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Pivot 2021: Dismantling/Reassembling

Leitão, Renata, Men, Immony, Noel, Lesley-Ann, Lima, Jananda and Meninato, Tieni

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Pivot 2021: Dismantling/Reassembling

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PROCEEDINGS OF PIVOT 2021

DISMANTLING REASSEMBLING

tools for
alternative futures

OCAD University
July 22-23 2021
Virtual Conference

Edited by:
Renata M. Leitão
Immony Men
Lesley-Ann Noel
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Design Research Society (DRS)
Pluriversal Design Special Interest Group

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Dismantling and Reassembling
Tools for Alternative Futures

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Editors

Renata M. Leitão
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Pivot is a series of virtual conferences organized by the Pluriversal Design Special Interest Group (SIG) of the Design Research Society (DRS). Pivot's first edition, PIVOT 2020: Designing a world of many centers, was hosted by the Phyllis M. Taylor Center for Social Innovation and Design Thinking at Tulane University. The 2021 edition was hosted by OCAD University (Toronto, Canada) <https://pivot2021conference.com>

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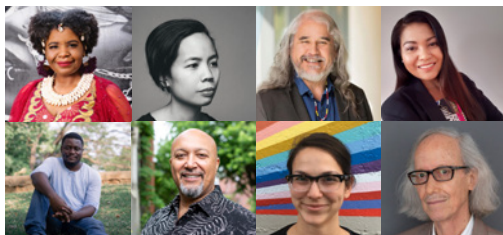
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Land Acknowledgment

This event was hosted by OCAD University in Toronto, Canada. OCAD University acknowledges the ancestral and traditional territories of the Mississaugas of the Credit, the Haudenosaunee, the Anishinaabe, and the Huron-Wendat, who are the original owners and custodians of the land on which we stand and create.

Because we gathered in a virtual space, we came together from many different traditional territories. And as you read the proceedings, our readers also stand on and come from multiple lands. So we would like to allow a moment for each one of you to acknowledge and consider the significance of where you are and your relationships to the lands and the original peoples who called that place home.

As Pivot has a commitment to decoloniality, we also acknowledge the several Indigenous persons worldwide who are murdered defending their lands every year. Dispossession of lands is not a tragic past, it is still happening.

Foreword

Renata M. Leitao

Pivot is a series of virtual conferences organized by the Pluriversal Design Special Interest Group (SIG) of the Design Research Society (DRS) — co-chaired by Lesley-Ann Noel and me. Our main goal has been to connect designers, researchers, and changemakers across the world who share similar interests and values. We are interested in decoloniality, societal transformation, and practices for alternative future-making, particularly those that emerge at the political margins. We understand that significant social change takes place at the margins—even if the Center prefers to position itself as the great savior and the source of any kind of innovation.



Renata M. Leitao, Chair of the Pivot 2021 conference, co-chair of the DRS Pluriversal Design Special Interest Group. She is an Assistant Professor in the Department of Human-Centered Design at Cornell University and an Adjunct Professor at OCAD University.



Immony Men, Co-chair of the Pivot 2021, co-director of the Public Visualization Lab (PVL). He is an Assistant Professor of Interaction Design in the Faculty of Arts and Sciences at OCAD University.

Since last year's conference, PIVOT 2020: Designing a World of Many Centers, I learned that there are many of us, pluriversalists, spread all over the world. We gathered on June 4th, 2020, at the beginning of the pandemic and a few days after the murder of George Floyd. Our world has changed since then. Not only is Covid-19 still here, but we had a very intense year with ravaging wildfires and social unrest in many countries. It seemed that our planet is was on fire. People have never talked so openly about diversity, racism, decolonization, decoloniality, pluriversality, and environmental issues.

In late 2020, we realized that we needed to organize a second conference to keep the conversation going. We had to organize a Pivot 2021. I'm grateful to Immony Men for joining us as a co-chair. I'm grateful to the Organizing Committee (Laura, Nicholas, Pawel, Mari, Maria, Michele, Sucharita, Manuela) for embarking on this adventure and offering support and creative input. Pivot 2021 would not have happened without our conference coordinator, Jananda Lima.

This year, we launched a call for papers with the theme of *dismantling and reassembling, tools for alternative futures*. Why dismantling

and reassembling? People have never talked so much and openly about decolonization and decoloniality. Nonetheless, I started to worry about the emphasis on dismantling as the pathway to change. In other words, I have seen much more criticism than generative conversations. Certainly, there is a lot to be dismantled. And trying to create something new without dismantling the old smells like denial and greenwashing. However, decolonizing our society or generating new models of life cannot be a simple removal of Eurocentric,

Change is about leading our thinking and practices towards unfamiliar pathways and possibilities, something that entails discomfort and doubts. We are trying to create a world that we do not know yet, new patterns, new ways of making and being.

patriarchal, or capitalist elements — i.e., the same world we are familiar with, minus the troublesome pieces. Change is about leading our thinking and practices towards unfamiliar pathways and possibilities, something that entails discomfort and doubts.

We are trying to create a world

that we do not know yet, new patterns, new ways of making and being. It seems that people know the general direction we should go, but there is the challenge to create the pathway towards there—where to step, how to step. Therefore I believe reassembling is crucial, enabling us to engage with materiality and create actionable propositions. Reassembling is not the same as creating “solutions”, but the explorational practice that leads to new (not-yet-known) tangible experiences.

We saw Pivot 2021 as a chance to walk our talk, designing a conference that would allow people to get in contact with multiple worldviews, ways of knowing, voices, and accents. Reassembling for us includes the re-organizing of spaces, resources and networks for designers, researchers, artists, and speakers by offering a discursive platform for sharing their perspectives on transformative gestures and models for practice and thought. We invited people we deeply admired as keynote speakers with the concern to bring together different perspectives from people of color and from the Global South. We were delighted to receive Dori Tunstall, Arturo Escobar, Bayo Akomolafe, Jason Lewis, Dany Pen, Casey Mecija, Sharon Stein, and Cash Ahenakew.

To begin these conversations we launched a call for papers inviting people to reflect and to submit abstracts based on the conference theme—tools for dismantling and reassembling and alternative future-making— and to submit abstract. We were thoroughly surprised by the response to the call for participation. We received 126 submissions from 28 countries. Through a peer-review process, our board of reviewers worked hard to offer useful feedback to everyone that participated. Several folks who had unsuccessful submissions emailed us to thank us for the careful process and generous feedback. I am very

grateful to all the reviewers who dedicated their time to making this conference possible.

We also aimed to create a format of virtual conference that enabled meaningful and accessible conversations. After over one year of working online, most folks were familiar with Zoom meetings. We decided to hold keynote presentations and parallel panels on Zoom and as a way to reserve informal conversations for the SpatialChat rooms. I believe that conferences are not only spaces to present and discuss ideas, but opportunities to make friends, bonds, connections, and enjoy each other's company. We included a lunchtime musical presentation each day featuring Brazilian musicians, Nicholas Torreta and Juliane Gamboa & Léo Brum. It was a very enjoyable experience to dance, celebrate and have fun together (special thanks to the organizers of the conga lines).

For me, it was important to give Pivot 2021 a Brazilian flavor, since I am Brazilian, as well as Jananda and part of the conference committee (Nicholas and Manuela, Lesley studied in Brazil). In common, we four have worked and lived in the Global North for many years. My brazilianess is present in everything I do and create. After the conference, Immony expressed similar sentiments about forming these meaningful bonds during the conference, he mentioned his excitement and honor to moderate and a unique panel discussion with Casey Mecija and Dany Pen, both highly-respected (Khmer and Filipinx) leaders and peers.

We have to acknowledge the outstanding work of our graphic design team. Jananda Lima created the visual identity for the conference and played an important organizational role in guiding design decisions with the team. Dorsa Kartalaei created captivating virtual environments on SpatialChat, including the beautiful Green Room and the Stage, and promotional social media posts. Jonathan Silveira offered his specialties with video production for online events by creating the video bumpers and the Zoom background that were used for presentations. Lilian Leung designed and developed the digital infrastructure for our website. Thank you everyone for offering an overwhelming level of care and attention for this conference!

We had a great team of graduate assistants and OCAD's AV support staff who helped the conference happen: Abedar Kamgari, Candide Uyanze, Mairead Stewart, Renzi Guarin, Sayeda Akbary, and Omar Qureshi. Thank you! We would like to thank the conference committee and all the reviewers for their valuable time and contribution. We are grateful for the support we received from OCAD University, particularly from the Research Office (Leila Talei and Heather Robson) and from the Design Research Society. Special thanks go to the Social Sciences and Humanities Research Council of Canada.

Finally, we thank the authors and participants of PIVOT 2021 who responded to our call, sent us their contributions, and participated in the conversations.

We hope you enjoy these proceedings!

Opening Remarks

Lesley-Ann Noel



Lesley-Ann Noel, Pivot 2021 co-chair, is an Assistant Professor at the College of Design at North Carolina State University. Her current research focuses on co-design, equity, social justice, and speculative design in public health, social innovation, and design education.

Welcome to the proceeding of Pivot 2021: Dismantling/Reassembling, tools for alternative futures. I am Lesley-Ann Noel, one of the co-chairs Pivot 2021, and co-chair of the Pluriversal Design Special Interest Group of the Design Research Society. Pivot 2021 was organized by both the Pluriversal Design SIG, and our generous hosts and colleagues at the Public Visualization Lab of OCAD University. During our conversations over two days, we aimed to identify tools and practices of dismantling and reassembling that could favor ways of reshaping human presence on Earth, as well as provide concrete cases of alternative future-making from all around the world.

The idea for the Pluriversal Design Special Interest Group¹ was born after the conference DRS 2018 in Limerick. Renata Marques Leitao and I wanted to create a radical space within the DRS (Design Research Society), where we could challenge hegemony in design, where we could discuss design from many different points of view other than the dominant European and American narratives, a space that would welcome many different ways of knowing and doing and being. With our colleagues, Tanveer Ahmed, Nicholas Torretta, and Xaviera Sanchez de la Barquera Estrada we formed the Pluriversal Design Special Interest Group, which was approved in late 2018. We've only been around for just under 3 years, but it has been such an exciting journey so far! With projects like the PIVOT conference which was hosted by Tulane University in 2020 and our Pluriversal Design Book Club, where we introduce designers to writers from diverse backgrounds such as Indigenous writers, Latin American decolonial scholars, writers from the African diaspora.

When we formed the special interest group we set a target, saying that we would recognize our success when:

1. There is greater participation within the DRS, including in other SIGs, of designers from outside of mainstream design practice.
2. There is a recognition of the importance of the multiple perspectives within design research, including those of people from colonized or oppressed parts of the world.

¹ www.designresearchsociety.org/cpages/sig-pluriversal-design

3. There is greater recognition of and interrogation of historical hegemonic power imbalances within design research.
4. There is a 're-orientation' of design to incorporate multiple perspectives and views and a focus on multiple ways of doing and understanding design.

Pivot 2021 is an example of this success. We didn't know that our fringe group would meet these targets so soon. Our niche conference received 125 abstracts, and close to 200 people registered to attend. This mass of people attended Pivot 2021 to discuss 'how might we dismantle the structures of patriarchal capitalist Modernity, and how might we reassemble the debris into new models of being and alternative futures. The beautiful Call for Papers² was led by Renata Marques Leitao with input from many members of our organizing committee: Dr. Laura Murphy (Tulane University), Prof. Michele Washington (Fashion Institute of Technology), Dr. María de Mater O'Neill (Rubberband Design Studio), Prof. Pawel Pokutycki (Royal Academy of Art), Prof. Maria Rogal (University of Florida), Prof. Sucharita Beniwal (National Institute of Design), Dr. Manuela Taboada (Queensland University of Technology) and Nicholas B. Torretta (Umeå Institute of Design) and Jananda Lima (OCAD University), our conference coordinator.

It is both exciting and frightening to see the explosion of the use of words like decolonization, hegemony, equity, oppression, emancipation, and liberation not just in a fringe space. Now that people know what these words mean, and how to use them, let's get people to a place of action.

This conference was meant to not just be a talk shop. We wanted people to share theory, actions, and practice. People often ask questions like 'How do we decolonize this? How do we make something inclusive, pluriversal, anti-hegemonic, anti-racist, anti-sexist, anti-ableist, etc. We asked people to share their 'doing' examples, so participants could leave with some clear examples on how to move beyond talk and into action.

We hope you will be inspired and energized by reading the papers. Please also, visit the [Pivot 2021 website](https://www.pivot2021conference.com/)³ and watch the videos of the sessions.

² Included in the editorial

³ www.pivot2021conference.com/

We hope that you enjoy the proceedings as much we have enjoyed curating them, and I look forward to connecting with you at other events of the Pluriversal Design SIG and the Design Research Society.

Pivot 2021 Editorial

Dismantling/ Reassembling

Tools for alternative futures

Renata M. Leitaó
Jananda Lima
Tieni Meninato

The Pluriversal Design Special Interest Group of the Design Research Society (DRS) and the Public Visualization Lab of OCAD University invited designers, scholars, artists, and changemakers for two days of intercultural conversations about decoloniality and societal transformation. Pivot 2021 aimed to identify tools and practices of dismantling and reassembling that could favour ways of reshaping human presence on Earth and concrete cases of alternative future-making from all around the world.

As the world faces multiple colossal, interconnecting crises — COVID-19, social unrest, climate crisis, ravaging wildfires, the frightening spread of authoritarianism, and so on — there is an increasing awareness that the Western ways of life have reached a crossroads. As a result, what is currently asked from humanity is more than damage reduction but a profound societal transformation: reconceiving cultural and economic models and changing our ways of being, thinking, learning, making, relating, and so on.

The theme of Pivot 2021 focuses on the tools that we might design and use to dismantle the structures of the current civilizational model (aka patriarchal capitalist Modernity) and to reassemble the debris into new models, converting debris into the nurturing humus for worlds in the making. By tools, we refer to not only artifacts but also to services, symbols, rules, institutions, policies, pedagogies, systems, environments, and so on (Illich 1975). Briefly, tools constitute aspects of social life that we deliberately create to (re)shape the tangible reality. We do not suggest that the entire Modernity is harmful. Still, many of its tools and structures have not only failed to deliver their promises but also led us to the verge of a global ecological collapse.

We conceive dismantling and reassembling as the two interactive and complementary movements of social change. First, we need a phase of dismantling

structures and unlearning normalized ways of thinking, being, and making. This conference also aims to move the discussion around decoloniality beyond the (necessary) dismantling phase. After dismantling, the old structures' debris – energy, nutrients, materials, bits, and pieces – have to be reassembled in new ways, offering the rich humus for growing new worlds.

Because design emerged as a recognized expertise and career path in the context of the Industrial Revolution, the foundations of our field are interwoven with the project of Modernity and its worldview. This conference is part of the movement to detach design (as a discipline and activity) from the values and beliefs of patriarchal capitalist Modernity and to redirect it towards new styles of world-making.

But what new ways? How would we like our world to be? What kind of new society? Unquestionably reassembling leads us to unfamiliar and uncertain territories, as we have to design a society that we do not know yet.

Because this conference was organized by designers and design researchers, this discipline or activity was at the center stage. Design is one of the disciplines/activities devoted to creating tools to (re)shape the world, referring to human practices of world-making. As we know it today, design refers to a particular kind of world-making practice that helped shape the modern capitalist world in which we

live. Because design emerged as a recognized expertise and career path in the context of the Industrial Revolution, the foundations of our field are interwoven with the project of Modernity and its worldview. This conference is part of the movement to detach design (as a discipline and activity) from the values and beliefs of patriarchal capitalist Modernity and to redirect it towards new styles of world-making.

South-North/North-South

One of the main goals of the Pivot virtual conferences is to create a community interested in innovation theories and practices for alternative futures, especially emerging from the political margins and communities of the Global South. In addition, we aimed to build bridges between Global South and Global North and to diversify ideas, cultures, accents, and voices.

We invited, as keynote speakers, people who really inspire us. We were delighted to receive Dori Tunstall, Arturo Escobar, Bayo Akomolafe, Jason Lewis, Dany Pen, Casey Mecija, Cash Ahenakew, and Sharon Stein. Each one of them brought a different perspective to the discussion on societal transformation.

Call for Submissions and Sub-themes

We invited interested designers, artists, scholars, and changemakers to reflect upon the conference theme (and sub-themes) and submit a long abstract.

On top of the main themes — the tools for dismantling and reassembling and alternative future-making — we also suggested a few sub-themes to challenge participants to emancipate their thinking from the "grammar" lexicon and conventional categories of the Western worldview.

THE PLURIVERSE

The concept of the Pluriverse, a world where many worlds fit, challenges one of the pillars of Western Modernity: 'universalism' — the idea that we all live in a single world (and that the Modern Western world is the ideal) — in favor of multiple possible worlds that nurture and respect life on Earth (Escobar 2018). The Pluriverse framework embraces the idea that significant societal innovations, valuable practices, and alternative futures are emerging from the political margins and communities of the Global South (Kothari et al., 2019).

FROM SEPARATION TO INTERDEPENDENCE WITH NATURE

A pillar of Western thought is the separation between culture and nature that does not find correspondence in many other knowledge systems. As people do not see themselves as part of nature, nature is something to be controlled and exploited. This separation created the conditions for the environmental devastation that we experience today.

How would our tools change if we understood our planet as an interconnected living system?

How would design and our modes of production change from a perspective of interdependence?

LINEAR VS. CIRCULAR TIME

The idea of linear evolution and growth is one of the foundations of modern thought but is also a wellspring of unsustainability. Several non-Western cultures have a circular notion of time. A circular future could be a notion of a future that includes memory and ancestrality.

How would a circular notion of time change our style of world-making, the practice of design and strategic thinking?

How could the knowledges of the rhythms and cycles of life from cultures of the South or even from our ancestors be integrated in the design of the future?

REPAIR AND REPURPOSING AS DESIGN

Our industrial modes of production follow a linear system, in which design refers mainly to the production of the new. In a culture obsessed with novelty, objects are not designed to last, age well, and be repurposed; on the contrary, we get 'built-in obsolescence.' There is no need to explain that most industrialized objects do not disappear from the environment (only a small amount of plastic is recycled). Trash is merely moved out of people's sight, usually dumped on marginalized and vulnerable peoples. Thus we make the case to put repair and repurposing at the center of our thinking of design for sustainability.

In what forms can repair and repurpose serve as tools for design longevity?

What is a design that transforms and evolves with ageing?

NON-COLONIAL FUTURE THINKING

Within Modernity, any alternative to an industrial market-oriented future is seen as a return to the past. The hegemonic narrative of the future obligatorily passes through the Global North's innovation, economic model and modes of production. However, alternatives do not lack in the world.

How to integrate into future thinking the cosmovisions and visions of the future of Indigenous, Afrodescendant and place based-communities?

What tools can be created to facilitate this process?

LEARNING WITH THE SOUTH

As a relic of colonialism, the Global North does not recognize much of the knowledge, innovations, and technologies produced by the Global South as valid contributions to the future. There is a tendency to extract only the bits and parts of the South's knowledge that fits Western epistemology, without respect for the communities' knowledge systems.

What ways of using design or teaching design created by and for people in the Global South are deeply rooted in their specific contexts and worldviews?

EDUCATION FOR NEW WAYS OF BEING

The focus of our educational system is still to prepare workers for industries and the professions of modern life without much concern for the mental health and well-being of students and even less for the health and flourishing of the environment and societies.

Our society has tools to educate for the marketplace, but how to educate for other ways of being in the world?

What tools can be created and used to enable the emergence of other styles of world-making and alternative ways of being in the world?

RESILIENCE AS FUTURISM

One could imagine that communities struggling with poverty, violence, and oppression would not be able to (re)design their circumstances and create new forms of life. And yet, it is precisely in those cases that many new visions for the future and life alternatives are flourishing. Nonetheless, it is still difficult to think about the future in contexts of extreme violence or poverty. People living in these contexts often say, "How to think about the future if we are dying today?" or "How to see beyond the circumstances of the present, when it involves pain and trauma in such extreme proportions?"

What are the tools to support the resilience, imagination, creativity, exercise of desire and self-determination of such communities?

COMMUNICATION(S) BETWEEN MULTIPLE WORLDS

We believe the Pluriverse involves reconceiving and redesigning the forms of interaction between different cultures. Therefore, we encouraged the participants to submit videos of their dialogues/collaboration with partners from different worlds.

How to create a fruitful dialogue between partners from different worlds in which both worldviews (or knowledge systems) are respected and deemed as valuable to the creation of the future?

IMPACT OF COVID-19 AND OPPORTUNITIES

There is no doubt that the COVID-19 pandemic, with its rupture with normality, created the conditions to accelerate the process of unlearning and dismantling established cultural and economic models and lifestyles.

What new forms of social life are emerging from this crisis?

About the Contributions

We accepted submissions in four languages (English, Portuguese, Spanish, and French) to reduce the obstacles for people who are not native English-speakers — people who can understand English but are not completely fluent.

We received 126 submissions in and from around the world (Mexico, Turkey, UK, Spain, New Zealand, Australia, Colombia, Puerto Rico, Finland, Brazil, India, Sweden, Slovenia, Greece, Portugal, Germany, China, Ecuador, Netherlands, Italy, Argentina, Japan, Pakistan, Paraguay, South Africa, Chile, USA, Canada). We were

impressed not only by the quantity but also by the overall quality of the work. All the submissions were peer-reviewed by our international board of reviewers, receiving at least two reviews each. For the conference, we divided the final 68 accepted contributions into 23 panels.

About the Conference

PIVOT 2021 was a two-day event (July 22-23, 2021) held online, using Zoom and SpatialChat platforms. Each day featured three keynote sessions, two musical performances, and 11-12 panels exploring different themes. All the sessions were recorded and are available on our website (pivot2021conference.com).

About the Conference Proceedings

This year's contributions span a wide range of subjects from Artificial Intelligence to diverse Indigenous Knowledges. These seemingly unrelated topics are connected through ideas of decoloniality and pluriversality, weaving a beautiful new possible reality. We have organized these proceedings into broader sections to facilitate your searching and reading experience. The introduction includes **Keynote Speaker Highlights** with carefully curated excerpts from all the keynote presentations at Pivot 2021. The first section of contributions, **Repair and Repurposing as Design**, gathers projects that question and propose alternatives for design practices, tools and methodologies. In section two, **Other Ways to Relate**, you will find contributions that expand design practices to consider trauma, care, listening and even fermentation. The contributions in the third section, **Narratives Between Multiple Worlds**, speak about designs that interconnect different worlds spanning diverse cultures, oppressed groups, art, geographic locations or futures. Finally, **Learning With the South** focuses on contributions that inform beyond the Eurocentric perspective. Short papers, full papers, and visual contributions are spread throughout and can be identified in each contribution's cover header.

About the Future

As we know that nothing is permanent, we consider this a journey rather than a project, leading us to the yet unapprehended, where every execution is an experiment that helps us re-calibrate our compass. Pivot 2021 allowed for countless learnings that are being incorporated into the planning of the next conference as well as re-imagining the future of Pivot.

As for Pivot 2023, we want to continue providing an informal space for connections to flourish and radically enhance the participation of community representatives from the margins — committing to putting their benefit first. This is not an easy task, as we have faced when organizing Pivot 2021, but our mission is

to always push the boundaries further. We believe that like us, the entire Pivot community is committed to expanding our capacity to engage with discomfort and with the unknown.

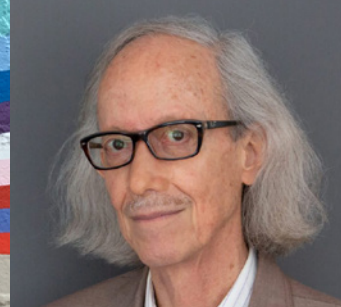
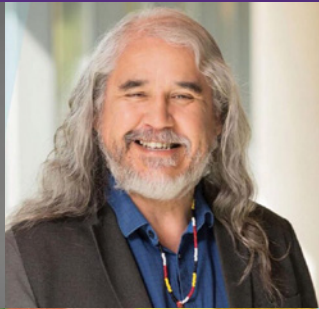
Learnings, connections and inspirations that grew from the open space created during Pivot 2021 are leading us to expand our horizons. We are creating the Pivot Design Research Lab to dive into intercultural and inter-ontological translations dedicating ourselves to making abundant and profound connections. To question, experiment and expand the meaning of connection – from knowledge as connection in itself toward connection in human and non-human relationships.

We are looking forward to being and becoming with you in the near future!

OCAD University
July 22-23, 2021

Pivot 2021
Virtual Conference
DISMANTLING / REASSEMBLING

Highlights Keynote Speakers



DORI TUNSTALL
BAYO AKOMOLAFE
DANY PEN
CASEY MECIJA
JASON LEWIS
CASH AHENAKEW
SHARON STEIN
ARTURO ESCOBAR

Keynote

Dori Tunstall



Elizabeth (Dori) Tunstall is a design anthropologist, public intellectual, and design advocate who works at the intersections of critical theory, culture, and design. As Dean of Design at OCAD University, she is the first Black and Black female dean of a faculty of design.

She leads the Cultures-Based Innovation Initiative focused on using old ways of knowing to drive innovation processes that directly benefit communities.

watch the full talk at
[pivot2021conference.com/
recordings/](https://pivot2021conference.com/recordings/)

Excerpts from the talk

Many Indigenous students still are feeling like they have to choose between the beauty of our diverse identities and being a professional designer.

...That is because the values design have been and still are in many ways colonial White supremacist, patriarchal and capitalist. To the extent to which communities and individuals have been harmed, the extent to which design represents those values means that design does not represent them.

So there's a lot of work that we've done in terms of putting Indigenous demands first, because we understand that by building trust with Indigenous communities who have been most harmed by the colonial process, that is the first atonement that we have to do in terms of harm.

Second, we have to live up to the institutional racism and white supremacy. To understand the ways in which the structures of the institution have done harm and has been excluding and set a set of goals for us to achieve, including hiring more people having the data, but also having the hard conversations within our institution as to what does it mean to be an institution where there's white supremacy and understanding it as a cultural set of values, not just things that are embodied in white bodies, but the ways in which we think about how we work, how we think and engage, how we share power, how we embrace discomfort and establish our values. And then we've established authentic relationships.

Keynote

Bayo Akomolafe



Bayo Akomolafe was born in 1983 into a Christian home, and to Yoruba parents in western Nigeria. Now living between India and the United States, Bayo is a father of Alethea Anya and Kyah Jayden Abayomi. Bayo is a widely celebrated international speaker, teacher, public intellectual, essayist and author of two books, *These Wilds Beyond our Fences: Letters to My Daughter on Humanity's Search for Home* and *We Will Tell our Own Story: The Lions of Africa Speak*.

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Excerpts from the talk

It's not up to us to save the day. And I think this is a very sticky saviour mentality, which was sometimes roped in and enlisted in, and it's sometimes instrumental to good outcomes. But that's that, it's limited.

It's constrained by the fact that the world is also doing things on its own. Right? It's very difficult to comprehend that at a very embodied place, that the world is acting. We're not the only ones acting. The world is acting with us.

I frame something in my writings I call errancy coefficient; that is, even our most resolute ideas fall away and do other things that we do not intend for them to do. So I slightly disagree with Audre Lorde when she says the master's tool will not dismantle the master's house because I think, along with the current barrage, that the master's tool doesn't stay faithful for so long to the master. In a sense, our computers are doing other things that we did not even notice, and showing up and materializing in other ways.

So it's no longer a picture of us and nature as our backdrop. The backdrop is now an actor. And so the question about what do we do with this is most meet a world that has pre intentional flows. And yes, you must do what you must do.

Keynote

Dany Pen



Dany Pen is a Human Rights/Court Advocate and Founder of Women's A.C.T, an international advocacy group pushing for equality, justice, empowerment and support for survivors of sexual assault, violence and domestic abuse. She was also formerly the Commissioner of Human Rights in Bermuda and the Education & Communication Officer at the Bermuda National Gallery.

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Excerpts from the talk

The design of selling violence is a powerful tool that can take lives, erase cultures, and oppress communities for generations.

Once countries were fully colonized, overruled, and invaded, poster designs for tourism began images of the exoticism leisure and the Indiana Jones adventure explore was marketed. Meanwhile, the people of color, PoCs, were being enslaved, trafficked and classified as domestic workers, servants, laborers comfort women, based on colorism gifted social status and sexual needs.

As we reflect on historical designs, and how violence is enabled, encouraged and sold to the mass, current-day attitudes regarding colonialism has definitely shifted in my opinion. POC voices are now being heard more than ever, and there are more channels and platforms for POCs to address their trauma, pain and injustices. POCs are able to speak of the violence and abuse that their communities have also endured for generations. Poster designs are now showing advocacy and the call to action for accountability. POCs have bore the weight of generational pain, trauma, violence and suffering.

For so long, the image of POCs has been used, violated, abused and exploited. We have been referenced as the other, the exotic, the less than, the minority with no voice, power, or rights. As artists and designers, we hold the responsibility and how we create and display images in society. And we have to take accountability on how our designs impact and affect POC communities. The design of selling violence is a powerful tool that can take lives, erase cultures, and oppress communities for generations. It is here and now that I implore artists and designers to critically think when you create if your works cause harm or encourage healing. We do have the power to stop selling violence.

Keynote

Casey Mecija



Casey Mecija's current research theorizes sounds made in and beyond Filipinx diaspora to make an argument about a "queer sound" that permeates diasporic sensibilities. Her work suggests that media production enables diasporic people to create forms of belonging that defy racialized ascriptions born from racism, colonialism, and their gendered dimensions. She is also a musician and filmmaker, whose work has received a number of accolades and has been presented internationally.

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Excerpts from the talk

Sound that defies objective measurements of taste or noise can be considered queer because it holds the potential to disrupt what we know about ourselves and others.

Sound offers a methodological framework that can uniquely register modes of collectivity and desire that may otherwise go unrecognized. I suggest that sound has an effect of quality, the capacious that allows Filipinx diasporic subjects, to create forms of home, love and belonging that defy racialized descriptions born from racism, colonialism and their gender dimensions.

I question how methods of listening that privileged sensation might provide a compelling inquiry into the multisided movements and desires of Filipinx people. I argue that when sound resists historical reference, such as musical parameters, it can extend into queer terrain. I use queerness to gesture to embodiment, but also to a psychosocial history in which Filipinx people have been rendered always already queer to Imperial sensibilities. Queerness not only refers to identitarian notions of sexually and racially marginalized people like myself, but also queerness indexes intimacies, ethics and sounds. Queerness is vibrations that can unexpectedly bring us into intimacy with what we might consider abject or repulsive.

I research projects on the queerness of sound to show how the sounds of diaspora, as they travel through and between material and an effect of registers, can be life making. Such sounds potentially provide respite from grief, stir pleasure and joy, act as a conduit for creativity and intimacy, and traverse emotional and geographic borders. Queer sound, then is an emotive expressive and recuperative force that becomes a condition of possibility.

Keynote

Jason E. Lewis



Jason Edward Lewis is a digital media theorist, poet, and software designer. He founded Obx Laboratory for Experimental Media, where he conducts research/creation projects exploring computation as a creative and cultural material. He is the University Research Chair in Computational Media and the Indigenous Future Imaginary as well as Professor of Computation Arts at Concordia University, Montreal. Born and raised in northern California, Lewis is Hawaiian and Samoan.

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Excerpts from the talk

To dream freely of agency is to romanticize it. We often imagine our good actions and forget the bad, we dream of our freedoms and often forget our responsibilities. But dream freely we must if we are to imagine worlds that grow from radically different founding assumptions.

We must romanticize our sovereignty, imagining moments, lifetimes, indeed generations and arrows and epics.

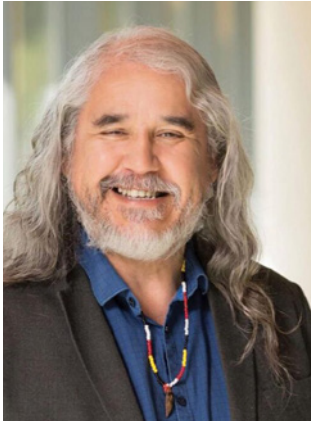
Living with the control flipped in order to get a feel for what it means to live self determined lives. The romance generates excitement, which in turn, generates energy to confront the unending everyday challenges that must be overcome to change the scenario. Those that are told about us, and which we tell about ourselves. We have to allow ourselves these romantic gestures.

The future takes practice, or at least it does if we want to shape a future defined by Indigenous sovereignties. Different passports must be explored to disentangle us from colonization. We need to continually remember our agency while evolving into new forms that are adapted to our lives now.

How do we practice the future? We create new stories about how we want things to be and inhabit them for a while to see how they fit. We come back to them again and again, each time learning something new about their texture, how this fits with that. We mutate the stories and follow the permutations where they might lead.

keynote

Cash Ahenakew



Cash Ahenakew is a Canada Research Chair in Indigenous Peoples' Well-Being and an Associate Professor in the Department of Educational Studies at the University of British Columbia. He is Cree and a member of Ahtahkakoop Cree Nation. His research is based in a commitment to the development of Indigenous theories and mixed methodologies, and addresses the complexities at the interface between Indigenous and non-Indigenous knowledge, education, pedagogy, medicine, ceremony and healing.

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Excerpts from the talk

We are trying to come up with different alternative perspectives, practices, and ways to maneuver in the colonial settler structures. It involves approaches that place Earth rather than human entitlements and identities at the center of the metabolic system that creates and sustains life and whose labor is most invisibilized.

Neurodecolonization is kind of a merger, Western and Indigenous knowledge moving an idea of decolonization from colonial drama. What we're trying to understand is more the critical indigenous focus of this idea on balancing the mind of reason and mind a metaphor, because it's pretty obvious to navigate this world, we need a practical kind of mind, but also the openness of experience and other types of existence and reality, right, based on relational healing therapies.

Many indigenous ways of knowing conceptualize pain as something that is not individualized and that can have a message and a meaning. For example, it can be an important messenger, a visitor, a teacher, an offer and a challenge. What is it offering? What am I learning from it? So from this perspective, well being does not require the elimination of pain. Most importantly, suffering is related to turning ones back on the messenger of pain. So pain and suffering are different. Pain is more of a physical experience, suffering is more of an emotional, and they're not necessarily attached to each other. But healing requires un-numbing and facing the messenger, facing the inevitability of pain, and developing the courage and resilience to have a relationship with it.

keynote

Sharon Stein



Sharon Stein is an Assistant Professor in the Department of Educational Studies at the University of British Columbia. Her work examples the complexities, paradoxes, and possibilities of social and global change in educational contexts. Through this work she seeks to support different communities to denaturalize the colonial logics, habits, and desires that keep us invested in harmful and unsustainable modes of existence, and to ethically encounter and engage other horizons of possibility.

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Excerpts from the talk

One of the big potholes is when it comes to wellbeing is this bypassing of political accountability. This especially happens often in New Age circles, of accessing the gifts of systemically marginalized knowledge systems, and their medicines in search of improved well being, but doing it from the same individualistic extractive frame.

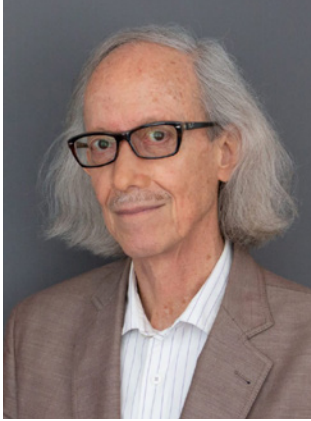
We know from our own experiences and mistakes in the collective, that there are a lot of potholes that come around when we're trying to, especially people like me, who were very much socialized within a modern colonial system, try to engage alternative, especially Indigenous ways of knowing and being.

The work of the collective is trying to often map these potholes so that we don't keep making the same mistakes, but rather learn from those mistakes, and try to figure out how we can relate to each other differently without knowing exactly where we're going. Taking it out of the context of, "we have well being so that we can be in service of the metabolism" toward "I'm going to go to a community, take what's useful for me and have no accountability to that community".

So our question is, how can we make an invitation to, yes, do this exchange, but do it in a way that is mature, discerning and accountable? How do we create relationships of exchange and medicines and knowledge that do have these principles of trust, respect, reciprocity, accountability and consent, none of which can be rushed? It's all very slow, lifelong work. We don't have the answer. We're just asking the question and experimenting with possibilities.

keynote

Arturo Escobar



Arturo Escobar is a Professor of Anthropology at the University of North Carolina, Chapel Hill, and Research Associate with the Culture, Memory, and Nation group at Universidad del Valle (Cali) and the Cultural Studies groups at Universidad Javeriana (Bogota). His main interests are: political ecology, ontological design, and the anthropology of development, social movements, and technoscience. Over the past twenty-five years, he has worked closely with several Afro-Colombian social movements in the Colombian Pacific, particular the Process of Black Communities (PCN).

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Excerpts from the talk

There is always something that exceeds the modern world and creates a different set of practices of making life and making life into worlds.

Diversity originates in the paradigm of cultural relativism, and it is a paradigm that makes a lot of sense, but it is still narrow, because it continues to be based on this idea that we have one world or one nature and many cultures. The problem with that is that it paved the way for neoliberal consensus of multiculturalism. So everybody's happy if we accept that the world is one and the best world is the modern, scientific, rational, liberal, secular world, and within that, everybody can accommodate themselves and have their own difference.

Pluralism is a stronger concept, but I think it still continues to be based on the idea that there are multiple belief systems or multiple cosmologies. It accepts the fact that these belief systems are to some extent incommensurable but I don't think pluralism questions sufficiently the idea of science as a belief system, so underneath all of these different belief systems, there is one that is more, that is true, which is science because science is not based on beliefs. But science, as we know, is also belief systems. It's a particular one.

And finally, in what ways is pluriversality different from pluralism? Precisely because it accesses incommensurability completely. Saying that different ways of worlding or different worlds, or different ontologies are incommensurable doesn't mean that they aren't connected or unrelated.

All worlds are completely interconnected, interdependent, intrarelated.

DISMANTLING / REASSEMBLING

Repair and Repurposing as Design



Communities of Practice: Doing Design Differently

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This paper reflects on the role of communities of practice in building and supporting critical alternatives to conventional, Dominant Design (Akama, 2021; Rosner, 2018). Dominant Design refers to design practices cultivated within our industrialised, imperialist, patriarchal, capitalist modernity. Discourses and practices addressing this include decolonising design, stemming from modernity/coloniality critique and Indigenous knowledge systems, and anti-oppressive frameworks for design, based in anti-racism and Black feminist scholarship. These discourses at the margins of the dominant discourse and practice recognise the need for critical alternatives to design practices (Abdulla et al., 2019; Costanza-Chock 2018; Mignolo 2007; Schultz et al., 2018). This paper considers communities of practice as one way of practicing with the challenges of overwhelm, fear and lack of understanding and resources when pursuing decolonising and anti-oppression discourse and practice. The paper discusses the importance of practice as an ethic, and the role of spaces for rehearsing, experimenting with new types of doing, while being held accountable in community.

Communities of practice, decolonising, rehearsal, Dominant Design

1. Introduction

Over the last three years I have workshopped, interviewed, casually-conversed, reading-grouped, forum-chatted and written extensively about ways to bring anti-oppression and decolonising discourses into practices on the ground within design practice and research. This research has been focused on how to make some of the more confronting, such as white privilege, and abstract, such as ontological shifting, elements of this discourse accessible in a way people can both understand and personally reflect on their relationship to the content. This research is deeply related to my own process as a white, Western, colonial settler, cisgendered woman, relatively high on the matrix of domination. I work in collaborative social practices, and in this practice bring the conditioning I have received through what bell hooks calls the, "imperialist white-supremacist capitalist patriarchy" (hooks, 2010, p. 3). Through this conditioning I bring this system in implicit and explicitly ways through who and how I am as a

person, my practices, my knowledge and frameworks For people who, like me, share characteristics that place us high on the matrix of domination, this system runs more seamlessly as a part of who we are-- how we are socialised, cultural and family backgrounds, education, philosophical and religious orientation. White, settler, cisgendered folks positions, beliefs, values, actions are consistently validated. Without critical awareness we can go through the world without feeling interrogated, unsettled or erased by the system. This work is to help bring the critical awareness that allows us to instead interrogate, unsettle and start to erase the system.

Through the work of postcolonial scholars and decoloniality we are asked to 'delink' our ways of knowing from the modern/colonial structures, "we must consider how to decolonize the 'mind' (Thiongo) and the 'imaginary' (Gruzinski) that is, knowledge and being" (Mignolo, 2007, p. 450). The structures of modernity/coloniality often form the basis of not only our education, communication and political structures, but also serve to define the normative and dominant ideas around identity, aesthetics and social relations. The work calls for radical and comprehensive structural change to the very fabric of our existence, demanding abstract critical actions such as delinking epistemologies and shifting ontologies (Abdulla et al., 2019; Mignolo 2007; Schultz, et al., 2018). This response emphasises deep, structural change beyond what we do, but to our very foundations of how we come to knowing and our very being in the world. This is emphasised to contrast with additive changes such as changing practice and methods in order to make design 'better', (Schultz, et al 2018), using more inclusive language, or building peoples' critical consciousness (Tuck and Yang, 2012). Not as a mode of criticising these actions or doings, but as a call for work that has a more radical, ontological orientation. This discourse from the margins calls for work that is engaged externally—socially, historically and politically engaged—while also working on the small inter and intra personal scales as individuals and communities to be better able to embrace and be with plural and heterogenous worldviews (Akama 2017; Escobar 2018). Design researchers have offered guidance in how one might begin or engage the work of delinking and shifting through examples of producing complex, reflexive positionalities (Akama, et al. 2019; Albarran Gonzalez 2020); acting with deeper understanding of political and civilisational histories entangled in project briefs (Agid 2018; Keshavarz 2020); and highlighting valuable alternative designs that are discounted by conventional industrial standards (Calderón Salazar and Gutiérrez Borrero 2017; Sanin 2021).

Within engaged, everyday practices of professional designers, saturated by dominant discourse, there is an **enormity** to engaging decolonial and anti-oppression critiques. It asks nothing less than what can feel like an impossible task of dismantling the all-pervasive and powerful "imperialist white-supremacist capitalist patriarchy" (hooks, 2010). There is an **intimidating complexity** to engaging in structural change that feels beyond individual spheres of influence. It asks for deeper practices of self awareness and vulnerability with practices of personal disclosure (Akama et al., 2019). There is **fear and cultural resistance** to being "exposed" or "getting it wrong" in professional and social contexts. Personal disclosure is **uncomfortable** and perceived as "self-centred", "tokenistic" or "virtue signaling" in research and industry practices (McEntee, 2020). There is a **challenge of proximity and time for the relationship building** that is necessary to create material, political or social change work collaboratively with communities in everyday design work.

2. Practice

As we recognise the personal and structural enormity in encountering decolonising and anti-oppression critique to design practice, it is also not a discursive critique, but an active process. Pedro Olivera describes, "the need to position decolonizing design as a *doing*...this process unfolds slowly and as a

constant struggle, without necessarily reaching a “pivotal point” of a “decolonial” or “decolonized” design” (Schultz et al., 2018, p. 93, emphasis in original). In a panel discussion at ServDes2020 design researcher Shana Agid discussed the work of practice. Drawing on an idea of practice from his work with leaders in the Transformative Justice movement, Mariame Kaba and Shira Hassan, she emphasizes practice as something that is done,

[W]ith the acknowledgement that you are going to mess up...get it wrong many, many times, and it is through that work that one becomes expert...but not expertise as....a moment of differentiation but having practiced enough to feel that you can do things with the people around you (Penin et al., 2021).

Agid’s presentation of practice and expertise offers a helpful re-frame in thinking about approaching the work to engage decolonising and anti-oppression work into our practices. By presenting expertise as something that is not an end goal, nor is it something that is ‘right’ or comprehensive, but is process oriented. It is not something contained in a moment, a knowledge of what to do and not do, but rather experience that builds over time, a commitment to show up for doing the work, for the learning and practicing, and engaging in the doing.

3. Communities of Practice

Communities of practice are one way of organising a community of people. It is characterised by a group of people who share a common profession, and come together for purposes of connecting, networking, learning and building capacities around particular topics and skills related to their profession. It is formally differentiated from other community groups as requiring a shared field of practice, a regular, though not necessarily formal, engagement and that the individuals are engaged in an actual shared field of practice (Li et al., 2009).

Communities of practice are a type of environment that can be used to promote and allow for developing an expertise of “having practiced enough to feel that you can do things with the people around you”. By this I mean considering a community of practice as a container that can hold particular *types of doing* which lead to a different kind of expertise. An expertise that is not about differentiating what one knows or doesn’t, but rather is demonstrable through doing that comes from long term commitments and practice. This is an expertise in process, rather than content¹. A focus of this work on process helps to redirect from surface level, additive changes, and begins to demonstrate deeper structural changes, even ontological, that an expertise in content often does not attempt. Considerations presented here to foster this container within a community of practice include: creating communities with shared political and social commitments; operating communities as open rehearsal spaces set up for feedback and repetition; curation of group members to ensure community accountability; and recognising the space as one in which the types of doing are not beholden to the timelines, budgets, client-demands and output-orientation of workplace cultures.

In my research I have drawn on my own experience of being a participant and organiser of communities of practice. Through I have attended to some of the ways these communities have created opportunities for my own development of practicing different processes. This includes *finding language to directly acknowledge my whiteness and privileged perspectives; trying (and failing and processing and learning)*

¹ This language and orientation to direct attention to process rather than content comes from the teachings and practices shared with me over many years as a committed student of Zen Awareness Practice through the Zen Monastery Peace Center, <https://www.livingcompassion.org>.

to create space 'safe' to share lived experience in a setting across varying levels of matrix of domination; becoming more comfortable and versed in work and practices that are not profit- or goal-oriented; being made aware by peers how power dynamics are being created and shifting; confronting my own unconscious erasing and discounting trans-identities through language and group dynamics. These situations point to changes in process, not tangible outcomes in which a concrete takeaway can be accounted for, a card deck created for others to learn from, but from continual engagement, with a common group of people, holding and creating space to practice.

3.1. Shared Commitment

The shared commitment that the community is joining around is a commitment to ethical, just, anti-racist, anti-oppression, decolonising practice in design. Examples from my practice include the CoDesign Club, a community of practice committed to the Design Justice Principles, the Design & Ethics group of Service Design Melbourne, a professional network organised to ethically challenge design practice and values in community, and reflective listening partnership², which is a one-on-one weekly check-in to reflect on our own respective work, emphasising process over content. The way a shared commitment is defined by a group could vary based on the identities of participants, professional roles, overall goals of the group (social, networking, professional support, consciousness raising, writing, etc.) as well as geographical location and pre-existing relationships. It is important to note that within an invited community of practice, diversity shows up. The research here is specifically for audiences who have privileges derived through race, gender identity, class, education. This work is trying to make legible how these privileges show up in our work in diverse spaces, and offer practices of attending to this. However, people within a community of practice can be there for different, or multiple, reasons. It is not exclusively a space for the kind of practices described for this specific audience.

3.2. Rehearsal space

Rehearsal spaces are known as committed time and space for practicing something particular before public-facing 'performances'. They are collectively run and organised with the purpose of practicing *and* providing productive feedback. A rehearsal space serves as both the space in which the work is created and a practice space which allows you to confront, review and change how you are approaching the work. What is meant here is not to rehearse to the point one is 'prepared' with the 'right' answers, but to have the opportunity to create the conditions for practice, feedback and reflection in order to develop better performance. Creating a rehearsal space encourages taking risks and trying things out you may not have done before.

Rehearsals are spaces informed by an ethic of practice. This helps *create the conditions* to allow for vulnerability of personal disclosure rather than polish of personal presentation. That this work will not be easy or done well the first time. It allows for a long-term commitment to learning and changing, rather than needing to *know* and quick fixes to practice. A community of practice might present the opportunity one needs to practice acknowledgement of country, ask for help on creating inclusive language for an event, share a sensitive story, get advice on calling in a colleague, or be a space for you to be asked to recognise some of your own ignorances and privileges from which you are operating. In specific action, these are perhaps small instances. But taken collectively, looked at from a process level, what they being to empower or shift is deeper than the act itself.

This requires that the community of practice be calibrated to a similar level of expertise and depth. It should be a space in which all can actively participate, as well as learn from others in the group. If there

² This professional practice is based on a similar program I have participated in for many years run by the Zen Monastery Peace Center, Reflective Listening Buddies.

are significant differences in hierarchy or expertise, it becomes a challenge for everyone in the space to be active participants. It risks becoming a passive environment, with a few leading conversations or presenting content, while others passively listen. Or conversely, a space that does not feel safe or appropriately challenging depending on how people are exploring their own identity, criticality or practice. People in a rehearsal space ideally should be able to contribute to the learning and development of others, as well as be challenged by the content and process brought by others.

3.3. Types of doing

Day-to-day work and life environments are shaped by budgets, timelines, expectations, solution-seeking and evaluation. These systems and structures, whether in industry or academia, are suffused with values of patriarchy, modernity and white supremacy. The processes and relationships that operate within these spaces are often subject, or easily fall into, ways of operating and values decolonising and anti-oppression work are actively pushing against. Communities of practice can be, through conscious effort, spaces that operate outside of these norms. Established outside the need to contribute in financial or productive terms, without the aims to create work, publications or even recognition. Through prioritising time and resources for building relationships, learning, sharing and processing, practitioners can come together to work, create and discuss in wholly different environments. This asks one to fundamentally reimagine a design practice that is not working towards outcomes, goals or client needs. It questions what might be a design practice of the future that operates outside of the current conditions which define doing. It is uncommon to come together with other professionals in our field in these ways. It can feel unnatural or uncomfortable. It takes time to learn how to be with others and learn without a sense of productivity, urgency or valuation.

Structural ignorance is a force which supports the kinds of structural oppression norms common in working environments. By removing some of the constraints prevalent in our places of work, these ignorances can be revealed to us and become a space to hold ignorance to account. This includes exposing ingrained behaviours and beliefs toward superiority, erasure, individualism and oppressive biases.

4. Conclusion

The necessary and crucial response for anti-oppressive and decolonising alternative practices is urgent and impassioned, but the work of getting there is slow and careful. This paper highlights the need to find places to work outside the immediacy and logic of solution-finding or fixing. To create practices which are shaped slowly and over time, through long-term, sustained commitments. In our immediate workplace environments it can feel impossible to engage alternative, anti-oppressive practices. Communities of practice may serve as a place for creating commitments, building skills, relationships and ways of working at a distance from these structures. The examples in this paper seek to discourage methods, tools and answers for 'how to' decolonise or create anti-oppressive practices, and encourages regular embedded practices, supported by community, attunement and reflection.

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About the Author

Kate McEntee is a PhD candidate in WonderLab, a co-design research lab at Monash University on the traditional lands of the Bunurong people in Melbourne, Australia. My research explores how to create shifts in our relationship to larger systems of oppression, within social collaborative practice. I work with communities in industry, non-profit and academic settings. Originally I am from northern Utah, the native land of the Eastern Shoshone and Goshute peoples. Raised in a Catholic home, in homogeneously white, small-town America, my worldview is deeply shaped by being white, Christian values, a bootstrap work ethic and individualism, and American exceptionalism. Through studying Religious Studies (BA) and working in interfaith dialog, then studying Transdisciplinary Design (MFA) and working on research around race and white privilege, and nearly 20 years as a Zen Awareness practitioner, I have been increasingly exposed to the limitations and biases embedded in and through my identity and worldview. Previous to this PhD, I also worked in corporate creative consulting in San Francisco and New York, and in academic research and teaching in Australia.

Redesigning Money as a Tool for Self-Management in Cultural Production

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Money is a crucial mediation for organizing in capitalist societies. Those who lack money cannot easily organize and raise collective consciousness. A naive form of consciousness may reject money to prevent greed and envy. Nevertheless, a critical state of consciousness should perceive money as a tool that can be redesigned to encourage different feelings that can ballast anti-capitalist transactions. This research describes Colaborativa@PE, a collective who designed digital social currencies to nurture solidarity bonds in several cultural production collectives spread through Brazil. These collectives embarked on an inquiry that led them to experiment with solidarity economy and self-management. The need to digitize their self-management practices brought them to Corais Platform, a free software/design suite that adopts a participatory metadesign approach. Colaborativa@PE's members joined the platforms' metadesign and proposed a new social currency tool, soon implemented. With this new tool, the Colaborativa@PE's associated collectives greatly expanded their self-management handiness degree, becoming more critical of its possibilities and limitations for organizing. While analyzing this case, this research concludes that the redesign process can be characterized as a form of conscientization in light of Paulo Freire's and Álvaro Vieira Pinto's works.

solidarity economy; self-management; cultural production; conscientization

1. Introduction

Money plays a central role in mediating social relationships in capitalist societies. In itself, money is a social relationship: a form of credit within a particular society represented by a symbolic medium (Marx,

1993). Following contemporary trends of flexible accumulation of capital (Harvey, 1989), money's medium is turning digital through credit cards, digital bank accounts, blockchain, and other technologies prone to biases against local communities (Paraná, 2020). Such biases are thoroughly questioned by those interested in mediating anti or alter-capitalist social relationships. Digital money is not suited to solidarity economy and self-management approaches, pretty much based on local relationships.

This research describes a network of cultural producers who designed several digital social currencies to enable self-management and solidarity economy, challenging these misconceptions. In Brazil, money had become a precondition for action in cultural production in recent years (Campregher *et al.*, 2016). Therefore, these producers had to try something different, as government funding drastically reduced. Some cultural producers sided with large multinational organizations to finance their projects. However, these demanded that cultural producers adopt an entrepreneurial mindset and turn their creations into valuable cultural products and services, or their costs would not be paid for as agreed upon. Even if the literature on creative economy states that such association may boost productivity (Florida, 2004), in this case, it ends up severely restricting cultural producers' freedom of expression and self-determination.

Another group of cultural producers tried distributing their works over digital networks. Soon they realized that the capital extracted from local producers quickly overflows to the global economy and never returns to the locality. While distribution networks accumulate capital, artists receive small, barely enough fees to sustain their lives, adding little to the local culture that inspired and formed the artist. Creative economy literature suggests that cultural producers accumulate capital simultaneously, developing their distribution networks through platform cooperatives (Scholz, 2016). However, cultural producers are primarily interested in culture, not in accumulating financial capital per se. Many attempts — including designing things (Björgvinsson and Severson, 2014) — to organize cultural producers have failed due to conflicts around money distribution and management.

The cultural producers described in this case tried something different: designing their digital infrastructure based on self-management practices (Pelanda, 2019). That effort led them to explore solidarity economy, an alternative economic model adopted by several social movements in Brazil, including those who crave self-management (Singer, 2006). In a solidarity economy, capital is not averted but distributed among the local community participating in the economy through community banking systems and social currencies. Products and services that did not have much value in the globalized economy regain social value within a localized economy. The community is then shielded from capital flight, enabling self-management.

This paper describes the digitally-mediated self-management practices of one of these cultural producers: Colaborativa@PE. This producer was chosen because they were pioneers in developing a working model and subsequently trained or influenced dozens of collaborative cultural producers across Brazil.

2. The Colaborativa@PE cultural producer

Cultural producers have organized solidarity economy circuits in Brazil since 2005 (Campregher *et al.*, 2016); however, they did not use advanced digital infrastructures. Colaborativa@PE is a collective of students, artists, journalists, photographers, video makers, and technicians who grew out of the cultural points national program (Jatobá, 2014). Colaborativa@PE is organized and managed by Instituto Intercidadania and other groups at Recife (Pernambuco, Brazil). The organization developed a social technology called collaborative cultural producer (Jatobá, 2015), a collection of methods and technologies to start local social businesses in Lan houses, info centers, or public facilities. The methods available in this social technology include technology education, multimedia archive, local media, accounting, media production, internal organization, and social credit.

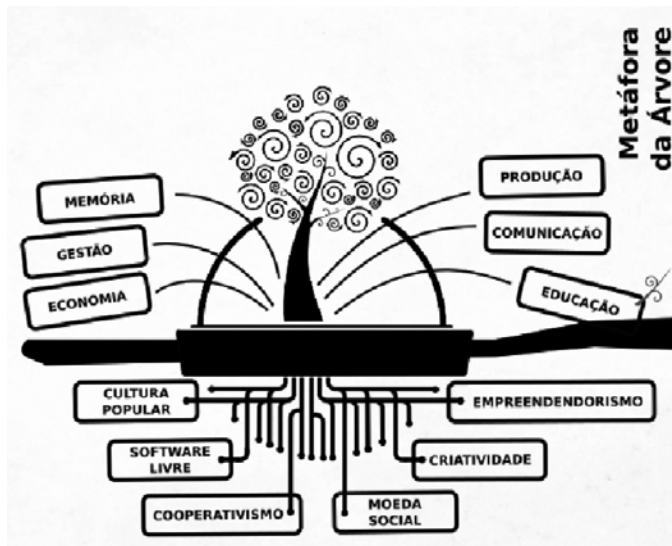


Figure 1 – Colaborativa@PE cultural producing activities.

From 2010 to 2011, the producers organized events and charged the featured artists in the complementary currency, which could be paid by doing some tasks for the event's organization or by giving the creations (mainly music CDs) to the organizers (Jatobá, 2014). The audience could purchase services and goods in social currency, but that meant having to organize future events. The local community received these economic relationships quite well, but managing all these transactions became a heavy task for the organizers.

After critically reflecting on their situation, the producer decided to expand their collective handiness.¹ to increase self-management. The infrastructural design (Pelanda, 2019) advanced further than solidarity economy and reached free software, seeking financial and technological freedom. In 2012, Colaborativa@PE docked at Corais Platform (Van Amstel *et al.*, 2014; Van Amstel and Gonzatto, 2016), a web-based platform with integrated collaborative tools built on Drupal framework, a free software framework that allows for real-time multi-user text editing, task management, blog, and mind maps.²

The producer initially wanted to improve their social currencies using the platform's radical openness to strengthen their transparency among their peers and business partners (Jatobá, 2014). They first tried to run their solidarity economy using the platform's online spreadsheet feature. They uploaded the open price list with their demands and offers, and the transaction logs. All the information became publicly accessible to anyone surfing the web. Yet they faced several limitations with the spreadsheets. They contacted the platform developers and joined the platform Metadesign Project, which aimed at redesigning the platform with the platform itself (Pelanda, 2019). In this project, they proposed a new

¹ Handiness concerns the space of possible projects of people in your local reality (Vieira Pinto, 1960). It is the way a person or social group can act, using the artifacts around them. A handiness can be more or less elaborated, depending on people's reality's social and cultural conditions. The development of collective handiness takes place through the transformation of the artifacts. The accumulation of work allows new artifacts that can lead to more useful and humane ways of acting and being in the world (Gonzatto and Merkle, 2016).

² Corais Platform "was launched in 2011 by Faber-Ludens Institute for Interaction Design. [...] Corais was developed to encourage design live in other institutions, not necessarily connected to Faber-Ludens. [...] Corais was meant to be the "Github of design", in analogy to the popular collaborative computer programming platform. [...] Instead of defining a code and imposing on hosted projects, Corais offered infrastructure for every project to define its own "code" to share gradually. It was expected that the diverse contributions in the project would follow a certain design code at some point, even if ill-structured and tacit." (Van Amstel *et al.*, 2014, p.1-2). Corais Platform is available at www.corais.org

social currency tool, which the developers took. A close dialogue started between the cultural producers sharing their expertise in solidarity economy and the developers sharing technical expertise in interaction design and free software module customization.

The tool design did not follow a traditional process of sketching, documenting, and prototyping interactions, as it is common in interaction design aimed at proprietary software or hardware (Löwgren & Stolterman, 2004). The tool was plugged right away into the running platform, and the code was tweaked many times as the cultural producers used it. After some weeks of tweaking, the new tool achieved a sound design, and the cultural producers used it smoothly.

Among the many economic ideas that became possible after developing the online social credit tool, the bike radio is tantamount. Colaborativa@PE put a battery-powered sound system on a bike and rode it across the university campus. The sound system played a 30-minute show produced by them, with local music and local ads. The exciting part is that this advertising could only be purchased in social credits. A neighbor's vegetarian restaurant and a grocery store purchased ads to support the show and the local economy circuit. The students could now pay for food using the social credit acquired from working for Colaborativa@PE. The advertisers got so excited about the exchange that they even hired some students to design other kinds of media, all paid in social currency.

A couple of months later, Universidade Livre do Teatro Vila Velha, another cultural producer from Salvador city, hired Colaborativa@PE as a consultant. This school was struggling with governmental budget cuts and had the idea of charging their students using the social currency — students would have to conduct maintenance and administrative tasks to pay for their studies. They had education technology activities, offered outreach courses, cultural events (like music festivals), debates, and food (with some local businesses that worked with lunch and fast food). All of these organizations accepted social credit in exchange for their services. In turn, with that credit, they could buy other services available in the local economy created by Universidade Livre.

The currency was designed openly among the students, including a face-to-face circular discussion and an online vote for the currency's name. From 2012 to 2014, the currency mediated more than 3.100 transactions among the 63 school members (Figure 2). The currency strengthened the student's bonds to the school, making them feel part of a vibrant community. In a few years, the theatre went from an almost state of bankruptcy to a nationally recognized center, having their student dramaturgies presented in many parts of the country.

After designing several solidarity economy circuits, Colaborativa@PE realized that for the social currency to work, a territorial pact between the circuit members was necessary. People needed to believe that the credit had real value. The backing of this social currency needed to be based on the concrete existence of a network between products and services. In most solidarity economy circuits, the social currency can be exchanged for official money — Reais as in Brazil; however, the cultural producers decided that their currencies could not convert to standard money. In this way, nobody could join the economic circuit without working for the community first. For example, if a new member wanted to purchase a service, they needed to acquire the necessary credit within this economic circuit. The social currency is not as hard to acquire as official money, allowing each participant to choose which cultural needs are most important in a particular moment.

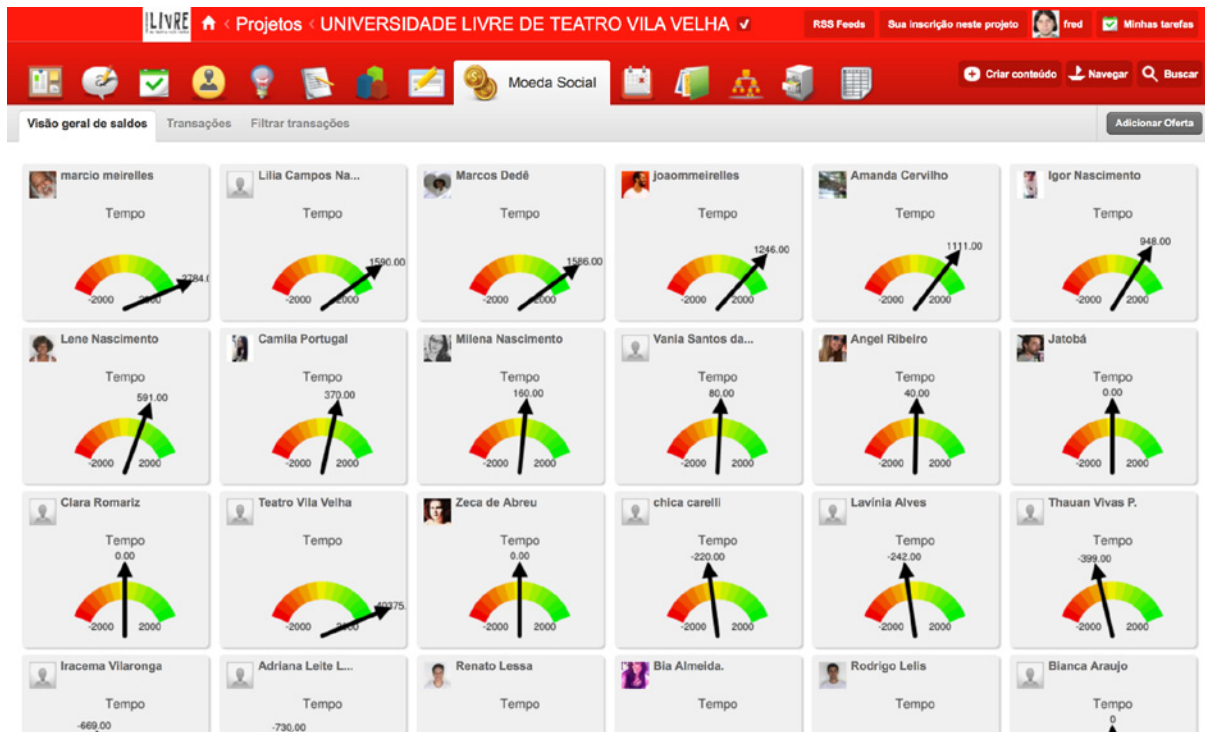


Figure 2: Social credit health overview in Corais Platform as used by Universidade Livre de Teatro Vila Velha. The meters display how much debt or credit an individual has in that economic circuit.

The main challenge at the beginning of a solidarity economy circuit is to convince the local community to leverage their territory. Doing the groundwork was key to collaborative cultural producers, articulating human relations among the economic partners. They had several dialogues to convince members that this was not a scam, that the circuit would work, and that people could offer. In other words, recognizing that the territory has an abundance of services and products available, despite the disinterest of capitalist economic circuits. In this sense, Colaborativ@PE exemplifies the importance of creating community moments and strengthening solidarity bonds. Moments of catharsis, of community empowerment, of recognition of the potential for work, such as when, in meetings, participants can say what they know how to do, are equally important for economic health.

In collaborative cultural producers, being a self-managed enterprise means that all management is done individually and collectively through shared leadership (Noronha *et al.*, 2018). Every task is self-managed by the person who executes it and the collective who provides the resources for execution. For example, the artists who joined the producer participate in cultural production and decide their collectively agreed norms in their territory as entrepreneurs. This process helps to agree on the network's credibility; everyone trusts and follows these rules. The transparent management of currencies in the Corais Platform is essential to make this pact. It is not about imposing a social bank: people participate in their design and are responsible for its consequences.

3. Conscientization and the production for the self

The redesign of money in Brazilian collaborative cultural producers cannot be fully understood without considering the role of conscientization or critical collective consciousness development, a process described first by Álvaro Vieira Pinto (1960) and second by Paulo Freire (1996). Vieira Pinto refers to consciousness as human beings, referring to both the individual and social groups (collective consciousness). For Vieira Pinto, the human being is a being that needs to produce its existence. As human beings, we are our consciousness because we need our minds, bodies, and tools to act in the

space around us. We are also our circumstances, our handiness, the relationships we developed with the artifacts around us.

The only way to qualitatively transform social existence (what a human being is) is by transforming the world around us. Redesigning objects, technologies, and structures lead to new possibilities for action, and therefore new ways of being in the world (Vieira Pinto, 2015). Vieira Pinto theorizes what could be called a critical flavor of ontological design (Willis, 2006), guided by a dialectical-existential perspective (Gonzatto, 2018; Van Amstel and Gonzatto, 2021).

As conscience is defined by its link with the world, with reality, Vieira Pinto (1960) investigated this issue and found two significant conscience modalities: critical conscience and naive conscience. These are not just opposing consciousnesses but a continuum between one and the other. However, its extremes can be distinguished for didactic purposes: critical consciousness is the relationship mode in which consciousness of the factors and conditions (objectives) determine reality. Even recognizing that reality is changeable, it seeks within it the relationships that shape the existence of human beings, and therefore, it also acts in reality to transform these conditions. The naive conscience, on the contrary, characterizes the conscience that is detached from its surrounding reality, unconditioned, or independent, rarely considering social transformation as possible from that vantage point.

According to Vieira Pinto, the formation of a critical conscience comes from collectively working for the self with and from the available handiness (Gonzatto and Merkle, 2016). In the case described, the workforce was observed as an abundant and necessary resource locally but alienated. People's work was either not required because the forms of a requisition in capitalism pass through a commodity form, or it did not return to the local economy. With social currencies, people began to realize that they could be entrepreneurs in their areas of expertise.

So, in this case, money redesign can be characterized as a process of conscientization (Freire, 1996), not just for its design, but because it was accompanied by: a) a critique of the oppressive reality, the social, technological, cultural and ideological relations; and b) the collective action of transforming this reality using more elaborate forms found in handiness. We can understand from the Colaborativa@PE case that the production of existence is enmeshed with the production of artifacts and, therefore, the design of the social money tool cannot be separated from the design of the social relationships mediated by it. When the cultural producers realized that they could redesign these social relationships by redesigning money, they enabled many economic transactions that would not be possible within a capitalist economy.

For example, the designer who worked for the vegetarian restaurant was unemployed at that time. He used his free time to create advertising posters and was paid with social currency, with which he could pay for lunch in that same restaurant for two months. In the conditions in which they found themselves, the restaurant did not perceive it as an investment opportunity to pay for posters, but in being able to offer their meals (in exchange for social currency), as an opportunity that cost little and that could have an impact in their territory. This transaction was beneficial for both. This transaction is not a simple barter because it is not an approximate exchange between two individuals but paid work within a network. Above all, the transaction was beneficial for the territory, which increased its offerings and possibilities for action.

In capitalist economic circuits, the subsistence of its members is not a goal but a means for wealth development. In a solidarity economy, subsistence is the goal, often expressed with the concepts like *Buen-Vivir* (Acosta, 2013). In the action of Collaborative.PE, it can be observed that, in a short time, the participants had access to food and work without depending on the traditional means recommended by the capitalist bias of the creative economy. This perception is felt by the people involved: they notice the result quickly. They realize their territory's abundance: people and their handiness.

From a perspective of naive conscience (Vieira Pinto, 1960), a territory could be seen as poor, with scarce resources. Nevertheless, by increasing the consciousness for the work available in the territory, it is possible to reach a transitory form of consciousness. First, the perception of the abundance of available labor, then the transformative action in this reality to make this work for the self, for the collective body that constitutes the community. This transition would be impossible to be done by just one isolated individual.

In this way, social currencies appear as a pedagogical concept, not only economical (Jatobá, 2015). Monetary exchanges can be made regardless of people's need for survival. In the cultural producers' network, people engage directly and begin to perceive value and look for opportunities in local activities. Entrepreneurs are beginning to recognize themselves as people with something to offer and who can be recognized and paid for. The described transformation would be impossible to be done by just one isolated individual.

In the creative economy based on international capital, each individual is faced with a large and complex one, which produces alienation by distancing people, territory, and products of labor. The product appears before the worker, and both are detached from the territory. Likewise, the infrastructure technology needed for economic transactions is presented as "natural," as if there were no alternatives (such as the solidarity economy).

4. The viable unheard-of digital solidarity money

We understand that the creation of cultural currencies by Colaborativa@PE cultural producers is an example of creating alternative forms of social relationships at the margins of capitalism. The cultural producers were oppressed in the class struggle endorsed by the creative economy, but they refused to accept that condition in a naive consciousness.

Vieira Pinto (1960; 2005) and Paulo Freire (1996) explain that the experience of oppression brings the oppressed closer to reality, as it poses the urgent need to build alternatives and transform that limit-situation. Initially, the oppressed may take the oppressor (and the oppressive structure) as their humanization model. For example, any artist can supposedly grow out of poverty in the creative economy and become a global entrepreneur that oppresses other artists. In a solidarity economy, artists gradually realize that humanization comes from the *viable unheard of* (Freire, 1996), with a new mode of being that overcomes the oppression. This new mode of being is usually already present within the handiness, not yet recognized, unheard of, but still viable.

We understand that participating in the design of their own technology helps recognize this condition as underdeveloped and release the *viable unheard-of*. Through technological production and modification, the limits of reality are presented. For example, it would be easier to use a Google Drive platform in their handiness. However, Google tools are not suitable for a self-management perspective. There would be a relationship of dependence that did not interest collaborative cultural producers. More than that, it would not be possible to adapt it to the specifics of their needs. Also, recognizing limit-situation is a critical conscientization step, in which is the perception that the local reality and its technologies are the ones that need to be improved, not only the foreign technology. For example, many transactions with social currencies are not possible due to the lack of a resource such as an app, which allows them to be carried out through smartphones (not just desktop computers). This technical relationship becomes a new idea to improve the work for the self continuously. Self-management is indeed management work for the self, not for the capitalist other who employs management to improve work exploitation and profit-making.

The design of the infrastructure of this network, instead of having profit as its center (through the exploitation of workers, which produces added value), had solidarity outcomes. Understanding and participating in the solidarity economy processes shows a progressive understanding that it is about

helping and recognizing work and other people through self-management. It was turning visible the people's existing work and the abundance of work available by these people.

We think that participation in the development of technology itself makes the cybernetic cycle of production of existence shorter. Technologies are not neutral (Vieira Pinto, 2005; Gonzatto and Van Amstel, 2017). When using technology from a global company, you need to wait weeks or months for updates, which does not always correspond to the community's interests (since the company has its own interests). Mastering the local technique allows for another type of iteration. That was how the direct contact between cultural producers and developers of the Corais.org platform emerged to create the functionality of digital currencies (Van Amstel *et al.*, 2014). A remarkable solidarity outcome comes from the widespread dissemination of anthropophagic practices across several collaborative projects (Van Amstel, 2020).

5. Final remarks

This research describes Colaborativa@PE, a collective that designed digital social currency to nurture solidarity bounds in several cultural production collectives spread throughout Brazil. It is a case of production of existence: through resuming work, which is abundant in the territory, converting from work to another, to become work for the self. This case is also an example of a conscientization process through projects, in this case, money redesign.

This research is yet another example that design research can learn from the experiences of the South of resistance from communities in the face of unequal distribution of resources and technologies. In the case here described, cultural producers developed their handiness to improve their social productions of existence — not despite, but from their underdeveloped conditions.

This research sought new meanings and ways of being in a world where the creative economy presents as an unavoidable standard for cultural production, mainly concerned with the global economic dimension but oblivious to local development possibilities. Using the resources already available at hand led Colaborativa@PE to a critical point of the conscientization process. Working with our reality led to the recognition of the possibilities and the limitations of the organization forms. Moreover, this led to a critical conscientization of the material conditions needed but already available for self-management.

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Solidarity as a Principle for Antisystemic Design Processes: Two cases of alliance with social struggles in Brazil

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In this essay we reflect on the possibility of politicizing participatory design processes by defending the notion of solidarity in Paulo Freire's thought. We present a critique of empathy as a relational practice in design, considering it to be an anti-dialogical practice that reifies subjects in design processes focused on developing capitalist commodities. As a counterpoint, we defend solidarity as a dialogical ethical principle and practice that is founded on consciousness and the inviolent and transformation of given reality (of oppression). To support our argument, we present two experiences where we live solidarity-in-praxis while promoting design engagements in Brazil. The first is a designer alliance with a collective of peripheral youngsters at the Terra Firme neighbourhood in Belém, Pará, in the northern part of Brazil. The other is an alliance with a national-wide popular education initiative that works with women's political education in Brazil within the feminist movement. In experiencing these, we borrow Freire's suggestion and argue for solidarity, as opposed to empathy, to build antisystemic design processes.

empathy; solidarity; Paulo Freire; design engagements in Brazil

1. Introduction

In this essay we outline theoretical paths and strategies to address the depoliticization of projectual processes in design and claim the notion of solidarity in Freire (1967; 2015) as a basis for a design with an antisystemic perspective.

In the first part, we present a critique of empathy as a relational practice in design projects. We recognize empathy as a very narrow notion, which delimits the designer's relationship with users to the conditions of commodity development. In this process, the designer has the task of accessing users' emotions, revealing their desires through products and services. Endowed with exclusive agency in this process, the designer acts as subject while the other participants, users, are reified and their historical, political, and social context is placed in the abstract for design purposes.

In counterpoint, we defend the notion of solidarity as an ethical principle that should guide engaged and politicized design processes. We understand solidarity as an action of political responsibility towards the critical recognition of oppressions and the overcoming of the oppressed-oppressor contradiction.

The praxis based on solidarity proposes to the designer a process of self-transformation by real engagement in the dialectical contradiction, posed by his or her position both in the design process and in the ordering of systems of oppression. This demystifies the uniqueness of creative designer subject and the solutionist perspective and, at the same time, enunciates the possibility of critical awareness about structural issues that define the need to generate a new product, service or any design solution.

Finally, we introduce two experiences of solidarity-in-praxis that bring concreteness to our arguments. The first is a designer alliance with the Terra Firme collective in Belém, Pará, in the northern part of Brazil and the other experience is an alliance with Universidade Livre Feminista, a popular education network within the feminist movement in Brazil.

2. Empathy in the design process

The notion of "empathy" has gained ground in design discussions since the formulation of Human Centered Design (HCD), and has projected itself as the essential skill of designer thinkers linked to innovation consultancies (Brown, 2010). In these approaches, empathy is recognized as the ability to put oneself in the other person's shoes and supposedly leads the individual to understand the world as the other person does. Dandavate, Sanders, and Stuart (1996) understand that empathy is related to the ability to understand and experience feelings, thoughts, and experiences even if they are not explicitly communicated. The authors believe that this ability is necessary to the designer because the recognition and response to these feelings would be, in this perspective, determinant for the success of products, since they allow the designer to anticipate solutions according to subjectively expressed needs. This competence, then, would allow the designer to design desirable solutions and meet the users' needs through new products or services.

For a HCD or Design Thinking process to be conducted, it makes use of previously developed design tools that supposedly allow the user to express himself or herself in a more rational or emotional way, according to the specificities of each toolkit. It is possible to notice that, in these approaches, the emotional factors of users or consumers are understood as the great "mystery" to be unraveled by designers and planners engaged in product or service development. The notion of empathy, in this way, is restricted to merely speculative and commercial objectives, even though the insertion of users gives the tools a consultative and, sometimes, participative character.

In this context, the designer's experience of empathy with users starts from a delimitation given by the product or service to be designed, that is, it is restricted to the specific conditions of the commodity. The empathy supposedly practiced by the designer is only able to unravel such mysteries in the relationship of the commodity with the user and in the exclusive environment of this encounter. Consequently, this experience reduces the understanding of a problem situation as a design opportunity, which, depending

on the given reality, leads to the abstraction of the concrete situation of oppression for design purposes, erasing significant issues that qualify the complexity of the investigated historical-political-social context.

The issue becomes even more tense when we understand that this empathic relationship, in fact, places all power of action (agency) in the designer, who guides the development of the commodity from his or her own perceptions, often claiming a "technical" profile influenced by access "to the deepest levels of user expression" (Sanders, 2002) to make the best possible decisions on that matter.

In design processes that have the notion of empathy as a principle, the unequal power relations between designer and researched subjects, who are reified, are strengthened and amplified to the extent that the designer defines what serves or not as a solution to a design problem identified by the designer himself or herself in a much broader and more complex situation (of oppression). Empathy in design processes, therefore, can be associated with the objectification and dehumanization of subjects, having the development of the commodity as its only interest.

3. Solidarity as a principle for antisystemic design practices

The critical approach to reality, which in Freire (1967; 2005) is part of the process of conscientization, can be a key moment to think of the design process as a process allied to the struggle of the oppressed. Freire (2005) highlights the importance of the educational process being forged with the oppressed, and not for the oppressed. In the same way, we defend design processes that are entangled in the collective unveiling of reality, where everyone understands themselves as political subjects, and where there is not one social group at the service or subjugated to another. This humanization allows the overcoming of the objectification promoted by the capitalist consumer culture, which hides the structural oppressions in order to "solve" its symptoms through products. The designers, aware of such relationships, position themselves on the side of the oppressed, understand themselves as the oppressed persons too, and start to fight in alliance with the others.

The defense of solidarity as a prerogative to promote a design with an anti-systemic perspective requires that we do more than just recognize that there is a problem, or worse, recognize that there is only a design problem. It is necessary to unveil the structures that engender situations of oppression, access the affected communities, and collectively build an identity of struggle, in order to contribute to the confrontation of the causes of the oppressive situation.

As Freire (1967) states, it is the critical insertion of oppressed subjects into a given reality that leads them to situated criticism and the desire to transform that situation, based on a lucid perspective of the historical and political context. The pedagogical character of liberation requires the commitment of the oppressed to overcome the situation of oppression to which they have been subjected.

In this way, revolutionary leadership understands the liberation process as a pedagogical process, but not without method. According to Pinto (1986), method is the intention transformed into act, it is the expression and materialization of one's own consciousness. The pedagogical experience of liberation occurs in co-intentionality, in contrast to a pseudo-participatory process.

We reject the notion of empathy in participatory processes because we understand it to be part of an anti-dialogical design practice. To explain this issue, we return to Paulo Freire. When presenting the theory of anti-dialogical action, which creates and perpetuates oppressions, he states that "one of the characteristics of these forms of action, almost never perceived by serious but naïve professionals, is the emphasis on the localist view of problems and not the view of them as dimensions of a totality". In this elucidation, we can consider that the notion of empathy confounds the understanding of the totality of oppressive situations and limits the agency of the subjects by concealing the dialectical character of the

structures of oppression, in this case in particular the class structure and, therefore, the monopoly of production that underlies the capitalist mode of production, which in the processes discussed here, has in the designer the subject that owns power and agency.

Solidarity, on the other hand, is part of a dialogical practice of design, where an alliance between subjects is possible in the unveiling of reality and in confronting situations of oppression. In this way, we can understand that there is a shared agency. This agency is, according to Fernandes (2016), a primordial element in praxis, the dialectical unity between theory and practice that enables movement amidst the concrete contradictions given by the situation of totality and by the design process inserted in this context. Through shared agency and in the collective exercise of praxis, the subjects develop capacity and motivation to seek a liberating and humanizing path, playing a dialectical role in relation to the oppressive structure between oppressed and oppressors.

Moreover, solidarity-based praxis is a process of self-transformation for designers through a real engagement with the dialectical contradiction inscribed by their position in the project and within systems of oppression. This engagement demystifies the designer as creator and problem-solver and, at the same time, enunciates the possibility of a critical consciousness about structural issues that define the need (or not) to generate any design solution.

4. Two cases of alliance with social struggles in Brazil

We present two experiences where we live in solidarity in practice while promoting design engagements in Brazil. The first is a design alliance with the collective Terra Firme in Belém do Pará, in the northern part of Brazil. Terra Firme works with multiple artistic expressions as a practice of resistance in a violent neighborhood. The other experience is an alliance with a popular education network within the feminist movement in Brazil. The Free Feminist University is an anti-systemic platform for political education that aims at thickening political consciousness within popular women and strengthening the feminist struggle from the bottom up.

4.1. Unveiling oppressions through design with the Terra Firme Collective

An alliance process to overcome oppression has been promoted since 2018, through addressing design practices with a group of young people from the outskirts of Belém. The youth collective is dedicated to promoting social transformation in the periphery, through cultural actions in different artistic languages. It develops workshops, exhibitions, debates, joint efforts and campaigns in favor of peripheral youth and the valorization of Afro-indigenous ancestry. These young people suffer daily oppression from class, gender, race and sexuality. Social, cultural and economic opportunities are historically denied to this group, which is also the main target of the violence suffered by the periphery, driven especially by the dispute between the police and the militias over the drug market in the neighborhood.

With the advent of the new coronavirus pandemic, the peripheries of Brazil suffered from the rapid spread of the virus in parallel with the dismantling of the health system carried out by the Federal Government, represented by the neoliberal president Jair Bolsonaro. The lack of basic sanitation; the stocking of small houses; the suppression of demand for public health services, among other reasons, was the trigger for many residents of the Terra Firme neighborhood to be contaminated. The crisis in the periphery motivated young people to promote actions to combat the new coronavirus, including campaigns to collect food and hygiene items.

In a permanent solidarity relationship, remote design activities were carried out, joining forces in the fight against the pandemic through fundraising and income generation. Several artistic projects were developed and their results transmitted online, with wide reception from the public. Recently, face-to-

face activities have been resumed with the cooling of the pandemic and the increase in vaccination in Brazil. In this alliance for overcoming the challenges imposed by the pandemic, we understand that design practices that aim to raise engagement processes cannot be punctual, much less hierarchical. The structural complexity that generated the problem, against which the designer is invited to act, requires a deep analysis of the context that generates the problem, promoting an understanding of the situation of oppression. This process requires time and continuous engagement, transforms into political participation, and promotes the construction of a new reality.



Figure 1 Collective of young people gathered before the pandemic to plan their future actions.



Figure 2 Campaign to collect food carried out by young people from the Terra Firme neighborhood. December/2020.

4.2. Politicization through feminist and popular education

In the face of neoliberal advances and its progressive agendas appropriation, the political education action in social movements reaffirms its structuring role in the construction of political subjects in social

struggle. The Free Feminist University (ULF)¹ is a political education organization that operates in Brazil with a focus on the political education of popular women active in the feminist organized movement.

ULF was born as a Distance Education initiative in 2009, when this kind of dynamic was not usual in Brazilian reality. The challenge of addressing issues dear to feminism with popular women marginalized from access to technologies through a digital educative program has always been an emblematic issue in ULF's action.

In 2017, when I joined ULF through my militancy in the Articulation of Brazilian Women, a movement to which ULF is linked, we began to work with a perspective of hybrid courses and I could act as a local educator (working with classes of 20 women in person) and online educator (mobilizing discussion on platforms with a group of 150 women throughout Brazil). From 2020, with the pandemic, we returned to the online modality and currently ULF is going through a reformulation of its political and pedagogical project and is trying to respond to the needs posed by the feminist movements and their political organization. We discovered some clues for our reframed political orientation from a research conducted in 2019² (Branco; Lima, 2021), but it was from the experience of the articulation of the feminist movement during the pandemic, when many activities of the political organization against Bolsonaro's authoritarian and neo-fascist government started to be conducted in the online format, that we realized that our pedagogical focus should rest on popular women who need support so that they can assert their political leadership in this scenario. Thus, in the last two years we are mobilizing our educative efforts for accessibility and for political and instrumental discussion about the internet and the technologies in our lives and their limits and potentialities for the political organization of the feminist movement in Brazil.



Figure 3. In person activity, (re)construction of feminism story through lived experiences in 2018.

¹ The Brazilian translation is Universidade Livre Feminista, the acronym corresponds to this name.

² The research addressed the access and use of ICTs by popular women in the North and Northeast of Brazil and sought to identify how technologies empower or not the political organization of women in these territories. The research was published in Portuguese, English and Spanish and is available on the Feminist Free University website: [www.https://feminismo.org.br/wp-content/uploads/2020/06/In-the-Circles-and-on-the-Networks_digital_20maio2021.pdf](https://feminismo.org.br/wp-content/uploads/2020/06/In-the-Circles-and-on-the-Networks_digital_20maio2021.pdf)

Through this time, the designer's work with ULF was not involved in a single research interest or a specific project, but links the knowledge and interests of design and socio-material configuration to the praxis of feminism and popular education reflecting on the political-pedagogical process from practices and demands of the feminist movement. The main reflection for design and for the notion of solidarity is that in this engagement, the "design" project is not "by design", it is a pedagogical process in itself and engenders mobilization and politicization. This kind of experience involves design but is fundamentally multidisciplinary and questions what a design outcome is, who acts on it and for whom.

5. Final considerations

Solidarity can be recognized as a dialogical principle for design as it makes possible an alliance between individuals in the collective unveiling of reality and in the confrontation of oppressive situations. The praxis based on solidarity is a self-transformation process for designers by real engagement in the dialectical contradiction, inscribed by their position in the project and within the systems of oppression. By defending the notion of solidarity, we seek a reconfiguration of power relations within design spaces.

The critical approach to reality, which in Freire (1967; 2005) is part of the conscientization process, can be a key understanding for us to think about the design process as a possibility of alliance with the oppressed. In the critical unveiling of reality, in solidarity with the oppressed, the designer's action consists in collaborating for the transformation of the oppressive situation, and not in elaborating a commodity for a problem-solution purpose.

Freire (2015) denounces the neoliberal incorporation of emancipatory struggle principles. As an example, he comments on the category autonomy, which in the neoliberal perspective started to stimulate individualism and competitiveness. We can do the same exercise and think about the incorporation of empathy into design processes in a neoliberal context and what this means for the objectification of subjects and political erasure within the so-called participatory processes. Freire presents the notion of solidarity as a counterpoint to neoliberal co-optation logics and affirms that solidarity is a historical commitment for the emancipation of the oppressed and the oppressors.

In analysing the two experiences shared above, in contrast to the notion of empathy, we borrow Freire's suggestion and argue for solidarity as an ethical principle for dialogical and antisystemic practice in design. We believe that solidarity engagement in the unveiling of implicit oppressions in a design situation can be a starting point for processes of critical conscientization about structural issues that define the need to generate a "design" project. We also understand that participatory design approaches that are focused on commodity generation can serve as an instrument for alienation, both of the designer and the other participants. On the other hand, working to dismantle oppressive situations in an solidarity-in-praxis alliance can be a political experience of consciousness and reality transformation while designing.

Critical consciousness plays a primary role in combating the mismatch between thought and practice – praxis (Fernandes, 2016). In the effort to equalize these dimensions, we advocate solidarity as a principle and practice that is linked to awareness, recognition of reality, and the agency of transforming this reality. Struggle alliance against different oppressions should permeate the actions of designers interested in deconstructing hegemonic systems. The relationship between designers and oppressed groups should strengthen the weaving of ties in such a way as to make irrelevant the superficial commitment of design grounded in the concept of empathy. We believe that this can be achieved by sewing alliances through design processes grounded in solidarity.

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Prefigurative Politics and Design

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It is difficult to imagine what life might be like without capitalism, patriarchy, and modernism, yet these systems did not always exist: they were built. As professional designers who want to work towards something different, what can we do? Some have turned to prefigurative politics for a path forward. Prefiguration is a political strategy of working towards social transformation by “building the new world in the shell of the old”. For example: solidarity economies prefigure an economy based in cooperation rather than competition through shared ownership of production; and transformative justice initiatives prefigure a world without police by finding new ways for people to keep each other safe. These efforts question the fundamental values and beliefs underlying the oppressive systems we rely on today by building something different. This paper grapples with questions like: How have professional designers worked with prefigurative projects in the past? What roles do designers think we could play in prefigurative projects? When designerly frameworks and methods, timelines, partnerships and outcomes carry the baggage of an industrial field born out of capitalism and modernism, is it possible for a design practice to contribute towards building social systems based in fundamentally different values?

prefiguration; counter-institutions; participatory design; pluriverse

1. Designing for radical social transformation

If you are a designer interested in social transformation, you may find yourself drawn to prefigurative politics – the practice of acting out the socio-political structures we want within the world we have (Raekstad & Saio Gradin, 2019). Think Occupy Wall Street prefiguring a system of direct democracy and shared resources, immigrant groups prefiguring mutual aid and support for newcomers, and abolitionist projects prefiguring a world where we reduce harm through community accountability and transformative justice rather than relying on the police. Yet working with prefigurative politics as a

designer trained for industry has pitfalls. It requires reckoning with the fact that the dominant design practices taught through university studios and critiques tether practitioners to the status quo. What value do we think professional design practices bring to prefigurative projects? How can designers work towards fundamentally different social systems, rather than replicating the status quo?

Designing for social transformation shows us that inequity has deep roots. For example, a common refrain about the U.S. criminal legal system states that the system is not broken; it is working as it was designed. Policing was never meant to address conflict or heal harm; it has always been a way to protect property, maintain the wealth of those who have it, and secure the status quo (Davis, 2003; Muhammad, 2019). This truth requires us to look beyond reform and band-aid solutions, which so often strengthen and obscure the foundational violence and racism of the systems around us. Instead, we need to question those core values and make room for something different. In this paper, I'll share my own journey navigating different ways to direct my design practice towards this transformational societal change. I'll focus on designing within prefigurative projects, and I'll share how other designers have worked with groups prefiguring alternative social structures.

When I first began to understand and grapple with the complexity of transformational change, I was also learning about speculative design and futures studies. Speculative practices provide an exciting and creative approach for radical re-imagining. Rather than attempting to earnestly propose new political structures, speculative design opens creative space by asking 'What if?' and provoking questions about how societies could be different (Dunne & Raby, 2013). It's a way to dig into the values at the foundations of our systems and to consider alternatives. Futures studies similarly provides a way to imagine – and often enact – future scenarios so that audiences can experience and think critically about them. Stuart Candy, Jim Dator, and Jake Dunagan showed this through the project *Four Futures for Hawaii 2050*, where they enacted four different possibilities about how Hawaii could look different, depending on the actions we take today (Candy et al., 2006). Candy and Dunagan continue to explore how to bring people into experiential future scenarios to provoke reflection. In 2017, I began teaching a new course at Washington University called Radical Design, building on these speculative design and futuring approaches to imagine worlds without policing and without capitalism. I also created speculative projects with residents of heavily-policed neighborhoods to visualize what public safety could look like without policing. I was seeing the benefit of imagining and enacting alternative futures in collaborative ways and thinking about how to do it more experientially.

2. Prefigurative politics

Through my work with New Yorkers and residents of Ferguson, Missouri living in over-policed neighborhoods, I also became aware that people enact futures without policing all the time. One Ferguson advocate was fearless in her support of those who created safety in their own neighborhoods. She stood up for a Search & Rescue group that had filled the gap left by police who refused to look for missing children. It was created and maintained by volunteers, mostly local parents. She also suggested that street gangs enact their own kind of justice and protection. This felt clear to me after learning from young people in New York who felt abandoned by the police, and through learning about the Young Lords and other gangs who offered members protection when the police did not. Other prefigurations are performed by activists like #LetUsBreathe Collective in Chicago, who set up a no-cops zone to prefigure and perform a world without policing in one vacant lot (The #LetUsBreathe Collective, 2016). Groups like the Bay Area Transformative Justice Collective and Safe Outside the System practice transformative justice and community accountability, trying out ways to protect each other and hold each other responsible for harm caused, without involving the police (Mingus, 2016; Safe OUTside the System Collective, 2016).

I learned that these efforts can be seen as examples of prefigurative politics, the political strategy of acting out the socio-political structures we want within the world we have. This term was first used by political science professor Carl Boggs in the 1970s (Boggs, 1977). The practice built on anarchist ideas from the turn of the twentieth century. For example, the Industrial Workers of the World (a worker-led union founded in Chicago in 1905) wrote that they sought to "form the structure of the new society in the shell of the old" (2014). To see how this applies to the examples above, consider the Bay Area Transformative Justice Collective (BATJC). BATJC prefigures a society that is different from the dominant system in the United States, because the collective responds to the sexual abuse of children without calling the police or engaging with the U.S. criminal legal system. Instead, BATJC relies on forming close community bonds and building accountability structures to protect children from harm and prevent future violence. This means that members work within their everyday lives to intentionally form community bonds and respond to situations of abuse, hosting children and parents who have been harmed in their homes and practicing ways to support abusers in stopping or changing their behavior (Mingus, 2015).

Prefigurative politics, as illustrated in this example, is different from surface-level reform or future envisioning in general. It's different from reform because it does not attempt to change policing, or to improve relationships between police officers and community members. Instead, members of BATJC act an alternative structure for safety into being on a small scale. It's different from other kinds of future envisioning because it seeks a fundamental shift in values, rather than replicating the same values at the core of our society today. By focusing on social bonds and community accountability processes, BATJC centers protection and healing over lawfulness and maintaining order, a shift that is only possible because it exists unofficially, outside formal governance systems.

3. Why use a professional design practice for political prefiguration?

If we think of design as "changing existing situations into preferred ones" as Herbert Simon describes it (1969), then groups engaged in prefigurative politics all do design. But they have different design approaches, often learned from social movements and political strategies, or simply acting on a need for personal safety and protection. At the core of any act of prefiguration is a deep understanding that the foundational values of the status quo are not working. This means that design action by members of these groups is often motivated by a fundamental shift in social values.

In contrast, the kind of design we learn in design jobs and schools is a particular form of designing— a professional practice that is made of institutions and that has a particular history. As the Decolonising Design group has pointed out, the dominant language of design connected to this professional practice comes with a specific way of thinking and knowing that is grounded in modernity and industrialization. We can see this, for example, in how design is contrasted against the lesser status of craft. What makes one wooden chair a designed object, and another chair a crafted one? Because of this history and context, design action coming from this professional practice is often motivated by replicating the values of modernity and industrial capitalism. This motivation is baked into our methods, vocabulary, decision-making structures and in the beliefs and frameworks we repeat (Ansari et al., 2016).

In recent years, designers interested in social transformation have used design, whether speculative design and futures studies or other approaches supporting prefigurative efforts, to explore transformational systems change. But if design is a professional practice that is rooted in modernity and industrial capitalism, why do we think we should use these design approaches to create political alternatives that strive to discard those mindsets? Why not, instead, follow the lead of those who have been learning from political struggle and movement building for generations?

4. Design approaches to prefiguration and their challenges

To explore how to navigate this contradiction, I looked into how designers have worked with prefigurative efforts in the past couple of decades. In 2007, a project among European universities published a book on *Creative Communities* about “people inventing sustainable ways of living” (Meroni, 2007). It cataloged projects like ecovillages, local currencies, time banking, urban farms, and cooperative businesses. While this publication remained politically neutral, I would classify these as prefigurative projects because they involve small groups of people prefiguring alternative social systems based in fundamentally different values. Time banking, for example, prefigures a system where everyone's time costs the same, and where traditionally feminine caretaking tasks are of equal worth to traditionally masculine tasks of industry and production. Arturo Escobar compares these European life projects to the indigenous struggle for self-determination in South America— Buen Vivir, post-development, and transitions to post-extractivism (2018). He references, for example, the Zapatistas, who prefigure a Good Government model grounded in direct democracy. Programs like Carnegie Mellon's Transition Design Ph.D. and the International DESIS Network (Design for Social Innovation and Sustainability) have built on the *Creative Communities* publication, saying that design-led social transition should amplify and extend the work of grassroots groups prefiguring alternatives (Irwin et al., 2013). And Carl DiSalvo, author of *Adversarial Design*, addresses prefigurative politics directly as an approach to political design in an article for the *Journal of Design Strategies* (2016).

For the group building on the *Creative Communities* publication, designers are often cast as experts and leaders of social transformation. For example, Ezio Manzini's framework in his book *Design When Everybody Designs* differentiates between diffuse design and expert design (2015). Manzini says these *Creative Communities* are doing diffuse design, the kind that comes out of every person's inherent creativity. He argues that expert designers – that is, designers trained in dominant design languages – have unique skills to make grassroots projects “visible and tangible, possible and probable, effective and meaningful, replicable and connected, local and open”. Putting this framework in the context of prefiguring worlds without policing helps to clarify the question, Which skills do designers really bring to enacting alternative social structures? Do we really think professional design expertise is what is needed to make community accountability structures effective and meaningful, compared to the expertise of mediators and transformative justice practitioners with years of practiced skill? What education and experience are designers bringing to this task? Maybe it is expertise in visual communication, problem solving, idea generation and prototyping. Yet without focused practice in enacting transformative justice, and an understanding of the fundamental value shift it performs, these skills and mindsets may do more to replicate the status quo than to enable a new vision of justice and healing.

The DESIS Lab at Parsons used the designer-as-amplifier approach outlined by the *Creative Communities* publication and Manzini's framework in a 2010 project called Amplify (Parsons DESIS Lab, 2011). It focused on connecting and expanding on local grassroots projects around the Lower East Side and Brooklyn in New York, including community-supported agriculture, bartering groups, art collectives, etc. Ten years after the Amplify project, the DESIS Lab reflected on the approach, noticing how their design mindset led them to replicate values of modernity and industrialization. They asked, “Should people's ideas be scaled-up or ‘mass produced’ so they might be adopted by others? The idea of scalability is no stranger to designers. It is a practice that emerges in great part through the industrial design tradition and the mass production of goods. In our work, we grappled with the ways in which the mass-

production of industrial products is qualitatively different from the proliferation of collaborative services” (Parsons DESIS Lab, 2020, p. 17). This reflection grapples with how the history of dominant design shows up (as mass production) when designers take on a leadership role in social change. Mass production is a big part of design for industry, so it makes sense that this same mindset might arise when we apply a design approach to social issues.

I think it is a good idea to question this designer-as-amplifier approach. The process of scaling, networking, or making prefigurative projects ‘possible’ looks a great deal like co-optation, the process that often happens when radical initiatives are defanged of their central criticisms as a way to incorporate them into the status quo. While some may see this incorporation and expansion as a win, it is often a scenario prefigurative projects actively work to avoid, to preserve their ability to think and act outside the status quo.

Carl DiSalvo shows another way to work with prefigurative groups: not facilitating, leading, or amplifying their efforts, but simply acting as a service provider, designing things that enable their desired social interactions. DiSalvo has shown what this could look like in his own work at Georgia Tech, and, in the *Journal of Design Strategies* article, he shows it through the work of a grassroots group called Occupy Sandy. Occupy Sandy arose as an emergency response to Hurricane Sandy in New York City, led by people involved in the Wall Street occupation about a year before. Building on the politics of Occupy Wall Street, they created a mutual-aid-based emergency response, enabling neighbors to support neighbors to fill in the gaps of government-led relief. Designers within the group of volunteers created a modular signage system that enabled anyone to hang signs directing residents to a place where they could find food, water, and phone chargers. In this case, designers used skills they learned in design school – visual hierarchy, contrast, and material creativity – to support the larger effort of Occupy Sandy to prefigure a world in which people freely take care of each other (DiSalvo, 2016).

Carl DiSalvo has built on this example with his own work at Public Design Workshop, a design research studio at Georgia Tech. For example, his team of designers and researchers partnered with a local group called Concrete Jungle, which forages fruit from trees on public land to fill city food pantries. Foraging in this way prefigures a world where food is grown on publicly owned land and accessible to all, as opposed to our current system that prioritizes profit over food security. But Concrete Jungle was facing a challenge. Foraging in public parks means that trees are dispersed across a large surface area, which makes it difficult to know when fruit is ripe and ready to be picked. The team at Concrete Jungle collaborated with Public Design Workshop to experiment with multiple ideas to keep an eye on fruit ripeness from afar, from drones to sensors that populate a digital map (Public Design Workshop, 2016). Similarly to the Occupy Sandy project, professional designers here used technical expertise to support a prefigurative project led collaboratively by a group with different backgrounds and different ways of designing.

5. Conclusion

I prefer this means of using design in prefigurative politics – working in a group of people with different backgrounds and using approaches that come from professional design practice only as it’s helpful to the collective process. But even when used as a supportive service, professional design practices still carry the baggage of their industrial, modernist development. In 2020, Christine Hegel and I facilitated a workshop at the Participatory Design Conference asking what is specific to a designerly perspective on prefigurative politics. We seeded the conversation with a design exercise that provoked participants to design something for a prefigurative group. In the end, the group discussed tendencies that designers

have (shown through the workshop exercise and results) that are different from how an organizer or activist without a design education might work. For example:

1. Designers prioritize the production of tangible artifacts in defined project time frames, while other activists are more likely to focus on building skills and relationships over long periods of time.
2. Designers want to generate innovative ideas and solutions, while embedded activists care more about implementing the ideas that are right for the prefigurative effort, no matter who generated them.
3. Designers tend to see themselves as 'external' to communities. We consider our skills to be transferable to any context, which we learned through the idea of developing a process that can be deployed for clients. Instead, activists tend to be embedded in a community that they identify with (Gerber & Hegel, 2020).

By reading the approaches of other designers, I have clarified my own perspective on designing with prefigurative projects. It starts with building relationships with prefigurative groups not as an external design partner but as a member— joining groups that I personally identify with. It's a reminder to learn design approaches from all people involved in the work, even (and especially) when it conflicts with the design approaches I've come to know. It's participating and following as much as leading and facilitating. It's using the design methods and skills I know when appropriate, but also questioning their impact on the broader ideological goals of the project and applying them carefully. It is helpful to be aware, not only of the skills we have built through professional design practice, but also of the baggage those practices bring, especially in a context where we strive to enact ways of thinking and doing that conflict with the status quo.

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About the Author

Alix Gerber is an independent design researcher in New York City. For the past five years, she has investigated designing for futures without policing and capitalism, working with groups of young people in Harlem, residents in Ferguson, Missouri, and college students at Washington University in St. Louis. As a designer interested in prefigurative projects, she has been reading design perspectives to explore her own hesitancy about using a professional design practice in prefigurative contexts. Alix is a white, cisgender woman from Portland, Oregon, born to two industrial designers. She became a design researcher through working at consulting firms after studying interior design in college. Her experience in the Transdisciplinary Design MFA program at Parsons School of Design caused her to question and explore the implications of applying design practices to social issues.

Fem Diàleg: Feminist participatory thinking space

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Fem Diàleg, which means 'we dialogue' in Catalan, is an initiative that started in 2019 and aims to develop the territory of dialogue as a design space and social practice, contributing to the dialogic learning practice present in many cultural traditions. Fem Diàleg's proposition is to articulate the question of knowledge-creation praxis by triangulating: the **feminist epistemologies** of situated knowledge, **art** as a relational practice and **dialogue** as a shared and embodied reflexivity. Since its inception in 2019 Fem Diàleg has organized nine gatherings with over 250 participants and more than 22 invited artists and guests.

In this short paper, we present the case study of Fem Diàleg, explain the approach of the intervention and share the main insights gained through the design and hosting of the gatherings. We will deep dive into the implications for design and share the layers of social infrastructure that allow us to create a space of equality amongst participants, trust, mutual respect, care and commitment.

Dialogue; feminism; social practice; participatory thinking

1. Introduction

Staying with the trouble requires learning to be present, not as a vanishing pivot between awful pasts and apocalyptic futures, but as cathonic beings entangled in many unfinished configurations of places, times, matters, and meanings (Haraway, 2016)

This is poetry as illumination, for it is through poetry that we give name to those ideas which are – until the poem – nameless and formless, about to be birthed, but already felt. That distillation of experience from which true poetry springs births through as dream births concepts, as feelings births idea, as knowledge births (precedes) understanding. (Audre Lorde, Sister Outsider, 36)

Our biological systems are wired to identify and consolidate patterns, and this is how we are capable of learning and making sense of all the inputs that our senses perceive every second of our existence (Hoffman, 2015). We are conditioned to simplify, codify and pre-judge over everything we experience. Recognizing this human boundary is the first step to reframe our position of self-inquiry over the partial perspectives that govern our understanding of reality, and our experiences towards other forms of being and doing.

Transcended the great promises of progress of the twenty-first century, what is crystallizing is a landscape of monocultures that prevent us from seeing the capacity and intrinsic value of the 'other' and other ways of knowing. Monocultures frame us under single story lenses, compromising the heterogeneous ways of inhabiting and relating to the world. These fragmented narratives scale up in the digital echo chambers, rooting us in positions of fear and mistrust that prevent us from collectively reinterpreting the world (Adichie, 2009).

Our ability to dismantle the oppressive patterns that operate upon us, is closely related to the diversity of stories that we know. Stories give us the opportunity to transcend our own selves and to *become* others. To unlearn and to reinterpret. Engaging and relating to multiple worlds requires opening to caring and knowing differently; it asks us to put on hold our common sense, and to weave relationships within different forms of knowing, ways of being and types of relationships. Therefore, enabling safe and trusted spaces of dialogue where situated knowledge can flourish is critical to enhance imagination and to assemble tools for collective resistance and reconstruction. Only through dialogue can we actually move towards the construction of "a world of many worlds" (*'Un mundo donde quepan muchos mundos'*) as the Zapatista principle states.

How can we resist the dynamics of atomisation and division to articulate new forms of becoming? How can dialogue help us engage with ways of being and doing that are not the hegemonic ones? No single point of view will ever have a full understanding of the world; it is through our continuous dialogue with others that we create and recreate ourselves.

2. Approach

Fem Diàleg's proposition is to articulate the question of knowledge-creation praxis by triangulating: the **Feminist** epistemologies of situated knowledge, **Art** as a relational practice and **Dialogue** as shared embodied reflexivity. We aim to create intimate and safe spaces for first-person multi-dimensional stories to surface, while enabling the conditions for shared understanding.

- I. **Feminist and intersectional** as we integrate a materialist approach to knowledge creation, involving raising questions to unlearn and dismantle hierarchies of power that dominate the way

we know, think and act. It is “A critical, reflexive relation to our own as well as others' practices of domination and the unequal parts of privilege and oppression that make up all positions” (Haraway, 1988, 579).

- II. **Art** becomes the embodiment of other ways of knowing. It widens the frame of possibility and enacts as a creative and freeing catalyst that enables the condition to create a new shared language that transcends the individual positions of experiencing the world. Art opens the possibility to immerse us in a unique shared context, where artistic expression is encouraged and celebrated among participants.
- III. **Dialogue** is the tool that allows us to become and to generate with others. Following Paulo Freire’s approach, dialogue is conceived as an invitation to open the mind and the heart to enter into a courageous act of reviewing your beliefs and your positions, but it is also the horizontal and fraternal search to find new paths to advance together (Freire, 2007). Dialogue allows us to combine the rooting experience, the reflection about our own position in the world, with the collective shift, a collective experience about how we can generate-with others. Dialogue presupposes equality amongst participants; each one must trust the others; there must be mutual respect, care and commitment.

Fem Diàleg is an intervention in itself as it creates the conditions to subvert the dogmas of purity and enables the entanglement of new affinities that come as a result of *otherness, difference and specificity* (Haraway, 2016).

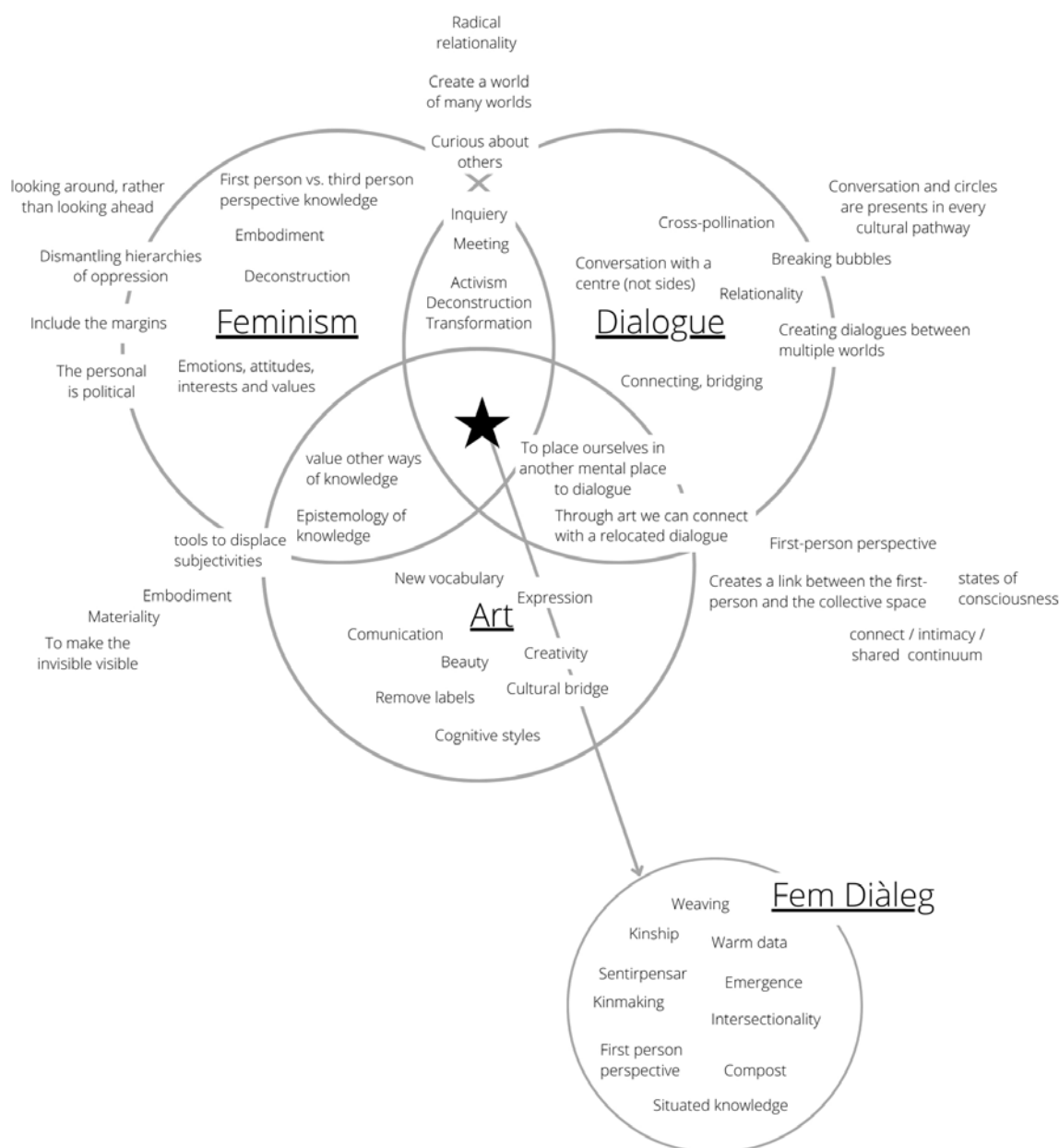


Figure 1 explains the intersections and overlaps that define the core elements of the Fem Diàleg approach.

3. From theory to practice

Fem Diàleg organized monthly encounters between September 2019 and June 2020, with a total of 9 gatherings, 3 of which took place in the digital space. During this time period, 250+ people participated in the in-person gatherings and 220+ on the digital ones, with the participation of individuals from all continents. The events engaged more than 22 artists and explored dialogical practices such as: world café, fishbowl, the money game, solo reflection, small circle - big circle, Q&As, storytelling and anonymous

sharing. Each event was framed under the lenses of different matters of concern carefully chosen by the Fem Diàleg team. Some of the topics explored have been: Feminisms, climate crisis, sexuality, money, ecofeminism, romantic love, female artist and the menstruation cycle.

3.1. Manifesto

One of the first efforts to organize the energy and to take it to a productive and creative territory was to write a manifesto. Writing the manifesto allowed the core team to build a common understanding about the purpose of this emerging space. The Fem Diàleg's manifesto reflects the spirit of the space, that aims to create collectively and has been really foundational to build a sense of trust among all the stakeholders involved, and to prepare participants to be open. Being a grass-roots organization born from the union of diverse women, the Manifesto has been a core element to invite others to join the movement and to enable a common ground where everyone is welcomed.

3.2. Social infrastructure

Fem Diàleg's **core team** has been composed of a group of women with diverse professional backgrounds, genealogies and personal experiences. The commitment of Mercedes de Jesus, Virginia Vigliar and Mercè Rua has been central to sustain the Fem Diàleg activities and to nurture the community. The core team wears multiple hats: research, journalism, experience design, event management, hosting, artist curatorship, communications, facilitation, etc. The second layer is composed of the **community guests**. They are the artists and thinkers who actively participate in the gatherings and share their experiences. It is important to note that they are not invited as experts as the 'expert' role makes no sense under the dialogical framework that guides action in the initiative. Instead, they are invited as catalysts for dialogue and collective thinking. The third layer is the **community of participants**. This community is composed of all the people who are joining the gatherings with the purpose of contributing, opening their hearts and minds to the experience.

3.3. Selection of themes

A central document that helps advance the activities and discussions is the **topic sandbox**, a document where it is noted all potential topics to explore collectively. This list of topics is informed by the conversations with the community of participants and guests, the personal experiences of the core team, and also by current affairs. The topics in the sandbox rest and gain their own shape while the core team takes time to do secondary and field research. This "resting" time is important to broaden the understanding of each topic and to approach it with all its complexity. This research and reflection time is critical to understand diversity and inclusion aspects under the specific lenses of the explored topic.



Figure 2 Opening panel of the Fem Diàleg about Feminisms. Source: Sarai Rua



Figure 3 Performance moment of Fem Diàleg about the Climate Crisis. Source: Sarai Rua



Figure 4 Live collage based on beliefs around money during de Fem Diàleg about this theme. Source: Sarai Rua



Figure 5 Small circle of discussion during the Fem Diàleg about Pleasure. Source: Sarai Rua



Figure 6 Playful moment during the Fem Diàleg about eco-feminism. Source: Sarai Rua

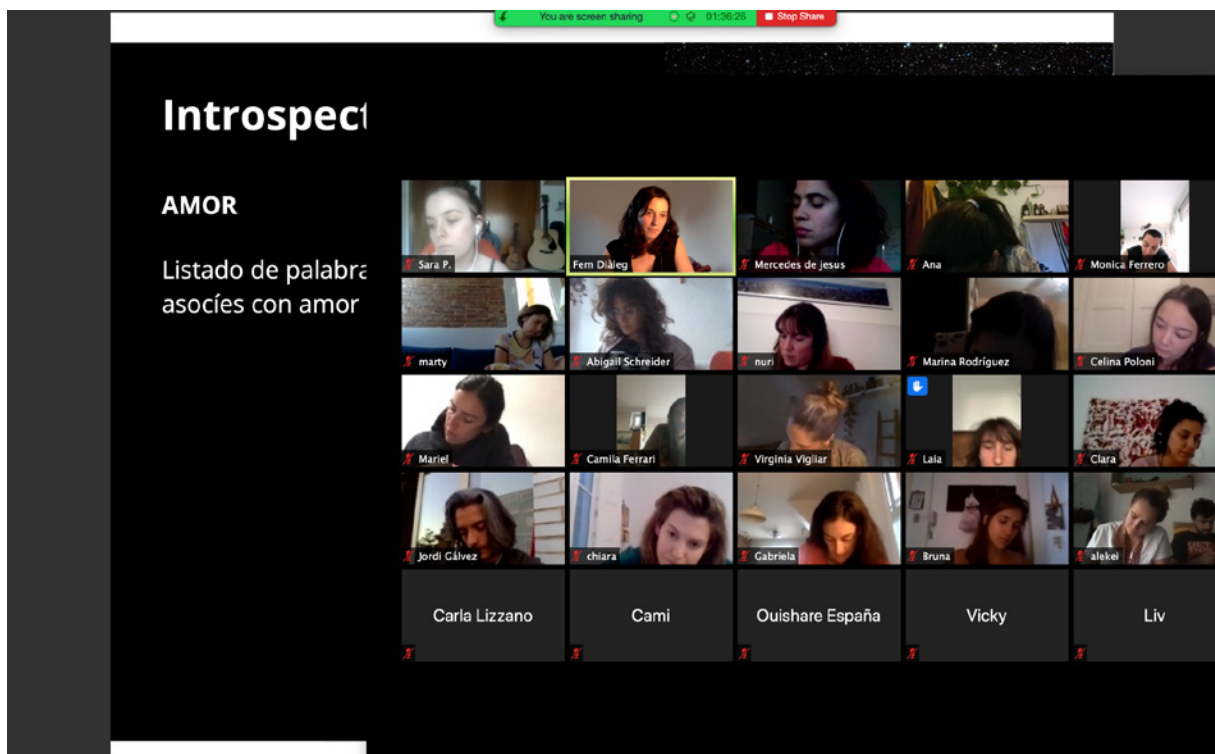


Figure 7 Screenshot of the participants of the Fem Diàleg about Romantic Love doing introspective work.

4. Conclusions

It has become more and more urgent to articulate initiatives that are trying to do things that go beyond fixing or adapting the current systems. Fem Diàleg is not an intervention that aims to deploy time-bounded projects or programs; instead, it aspires to reimagine entire systems and narratives, and focus on deep transformational change.

After over two years of activities sustained by volunteer work led by the enthusiasm from the initial group of promoters, resources are required to be able to build legitimacy and to sustain the project activities in its many dimensions (organizational, personal, emotional, physical). Although the project has experimented with some donation-based models, this does not feel to be the most appropriate structure for a space open and inclusive by definition. Therefore, the challenge remains to articulate a sustainability model that can help maintain this space where new social relationships and seeds for different possible futures are being cultivated. Funding initiatives such as Fem Diàleg, initiatives that are guided by ethos and relationships and not by metrics and data, is still really challenging in the current funding and grant-making spaces. We hope that experiences such as Pivot 2021 will contribute to fostering a change in the funding ecosystem, so that projects that seek to make space for interruptions, clarifications and divergent narratives, also find their opportunity to thrive.

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Towards a Political Design Through Feminist Ways of Movement-Making

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From the understanding that design is a complex force of political and cultural expression, I argue that in the design field we need to be with and learn from social movements, advancing collaboration between erudite and popular practices of creating and shaping worlds. In this freely reflection I present some thoughts from my experience as an educator-militant in a political organization of the Brazilian feminist movement. From this background, I seek to reimagine knowing-doings in design by means of principles systematized in feminist practices within social movements. Through these principles, I aim to reflect on possibilities for a design that is able to build utopias subverting itself as a tool for exploitation and oppression.

feminism, social movement, political principles, design theory

In this essay I would like to share some reflections I made about my practice as social educator and a militant in the feminist movement and how it can be entangled with design.

Recently many theories and approaches in design with political and social concerns have been emerging and being criticized by the community from different perspectives and experiences. From the understanding that design is a complex force of political-cultural expression, I postulate this reflection as a way to deepen the questioning on the fundamental bases of the design field so that we can think about other ways of relating to design research and practice.

I have been active with the feminist movement in Brazil since 2016. The practice that constitutes being a militant and the exercise of becoming politicized in the process of political struggle has allowed me to reflect on different issues that also permeate my action as design researcher, educator and practitioner.

I have been thinking a lot about politics and the process of politicization and how we can tackle the ongoing depoliticization in the design field of theory and practice. Based on my experience of feminist praxis, within a social and political movement, I try to think about possible articulations of politicized

practice in design and the transformative engagement I have been through within feminism in a peripheral country, fighting a fascist government and a conservative population.

The design field would gain a lot if we paid more attention to social struggles and their historical learning processes. Social movements have been reinventing their forms of organization, of articulation and decision making. They are historical experiences that can be inspiring in the way they respond to different conjunctures, to the advances in technology, to the different material contexts and to the subjectivities of their political subjects. I think the encounter between designers and social movements could be a space to think about possibilities for a design that is able to build utopias subverting itself as a tool for exploitation and oppression within the capitalist, hetero-cis-patriarchal, racist, colonialist and capacist system.

In the following pages I will share some perceptions and freely present some thoughts in an attempt to reflect on political learnings in feminism and how they can be related to design. I'm not particularly concerned with the academic depth of reflection that one would expect from an article. I write these lines to provoke reflection, in the hope that by sharing some of these questions, we can make shared progress on these issues. Here we go!

Feminism can be understood as three distinct proposals that combstantiate each other. Feminism is a way of being in the world, a kind of ethic that guides the actions and choices of a given person. But more important than being a way of constructing oneself, feminism is a social and collective movement built from the social demands and struggles of women. The third engendering, which links the two previous ones and gives support to individual and collective practices, is the feminist theory, a theoretical, critical and analytic thought in movement that renews itself every day from the confrontations experienced and systematized learnings.

In the feminist movement I organize myself in Brazil, we work based on an intersectional analysis of the Brazilian social formation as a capitalist society, based on the exploitation of labor and its division and hierarchization by sex and race; on patriarchy, as a system of social structures and practices in which men dominate, oppress and exploit women in all spheres of life; and on racism, as a system of dehumanization of black and native people (Silva, 2016).

In the experiences within the feminist movement, through the political actions, we identify characteristics that guide practices towards a social transformation with emancipatory purposes. Based on the work of Branco and Silva (2019) and Lima (2021), I present some of these issues and put them in dialogue with the field of design so we can rethink design structuring elements from a popular and feminist practice.

Feminism shows us the need to understand **political action as an everyday practice**. This means that in feminism, politics is not only done in the public sphere, in dialogue with the state or within the state. In order for us to build a reality of greater social justice and equality, we need to change social relations in different spaces and broad spheres of society. You may be familiar with the feminist maxim "the personal is political," which became recognized as the movement's motto in the 1960s. The main issue that feminists brought into the debate from this motto was the need to treat as political the issues that were silenced because they were tied to the private sphere, such as family relationships. The spaces of affection and family relationships are spaces of reproduction of oppressions, so feminists understand that these spaces also need to have their relationships collectively transformed.

If we can understand the design process as a process of shared knowledge the understanding of the relationships politics can be determinants for the project. In our field, we see a growing concern with the development of products and services to promote greater inclusion of use. More rarely do we see a concern with the configuration of design spaces. What design methodologies are mobilized? Where do

they come from? Which knowledge is valued? How are people heard? What people are considered part of the process? Who is involved in the design and production of these artifacts? Who will profit? Who will benefit? Who will be prejudiced? It is imperative to reflect on what and who we mobilize in design processes and projects while questioning our role in strengthening oppressive relations and practices.

The **questioning of universality and the defense of plurality** is another feminist principle that can assertively provoke design. One of the founding facts of feminism is the denial of universality from the understanding of the "other" (woman) of the universal subject (man). The idea of universality is based on the particularities of the white European male. This division excludes issues of private life from political debate, excludes women's participation by implicitly conceptualizing public life as the sphere of men, and creates a false independence between the public and private spheres.

Feminists argue that we cannot think in watertight social categories because these determinations are arbitrary and always leave aside singularities of a certain political subject. This leads us to the understanding that even in the negation of the universal subject (man), we cannot affirm a category "woman". There is a plurality in the experiences of being a woman and these experiences are marked by inequalities and differences.

For a long time we have heard that the feminist struggle is a struggle for equality before men. However, I see this as a fallacious debate. We need to recognize the differences in order to be able to deal with the contradiction of difference. The social structure benefits and empowers a universal subject, the contradictions that place one subject as oppressed and another as oppressor is promoted by the structures of exploitation, oppression and domination that organize our social life. We do not wish for more women to achieve equality to the universal subject in this posited social order, gaining the "right" to oppress others (other women) in this achievement. Our desire is that relations be profoundly changed. For this, it is necessary to fight against inequalities and recognize the material differences that organize our lives.

In relation to design, we can figure out which is the "universal subject"? How are we claiming equality? The Western design model is predatory and participates in the construction of weakened subjectivities in peripheral spaces. How can we value the differences that constitute "design-making" in the world, while confronting the inequalities posed by systems of oppression at the local level? How can we engage in making design theory regarding other kinds of practice, modes of production and understandings of design? The intellectual and material production of design in peripheral spaces is always seen as eccentric and fetishized in countries central to capitalism (and to design production). How can we understand these formulations as equally valid, valuable and necessary to local and global developments in design thinking and practice? Likewise, how can we not romanticize the technological backwardness imposed by dependent capitalism that plagues material production and keeps peripheral countries away from a possibility of real inclusion? It is necessary to understand that, if on the one hand our differences need to be respected, on the other hand our inequalities need to be permanently combated.

To make this process of openness to existing differences possible, it is necessary to draw inspiration from **the commitment that feminism has to self-reflection and self-criticism**. When talking about the beginning of her feminist militancy in one of her books, bell hooks (1984), a black US feminist, tells us something important: before we can change the world, we need to change ourselves. In feminism, it is imperative that we build the critical capacity to observe our relations and the inequalities that permeate these relations. A careful look at these inequalities enables the creation of alliances and articulates the possibility of overcoming oppressive relations. The self-critical capacity of the feminist movement makes this movement one of the main political subjects disputing for strength in different places of the world.

It is a movement that renews itself, revises itself, and creatively proposes other forms of organization and struggle (Lima, 2021; Gago, 2020).

The capacity for self-criticism is fundamental if we wish to build other ways of acting in facing reality. For too long designers have advocated a solutionist vision, where designers, endowed with much technical and social wisdom, propose products and services capable of dealing with the most complex problems faced by social groups. For too long we have pretended to help the oppressed while enriching capitalist companies. For too long we have been "valuing local cultures" by fetishizing practices and remunerating producers unequally. We have been for years producing normative theory, "dos" and "don'ts" that homogenize and kill everything that is richest in the diversity of material struggles and resistances. Those kinds of theories depoliticize our practice and instrumentalize knowledge from social and political areas to produce better design methods that continue perpetuating oppressions. We need to have the courage to look at our place in the production system, reflect on what relationships we are strengthening, and act creatively to change what is needed. Do designers have this compromise?

To consolidate reflective and critical processes that are, in fact, emancipatory, it is essential that this **construction be based on collective organization**. Feminism can be understood as a way of life and of being in the world, something the people take into account to make their decisions and construct their subjectivities and relationships. Even though feminism can be related to a personal ethics, there are structural transformations that can only be achieved when women organize themselves collectively, therefore, feminism is, above all, a social movement.

It is by this collective organization that women fight for a project of society where all oppressions dimensions are fought. We understand that even though a woman can escape an oppressive lived situation by herself, the only way we can make society realize the unfairness organization of social relations is collectively. In a social movement, when we combat injustice, we are not only changing our own lives, but the possibility of a better life for all women. Feminism, as a social movement, is plural and decentralized, but it has amplified its capacity of collective action, whether in mobilizations, direct actions, or in networks of solidarity and political articulation.

In design it seems we are always trying to protect our own thing. Either the intellectual property or the creative genius and the avant-garde idea. What are we hoping to achieve by that? Profit? Prestige and glory? The days of the eccentric and genius inventor are gone (was it ever this guy's era anyway?). We need to establish other ways of dealing with the contradictions of our profession. None of us will do it alone. There is also no one method to follow. But it is necessary that we observe with care some things that are already systematized and that we start transforming our actions based on the knowledge already organized and the new learnings that will arise from the collective practice. From where I see it, we can get glimpses of possibilities drawing on anti-colonial practices, popular struggles and social movements organizations. But also in design there are some clues on the way participatory design processes are conceived. The design space in participatory practices are to be understood as spaces capable of forging alliances and building political forces. Can we think about a space where there is commitment to a project of society and the construction of collective values and which is also a design space rooted in effective participation processes? This exercise is a practice of continuously modifying ourselves and our own making-world and also educating and politizing a broader society about socio-material injustices and how design and designers are capable (or not) of dealing with that.

Finally, I propose to debate **care as a strategy for world-making through design**. A feminist political understanding of care requires that it be understood as a responsibility, and it is a responsibility because we understand care as a necessary part of social relations and not as a benevolent action. When the feminist movement creates spaces of care, it is creating another possibility of political articulation

between different political subjects within the movement. In this way, care is not a feminine attribute, but as a feminist practice and ethics.

Some feminist experiments have managed to advance the operationalization by seeking to include concern for care without eliminating the centrality of conflict in the political arena (Lima, 2021; Gago, 2020). Caregiving should not be seen as a way of easing conflicts, but as a way of opening up the way to think about the inequalities that are involved in these conflicts. We need to carry out the task of revolutionizing the concept of politics, reconfiguring the boundaries between the public and private spheres, so that care is no longer understood as a private matter, but as a responsibility for all.

It is necessary to fight the understanding of the masculinized political organization dominant in political spaces (as design spaces, for example), which denies one's responsibility towards other people and does not accept attachment, solidarity and care, attributes historically relegated to the private and feminine sphere. We need design spaces where all manifestations are present and where it is possible to act in solidarity (Serpa & Batista, 2020). Valuing the concern for care does not mean eliminating conflict from the political debate in design spaces, but being able to do so affectively and in a way that strengthens individual and collective processes of subjectivation and world-making.

By presenting these five feminist issues and trying to relate them to design concerns, I am claiming a learning from the concrete political practice of feminist militancy. When I claim here an articulatory proposal from feminism I am proposing that this is a field that has been successful in overdetermining the demands of different political subjects, reinventing its borders continuously. It is a process of continuous openness, where self-criticism plays a central role. So in defending a manifesto from a feminist perspective, it is this capacity for feminist reinvention that I have in mind.

Through these principles, I want to reflect on design constitutive elements and envision new orientations that can politically qualify design. Freire (2007) says that we are conditioned by our experiences, by the reality we access, but we are not determined by it. Therefore, we cannot deny the material, cultural, political, economic, and social conditions that directly affect our construction as subject-objects in designing. But it is important that reality be glimpsed as possibilities and not determinations, that the driving force be hope and not discouragement, and that the utopian capacity for creation be directed to conscious choices and guided by a design praxis committed to transforming the world with popular forces.

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About the Author

Bibiana Oliveira Serpa (she/her/hers) is a PhD candidate in Design at ESDI/UERJ and a co-founder of the Design and Oppression Network. She is a small-town girl from the rural interior of southern Brazil, who always felt out of place in the conservative environment where she grew up. Since college, she has participated in political organizations of the student movement and currently she is a feminist militant and a social educator at the Universidade Livre Feminista, a popular education initiative focused on promoting political education among women belonging to social movements in Brazil. She has a vast experience in developing participatory projects in different locations in Latin America, which includes design for community emancipation and other approaches. Her research brings participatory design closer to politicization actions within social movements to realize new pathways for engaged design practices based on popular education, anti-racist, and anti-capitalist feminism. She is also co-editor of the *International Journal of Engineering, Social Justice and Peace*, an interdisciplinary project that seeks, through multiple languages, to disseminate scientific reflections informed by practices within popular technology movements.

Being Co-conspirators

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We live in a multidimensional pluralist world, where colonial, structuralist and industrial approaches of moulding a mind need to be questioned. Perhaps our modern educational system needs to forgo moulding a student and instead insist on developing the potential of a learner. India has long had the traditional approach of rearing a mind which is not bogged down by generalised standards. Despite this legacy, popularised design education here, is a borrowed version from ideologies of the West. The authors of this paper questioned their adopted roles as design facilitators, and conducted a social experiment to decentralise ownership of material and thought. Titled, 'Power of space', the experiment was an attempt at creating a series of unstructured dialogues hosted in spaces with apparent pluriverses. By shedding the rigid perception of their identities and merely being the catalyst for eliciting ideas, the scope for embracing vulnerability, humanising the interactions to being co-conspirators over administrators, and exploiting the ideas of de-tooling within educational experiences emerged. The paper collates the learnings and premise of the above experiment. Having met with multiple challenges, there were astute observations which were applicable at scale and could truly help decolonize the approach to the idea of educating itself.

Keywords: detooling; decolonise; co-conspirators; social experiment

1. Preface

The beauty of design 'education', as we have had the fortune of experiencing ourselves, lay in the informality, in the fluidity, in the exploration, and in the multiplicity of 'can be'.

We are Prachi and Mudita, designers trained through adaptations of the Bauhausian philosophy of education. Apart from our shared interest in museums and spaces, we often find ourselves discussing culture, theory, philosophies, politics and multiplicity of truths.

In 2018, we found ourselves reeling under our relatively new adopted roles of being design "educators".

Design having exposed us to systems embracing fluid ‘education’, and some ‘educators’ playing polymorphic roles of mentors and co-learners, we have imbibed ways of un-idealising absolutes and questioning hierarchical ways of knowing.

For many learners we encountered, our role as “educators/teachers” seemed to imply the absoluteness of knowledge and demanded a sense of reverence. These young learners, like us some years before, came from the colonial construct of our schools where the roles of the teacher and the student are defined, singular and absolute. However, we associated more with the naturalness of being simultaneous learners with others in the space, over being a teacher.

This transference of identity and obsolete dichotomy, felt alienating and made us uncomfortable. It seemed to repress the colonial construct of power and single sources of knowledge.

In the spirit of finding ways to address this conflict and of finding ways of making the “student” more visible; of sparking controversy and provocations to learn from, we extended a dialogue through a social experiment titled Power of Space. Over the course of the experiment we explored the act of becoming co-conspirators, encouraging the agency of play, of conspiring and pranking to be most ourselves.

Power of Space was a playground to explore ideas and ways of learning. It was thus never intentionally designed as a research project but an open-ended experiment. While we were hosts of the experiment, we were as much a part of it as any other participant.

The paper examines our experience from both lenses of being the observers as well as the observed. Our learnings and observations have been post-documented and analysed for future application.

1.1. Acknowledgement & Bias

We would like to start the paper by acknowledging our process. The experiment in discussion was presented as an elective to a set of design students in early 2019.

We acknowledge the impact of some design educators we have had the fortune to meet and learn from, and a world of other educationists we learnt of in the process of reflecting on this experiment.

We also acknowledge that we harbour a strong bias against the ideas of unilateral means of knowledge production and hypertooling education. In an attempt to decolonize our educational systems, we advocate de-tooling for fluidity of thought in learning experiences.

On paper we were 14 co-conspirators, a logistical constraint not a deliberate one. However, the sessions of the experiment were by nature open to anyone one who wished to join. We are deeply grateful for those sporadic co-conspirators who wove in and out of the experience of the elective, each bringing in expertise and insight pertinent to the space and context being discussed.

And finally we acknowledge that the ideas of the pluriverse have always existed within our regions-referred to as *anekantvad* or multiplicity of truth (in certain philosophies); diversity and plurality have always been accepted as part of the identity of India. As our education, production and economic systems have been predominantly inherited from colonial models of knowledge, our pluriversality has been distorted into unilateral ways of being and seeing.

2. Context

As noted by Bass and Good (2004), Craft(1984) has observed that “here are two different Latin roots of the English word “education.” They are *educare*, which means to train or to mold, and *educere*, meaning to lead out” and develop potential. While both these meanings have found their way to formulate the core of what education stands for today, there are many experiments across the globe re-evaluating the idea of education itself.

2.1. Colonised Education

India’s current education system follows the instruction-based, deductive reasoning method, as inheritance from the colonial rule of 200 years. “Although this was an exploitative system meant to create a middle level administrative staff to serve the needs of its British rulers, India has not been able to replace this system with a better alternative.”(Balaram, S., 2005, p. 12)

The standards of evaluating of learned knowledge through the idealisation of punctuality, adherence to syllabi, schedules, recorded deliverables and evidence of learning through examination along with hyper-tooling as part of ‘equipping learners for the future’, hinder the indulgence of the act of learning while also being colonial functions of power acting on society. This manufactures a need to be a learner, over the want to be one.

“Colonial education meant that its beneficiaries would begin to perceive themselves and their society as consumers of knowledge supplied by the colonizer and would cease to see themselves as people capable of producing knowledge. “ (Kumar, K., 1988, p. 454). The teacher was stripped of autonomy as well and made part of a centralised system of control and regulation.

Kumar (2016) notes “The wider system of education denied recognition to people’s knowledge and to the modes of thought and action prized in the culture.” (p. 4). The colonial notion of education being an act of ‘civilising’ people, assumed the prior conditioning and knowledge a ‘student’ came with needs to be overwritten in order for them to become suitable work resources who could be governed over. The hierarchy within the classroom led by the teacher reinstated the act of educating as one of civilising and one of control. Bartlett (2005) in her work Dialogue, Knowledge, and Teacher Student Relations says “Freire argued that educators should reject a “banking” model of education, in which the teacher “owns” knowledge and “deposits” it in the student.” (p. 345). In the context of decolonizing educational points of view she goes on to note that “Freire was well aware of the power imbalance between students’ local experiential knowledge and teachers’ academic knowledge, derived from and certified by official educational institutions.” (p. 346).

The educator, as popularised and reinstated through our many hierarchical educational systems sufficiently created a divide through othering (self/other) into varied binaries of the learned and the learner; the teacher and the taught; the educator and the educated; those within the classroom of learning and the unlearned without.

However, the region has long had the traditional educational approach of rearing a mind **educere**, which is not bogged down by the ideas of age and generalised standards. Rather the aim of non-western educational models of apprenticeship (in the arts) allowed for a student to move at their pace and created an environment of co-learning through discourse and cross-pollination on a breadth of ideas and subjects, rather than instructional, siloed teaching.

While rote learning has been a practice, it was also supplemented with other modes through critical thinking, debate, and questioning the perceived. As quoted by Dadhich (2014) “A society with this kind of varied interactions and exchanges over a very long period of time, and one that has survived very well in its cultural, social and intellectual states, could not help being anything but plural.” (p. 39).

In the process of breaking these hierarchical structures the authors realized, without deconstructing the balance of power within the layers of meaning-making one would not be able to make the tall claim of a decolonial approach in education— An extension of Mignolo’s (2011) *epistemic disobedience*¹ as a destruction of coloniality of education in this context.

2.2 Design Education in India

While most designers acknowledge the multifaceted identity and non-singularity of themselves and their work; design is rarely perceived as fluid, non-bounded or organic by those with limited understanding of the field. Design education with continuing dictums from the colonial format of education restrict this indulgence more.

“Design as an activity in India is as old as its culture, but as a modern profession it started only in the late 1950s barely a decade after India became (in 1947) an independent nation and the largest democracy in the world.” (Balaram, S., 2009, p. 54)

Despite this layered legacy, popularised design education in India is an adopted version from ideologies and contexts of the West. It is limited in its understanding of complexity and plurality, rendering linear, sanitised cause-effect understandings to far richer causalities.

The perception of design as problem-solving becomes an extension of the colonial saviour syndrome, for us designers and design educators. Becoming clinical, analysed through a linear cause-effect perspective, Design lends itself to act at multiple interjections without comprehending the scenario from the multiple identities that have led to its creations. Thus, the complexities of the reality we inhabit remain distant to our being, while also limiting our thinking to siloed boxes.

A people living within plurality are forced to accept a diametric worldview of singular ways of being, causing a cognitive and performative disbalance.

The design educator further perpetuates the notion of the ‘saviour’ but unquestioningly adopting the ‘colonial positionality’ when observing their own lived reality.

Through this paper, the presence of powerful forces indoctrinating singularity are being questioned in the hope to unearth what was once culturally obvious and now seems lost. As phrased by Chatterjee (2019) in his article Design education in India: An experiment in modernity, “The challenge today is to understand whether design education in India can continue to lead as a global demonstration of quality and sustainability. Or will it instead become a follower, mimicking what others regard as ‘world-class’?”

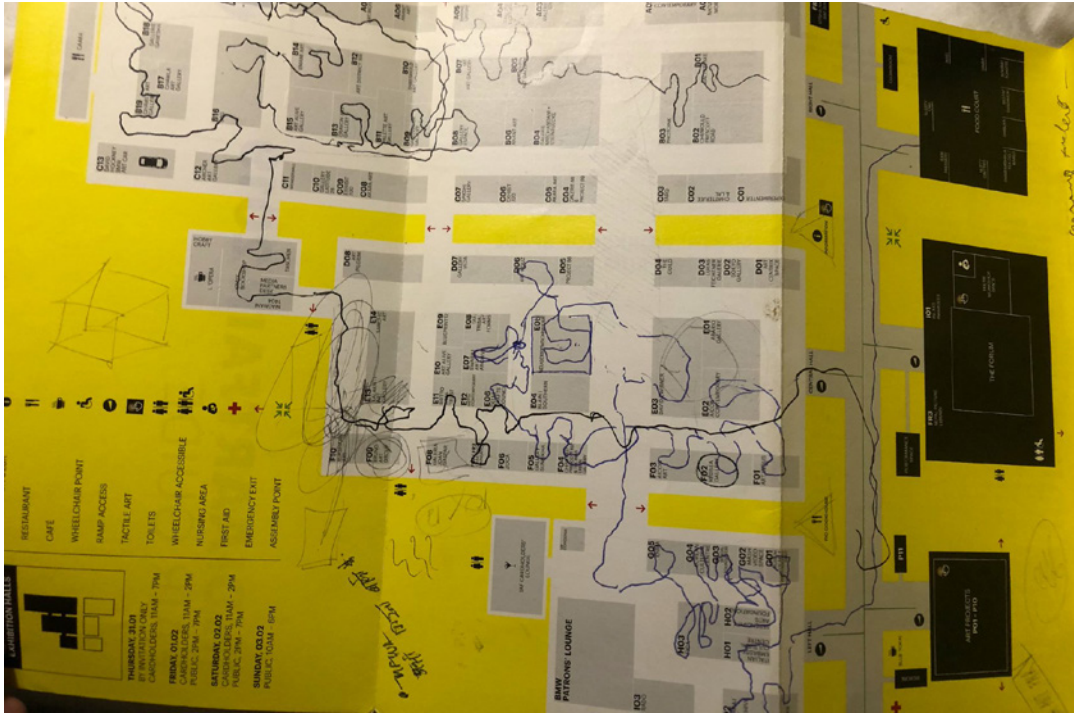


Figure 1 Session 1 of Power of Space. Map of India Art Fair, 2019. source: Prachi Joshi

3. The Power of Space

Power of Space was a series of unstructured dialogues² hosted in spaces with a multilayered identity and where this obviousness in the visual language lent the experience its polyphony.

In order to break boundaries of perceived identities within an institution, this social experiment was one of decentralising ownership of material and thought. We hoped to merely be the catalyst for eliciting ideas, neither prescribing or defining the flow nor dictating what happens next.

We aimed to explore non-hierarchical co-learning environments and to understand how the different typologies of those would consequently shape the identity of the learner.

The experiment was designed to exist outside the institute- physically and metaphorically. Without the restrictions of a set agenda and other institutional requirements, the safe spaces for each session were an attempt to encourage co-learning, encouraging equilibrium, dispelling hierarchies and to facilitate the act of learning itself to find one's own passion.

Though conceived within a design institute, the experiment was not bound by the parameters or rationale of 'popularly accepted notions of design'.



Figure 2 Session 2 of Power of Space at the Raj Path, Central New Delhi. source: authors

3.1. Setup

Many aspects of the experiment were born of the intuitive need to propagate a ‘not-a-teacher’ attitude exploring ways of learning through explorative experiences. With a deliberate attempt of responding to the immediate environment and being present in the moment, the nature of space for each session was uncharted.

In order to challenge the inherited colonial notions of absolute authority and destabilise the power which was inherently part of our institutional identities, the experiment would deliberately create the dichotomy of methodologies of a conventional colonial educational model, the west-adopted model of design education, and the western perception of design itself.

3.2. Plurality of Contexts

“Plurality is a natural innate trait of the Indian mind, else it would not have survived this long.”
(Dadhich, 2014, p. 39)

With multiplicity being a part of our identity and our daily landscape, we tried to stretch the interpretations of plurality at various levels, with the aim of seeing how these might shape the nature of co-learning.

1. Ownership of the Self | reflected in participation, experience, responsibility towards engaging and of being in charge of oneself

2. Polymorphism | to account for multiple shifting identities and therein challenging the comfort with alignment, provocation, perceived authority
3. Transparency | at every level possible of decision-making.
4. CO. | no singularities- of thought/ expression/ experience/ learning or participants.
5. Ambiguity and Fluidity | a space of discomfort within the unknown.
6. Indulging in Dichotomies | to create spectrums of learning and knowing beyond unilateral absolutes

3.2. The Places

One of the obvious pluralities of context for Power of Space were the physical locations selected to anchor each session. We drafted a list of polycentric spaces which could offer a variety of lenses of seeing— time, religion, historicity, coloniality, culture, behaviour, social interactions, politics, value and heritage to understand our own experiences and the inherent power of space.

Naresh Dadhich(2014), in his work *The Indian Plural Mind* describes India as, “very ancient and that equips it with an adaptability that can accommodate and absorb the difference and heterogeneity in its fold.” It has also, “had very strong interaction with the rest of the world through flourishing trade and business on one hand, and invasions and campaigns on the other.” (p. 40)

While the larger structure of the experiment was focused around understanding the nature of ‘spatial typologies’ around us through their language and poetics, the content itself was never limited to architecture. Beginning from investigating the systemic relationship of a place to its surroundings it would lead to larger conversations on justice, legality, social constructs to name a few. These polyphonic dialogues permeated the boundaries of knowledge and subjects, indulging any thread of thought stemming from the experience of the place.

In allowing our individual versions of experiencing and acclimatising to these places, we hoped to lead to a shared unraveling and understanding of our textured realities.

Keeping with the original setup, these locations were also curated on the basis of various degrees of contrast to each other, while including the in-betweens and those with deliberate blurred identities.

The list of places included

1. Art spaces: The India Art Fair 2019 and The Irregulars Art Fair
2. Built Central Delhi: From the Mughals to the British Imperial Capital
3. Benaras: Identity around religion, politics, myth, history to the present
4. Borderlands: Between India and Nepal, and India and Bangladesh

Our immediate environment, of Delhi³, itself offered the best playground to explore pluriverses with the co-existence of the multiplicity of truths in its identity. Delhi has never had one identity, one way of being or sole ownership. This multidimensionality of the city is evident at every turn- in its culture, religion, language, mannerisms, environment and story— filtering down to the microcosm of the institute’s location whose identity of function and placemaking is tied to space and temporal occupancy/ function. Much like the rest of the country, for whom diversity and shifting identities are part and parcel of the everyday ethos, experience and self.

“But where Delhi was unique was that, scattered all around the city, there were human ruins too. Somehow different areas of Delhi seemed to have been preserved intact in different centuries, even different millennia.” He further adds, “All the different ages of man were represented in the people of the city. Different millennia co-existed side by side. Minds set in different ages walked the same pavements, drank the same water, returned to the same dust.”
(Dalrymple, William., 2005, p. 34)

While Delhi lent a multitude of spatial typologies, we also travelled to fringe spaces, borderlands and Benaras- with a very defined religious narrative for Hindus yet beyond myth, indulges multiple ways of being. Situated on the banks of the Ganga, the city from its ghats itself, at various levels, provides us with readings into its complex identity.

The following excerpt from “Banaras: CITY OF LIGHT” crisply describes the pluriversal nature of this city:

The comparison of the sacred structure and mātmya of Banāras with that of Jerusalem, Mecca, or Peking is in many respects obvious to historians of religion; more significant, perhaps, is the historical layering of traditions, age after age, in these centers. As for its relation to other centers in the historical layering of traditions, age after age, in these centers. As for its relation to other centers in India, let it suffice to say that because of the polycentric nature of the Hindu imagination, the sacred structure and mātmya of a place as important as Banāras are widely duplicated and serve, therefore, to reveal something fundamental about the nature of such sacred places in India generally. (Eck, Diana L., 1982, p. 15)

4. A Non-Manifesto for being Co-Conspirators

De-tooling is a word with many inferences. We defined de-tooling as the act of getting rid of the conventional colonial educational tools which have come to define the act and limits of learning. Through de-tooling the ways of learning, we hoped to encourage ownership of thought, knowledge and experience.

Since Power of space was not bound to the institute, we were able to transition from the act of ‘being educated’ to the act of learning without creating expectations or compulsions. Our approach exploited this idea of de-tooling to frame the learning experiences, purging ideas of attendance, or punctuality; deliverables; the “production of inferences made/ “knowledge” ; “evaluation”, and of validation.

This created the scope for embracing vulnerability and humanising the interactions; of being co-conspirators over administrators or facilitators.

We set a clear non-manifesto for ourselves.

Leaving space for dissent and debate among all co-learners –

1. *We’re all co-participants and co-owners.*
2. *There is no need for explanations or permissions.*
3. *We come because we want to be there.*
4. *We participate at our own will and comfort.*

The only validation is from our own sensorial experiences and inquiry.

The act of de-tooling also led to more spaces of accidental learning and learning from each other’s knowledge banks. We acknowledge that for the de-tooling approach to be effective in spaces of

learning, each co-learner must respect the cumulation of the collective lived experiences. None of the participants arrive as empty vessels waiting to be filled with information, but rather bring a lifetime of insights and imbibed knowledge, which can be pooled together for richer ways of learning.

This fluidity opened spaces for those other than the 14 to also join freely, the sporadic co-conspirators. There were times we invited others to be a part of us, there were times when an invitation did not need to be extended, but the nature of space encouraged others to become part.

We had hoped to create an equitable learning space celebrating our passion for reading and understanding spaces. But we had also anticipated a lot of uneasiness to follow. The ambiguity of the learning space and the reliance on one's self would create discomfort. In order to be fair, and endorse the idea of a simultaneous learner alongside all others, the two of us, as facilitators, created situations for ourselves to be as out of depth as any other conspirer, thus the unscripted nature of each session.



Figure 3 Session 2 of Power of Space at Connaught Place, Central New Delhi. source: authors

4.1. Being co-conspirators⁴ and Other Identities

Conspiracists are often mocked for their overzealous thinking.

However what is overlooked is the shared and impassioned spirit of wanting to be an ally or accomplice.

It is the common love for an idea which binds them together.



Figure 4 Session 3 of Power of Space at the Ghats of Benaras. source: Sporadic Co-conspirator Ragini Ranjana

While not propagating conspiracy theories, the modes we explored encouraged spaces for spontaneity, dissolving the upkeep of identities and roles to just be seen as mischief makers. Conspiracy theory merely acted as a polemic to questioning accepted truths. By dismantling these intangible and invisible hierarchies through playfulness, teasing and humour, by taking liberties with each other but also being vulnerable; the possibility of a space to come together, to question, provoke and to not know, began to appear .

This equity in speculating without being held to answers and just wondering about ‘ifs and whys’ — all of the identities had shapeshifted, with merely the want of being part of the power of space as the commoning factor, making us all co-conspirators.

At each of the spaces we explored, there were various versions of conspiring. Together. The collective empowered us to depend on each other when situations were adverse, and also count on each other to be the adverse.

At the India Art Fair, this ranged from being cynical make-believe curators to being small rebels occupying private-public spaces.

While exploring Central Delhi the collective act of owning public spaces to test theories gave the sense of security. It also furthered deconstructing the power play of two past capital cities and their role in making the culture of the present day capital and India by extension.

At the international borders, in Tanakpur (bordering Nepal) and Dawki (neighbouring Bangladesh), it was in indulging conspiracy theories and speculative fiction while observing border crossings leading to conversations on human trafficking, geo-politics among others. Both these fringe places offered very different experiences tracing back to India's political relationship with the two countries Nepal and Bangladesh.

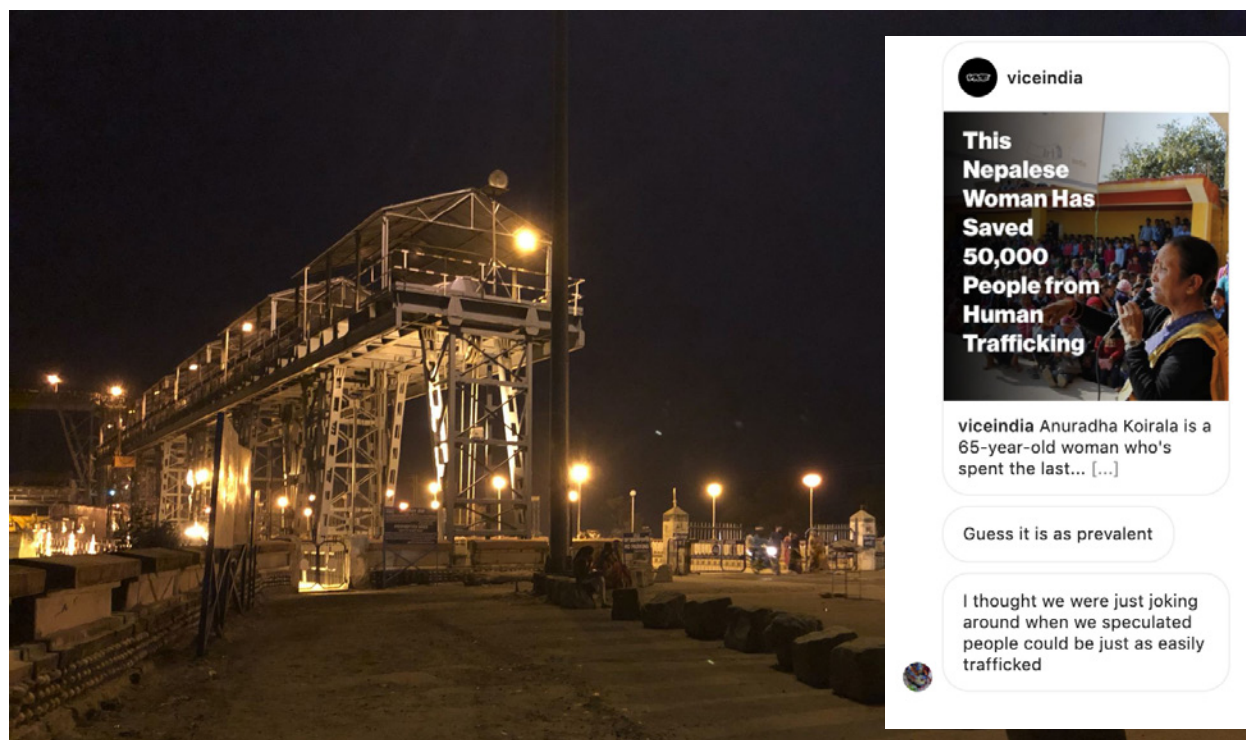


Figure 5 Session 4a of Power of Space at Tanakpur, India and Nepal border. source: authors

In Banaras it ranged from being romantic tourists to indulgent observers to literal experimenters to tempered anarchists to using the ethos of the city to create elaborate pranks.

5. Learnings

5.1. Observations from the Experiment

While our aim was to create a space for being co, we realised much of the onus of setting the tone and deliberation of equity rested on us as the facilitator. Despite a pilot session of unlearning such strong pre-conditions, we realised a repetition of some of these ideas and de-tooling was needed to sustain the core intent.

While an absolute de-tooling is far from possible, the reliance of education on tools can be drastically tempered. This is needed in the increasingly hyper-tooled world, where these tools are being confused for the evidence of learning.

The impromptu decision making and the fluidity of owning who we are, the experiment also loosened the power dynamics and structures of control within the group, In doing so, the spaces⁵ for indulging in

child-like spontaneity became apparent, allowing a shift from the educator-learner dynamic, to 14 co-conspirators, including us, the two authors of this paper.

Scoping “design”, the dialogues encouraged us to also introspect on what design means for each one and to contemplate the inherent power we as those who adopt the title of a “designer” have.

While some were co-conspirators temporarily, and were comforted by the company of “faculty” in such escapades. That unlearning would need more nurturing.

Equipping a learner could encourage finding or creating cruder, imperfect and spontaneous tools over those prescribed. Indulging in the want to know encouraged the acceptance of not knowing, creating more ownership of learning– the impassioned learner over the consumer of information.

The safety within the space rests on collectively establishing the accepted decorum for the group. However, a collective not based on mutual consensus but by acknowledging and addressing conflicts, discomforts and frictions. This could be accomplished within smaller groups of co-learners, who really get to know one another.

Further this model could be thought of as scalable through local/ micro-units like hives, rather than proportionately/ exponentially increasing group size.

5.2. Shapeshifting Identities

In the experience of being exposed to the world and ideas, challenging the sense of security and comfort; the co-learners all reacted differently. While for some the discomfort was far too great and felt disorienting much too early; for others it was part of an ongoing process. For us as well, while the content was familiar, in matters of experience we were as rooted to our conditioning, as uncomfortable as our fellow co-conspirators.

While together our identity was of co-conspirators, the non-structuring, led to many situations being created- across time, across spatiality and across agencies within the group. Within a spectrum of identities, some of the commonly observed ones, which each of us had adopted at one point or the other, were:

- Enablers (E): Acting as catalysts of action⁶ and thought.
- Initiators (I): Being the spark or the pull, and challenging inaction
- Agitators (A): The discomforted or deliberate antagonists to a collective status quo to push the boundaries of thought.
- Stabilizers (S): The grounded ones or the regulators with their sense of responsibility and temperance. This identity was common and recurring, as well as the most comforting one- the loyalty to the nurtured one of being a student or facilitator, and the sense of duty which was inherently tied to it.
- Observers (O): The sponge. Being very present and aware, but absorbing more than reacting or responding. The silence of reflection would then propagate another identity.
- The Esoteric (T): The tangential which has no direct correlation to the present, but metaphorically expands the state of being and knowing.
- The Anomalies (N) | Sporadic conspirators*: While this is not an identity in itself and the bearer fell into one of the others, it was a title we created for the moments in which others joined the

group. This was for the purpose of mapping the nature of space.

*Note: However intermittent and irregular, the authors chose to not disclude the sporadic conspirators from the mapping, as it revealed the functions of the learning spaces and were a reflection on the power of space. Our larger intent of creating non-hierarchical learning spaces and an act of de-tooling itself was reflected in these experiences. The entry/ exit for a co-learner was not pre-decided; the limits of the learning was not pre-defined and anyone who wanted to be there was not left out.

Shifting identities allowed varying degrees of comfort, fluidity and influence for each person. What was most importantly observed was the nature of space it created for meaning-making as each conspirator took ownership of their identity in the moment, but flowed into another version at another time.

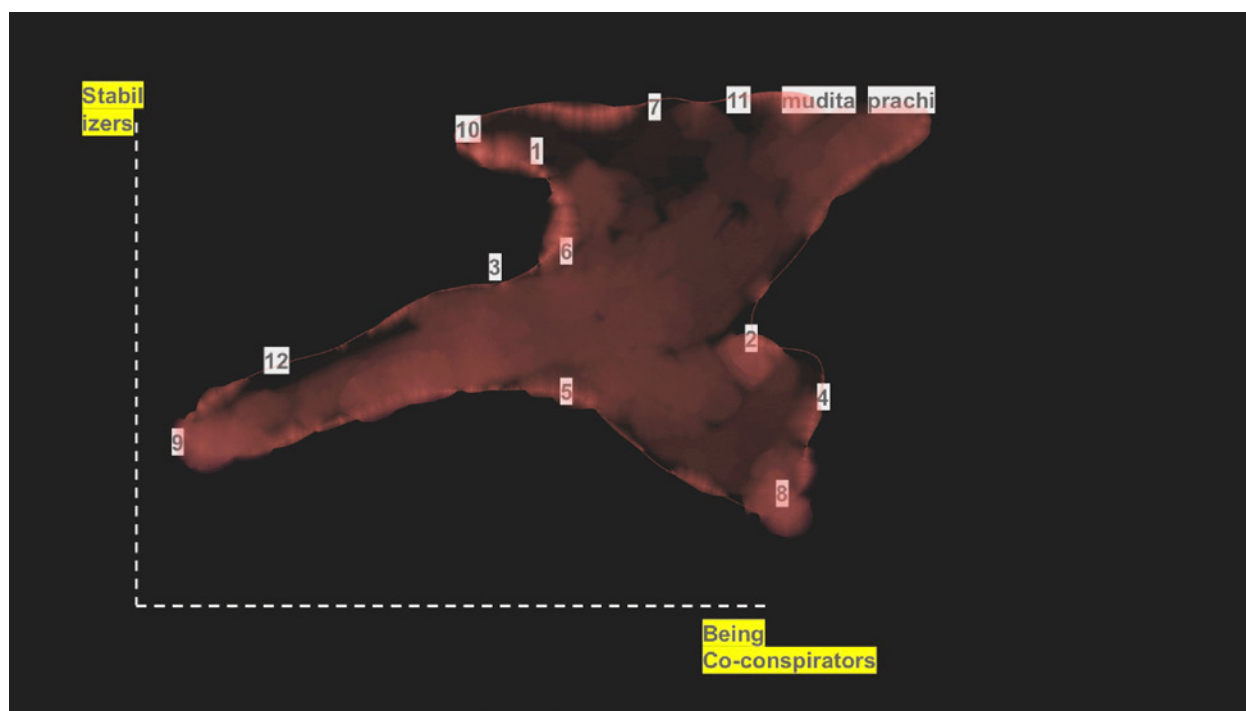


Figure 6 Dynamic elastic fabric representing the fluid nature of co-conspirator agencies. source: authors

As we mapped each of these 14 shifting positionalities against our dismantling processes of Being Co-conspirators, Detooling and Pluralism of Context, we realized the space of exchange, facilitation and discourse would be anchored differently in each.

We mapped the shifting and fluid nature of these agencies- reflecting on how the co-conspirators chose to anchor ourselves in different situations- creating a dynamic elastic fabric and discovering our individual polymorphic agencies.

6. Mandrakes and Murmurs

6.1. Polymorphic Co-Learners

Most often the common love for the context, content, approach is what attracted any existing or potential co-conspirator. There was a possibility for a range of topics and themes to be incorporated into any session.

While the content was merely a vehicle for the approach of the experiment itself, the co-conspirator as

a means to establish a purpose for each one, lent a sense of genuine passion and camaraderie between us making interactions more fluid and democratic.

Through blurring of identities, blending modalities, opening up multitudes in contexts and being, educators can acknowledge and embrace plurality that has always been inherent to the fabric of nature, thus in turn encouraging learners to own theirs.

For both the “educators” and “students” when a fluid existence of polymorphism is encouraged, no identity needs to be kept out by “designed” conventions. It is there, in the microcosms of simultaneous learning that the inherent childlike curiosity and impassioned learner, often subdued by the seriousness of absolutes of ‘must be’ or ‘should be’, find a place to appear.

Educating thus, was and continues to be a political act.
And every learner, learned, educator, facilitator— an actor within this ethos.

For learning is not confined to the times of learning, but the space, the perspectives, the safety of its openness yet confidentiality and non-judgement, through the indulgence of its passions.

6.2. Conclusion

While navigating these parallel investigations, we were able to understand that acknowledging space- whether experienced, created or lent, whether physical or social- is transformative, persuasive and non-static. It dictates behaviour, thought, & action with the ability to skew societal dynamics. It creates and disbands co-conspirators.

The journeys of each, including ours, reminded us of J.K. Rowling’s rendition of the Mandrake, and became the unofficial mascot for our experiment. A fantastical human-like plant, they cry piercingly when crudely exposed to the elements, and rest only when resettled⁷.

The sudden exposure to new ideas, challenging and displacing familiar knowledge, and navigating uncertainties mirrored the act of pulling a young screaming-kicking mandrake out from its safe space, and repotting it.

For a few, the non-committal nature of the elective was disorienting. But in the long run it has encouraged us to adopt a lighter-footed, and more critical yet open-ended approach to inquiry.

And perhaps the most promising was the identity of being co-conspirators where the process was co-owned by all of us, and some decided to take it ahead and expand the tribe, adding their own methods to the form.

The mandrakes remain as our inner identities, and the possibilities of such an experiment incite us to ask- Could such modalities of learning be applied at scale through multiple small units?
Shifting to slower and paced thinking; juxtaposing the inhabited with the experience of being?
Of the porosity of thought overflowing into one another not limited by dimensions of knowledge?

Our exploration from an educational environment to a larger design community is to speculate: What if irrespective of age and blurring the boundaries of learning, we designers were encouraged to embrace our vulnerability- of provoking, of the unknown, of play and light heartedness? What if we were emboldened to find agencies over identities, and create polymorphs?



Figure 7 There was a varying range of discomfort, disbalance and emotional reaction to the nature of content, the themes of conversation and the equity in the learning space. source: sketch by Prachi Joshi

7. Footnotes

¹ "Epistemic disobedience leads us to decolonial options as a set of projects that have in common the effects experienced by all the inhabitants of the globe that were at the receiving end of global designs to colonize the economy (appropriation of land and natural resources), authority (management by the Monarch, the State, or the Church), and police and military enforcement (coloniality of power), to colonize knowledges (languages, categories of thoughts, belief systems, etc.) and beings (subjectivity)." (Mignolo, 2011)

² "Freire defined dialogue as "the encounter between [humans], mediated by the world, in order to name the world." (Bartlette, 2005, pg 346)

³ Delhi: This region has seen the reign of more than seven kingdoms, been the new imperial capital for the British Raj, has become the adopted home for many refugees across borders- whether it was during the time of India and Pakistan's partition, the annexation of Tibet, or the independence of Bangladesh; and continues to be the locus for migrants from within the country and across the world- looking for livelihood and opportunities.

⁴ Co-conspirators as accomplices against colonised educational tools, and allies in creating spaces for equitable being. Co-conspirators as an act of play/ light-hearted questioning to push layers of thought and meaning making. Being co-conspirators and of everyone adopting this identity.

⁵ *The spaces here were our shifting identities themselves- the nature of blurred boundaries.*

⁶ *Action here is not literal physical engagement, but rather the act of being. At most points the content and the experiences were not different from each other.*

⁷ "Mandrake, or Mandragora, is a powerful restorative. It is used to return people who have been transfigured or cursed to their original state." and "The cry of the Mandrake is fatal to anyone who hears it." -a discussion during Herbology between Pomona Sprout and Hermione Granger; as written by Rowling (1998)

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About the Authors:

Mudita Pasari As a designer, I largely work with educational systems and designed visual interventions through decentralized museological experiences. Working with various educational organisations, I am often involved in developing pedagogical models and effective mediums of awareness, action and learning. My ongoing research is around breaking inherited dichotomies, and pushing the boundaries of what we assume is known, making space for a true multidimensional existence. I am currently the Associate Dean of Academics at an upcoming design school in India called The Design Village, where a manifestation independent pedagogical model is encouraged and practiced. I run a small design studio, Kiviuiq, which has a practice embedded in advocating bio diverse habitation, formed at the cross-section of human interaction and other ecological components in our immediate environments. My formal undergraduate training is in Exhibition + Spatial Design from the National Institute of Design, India and my Masters is in Art + Design Education from the Rhode Island School of Design, RI.

Prachi Joshi I am a designer and provocateur, whose practice and inquiry and sense of self have been shaped by deconstructing identity politics sustained through different systems of power (knowledge, space and medium) and meaning-making. Having lived in multiple geographies and cultures, I am irked by the concept of 'universality'— implying a colonial hangover, and rigid, singular narratives. Through my work and social experiences, I explore modes of interaction and critical discourse to challenge these ideas and create places of equity and polyphony. I hold a Master's in Narrative Environments from Central Saint Martins, London; and a self-styled master's in polemics from the school of speculative life.

I Hate Creativity

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We love creativity. Everybody loves creativity and everybody wants a “*Culture of Creativity*.” However, there is strong evidence that we do not even *like* creativity, especially under stressful conditions. Creativity thrives in conditions of uncertainty, vagueness of purpose and psychological discomfiture — conditions that can be unbearable when added to the current anxieties of a shrinking academic landscape, the pandemic, let alone wicked problems like the climate crisis.

We are terrified in these traumatic circumstances, so we shrink away from creativity toward the safety of what is known, understood and proven. As a result, *Proxy Creativity* emerges — one that is tidy, easily processed and consumed. “Creative” educational tools like Design Sprints, Pithy-Themed Courses, Compelling Branding Platforms and Curated Campuses emerge because they feel safer. These tools “sell” *Proxy Creativity* to potential students, current students, faculty, as well as to those outside of art and design institutions. This is a raw deal. Creativity in its most primal, unwieldy and disruptive form is a valuable tool used in interdisciplinary teams that are addressing wicked problems. *Proxy Creativity* may be more comfortable right now, but it is a poor substitute. Are we biased against creativity?

Key Words: Creativity, Cognitive Load, Wicked Problems, Bias

1. Art and Design Colleges are Implicitly Biased against their own Institutions, People and Core Principles

In “The Bias Against Creativity”: *Why People Desire but Reject Creative Ideas*, researchers Jennifer Mueller, Jack Goncalo and Shimul Melwani used the *IAT Implicit Bias Test* to measure creative bias. If you have taken any of these bias tests, you have experienced the rapid-fire binary choices that appear on the screen, and the staccato typing of either the “E” or “I” key on the keyboard, as a response.

Instructions read, “Go as fast as you can”. The combination of the speed and binary responses encourages gut reaction and places users in a less conscious state -- a liminal state where bias lives.

2. Vomit, Spiders and Poison

In Mueller, Goncalo and Melwan’s research, participants rated their positive and negative reactions to creativity using both words for practicality (practical, functional, constructive, useful), words related to creativity (novel, creative, inventive, original), words related to good (rainbow, cake, sunshine, laughter, peace, heaven) and words related to bad (vomit, spiders, poison, rotten, agony, hell). Results showed that creative ideas and objects were most often associated with “bad” words and feelings. This issue was even more pronounced in situations where participants were exposed to emotional states with high levels of uncertainty.

As a culture, we’re deeply biased against creativity.

Considering how our brains operate, this makes sense. Humans have very limited cognitive space and bandwidth, to begin with. In order to prioritize, make decisions, and stay safe, we generalize and reduce information to fundamentals. Bias is one of the ways we do this, as it enables us to make decisions, quickly and manage our bandwidth. We are a highly risk-averse species. When we become exposed to creative people, environments or institutions, our bias is activated. When there is an opportunity to reduce it, we take it.

“The world in general disapproves of creativity.” It’s usually only after an idea has gained acceptance and recognition that we applaud the idea and its creator. - Isaac Asimov



Figure 1 Spider, Wikipedia



Figure 2 Vomiting, JE Theriot

3. Fear and Scarcity = Less Bandwidth = More Bias

- Higher Education Enrolment has been dropping every year since 2011 and it is down from 20 million in 2011 to less than 17.5 million in spring of 2021. A small increase this fall, was reported by *Forbes*, but by 2025, the pool of college applicants is predicted to decrease by between 11-15 %, leaving fewer and fewer seats filled.
- In July of 2020, global surface temperatures were the highest for that month, since global records began in 1880. As of this writing, 2,391,354,467 people are living in water scarce areas (Water Scarcity Clock <https://worldwater.>)
- 4,814,980 people have died from Corona Virus. (<https://www.worldometers.info/coronavirus/>)
- A *Scarcity Mind-set* decreases bandwidth and increases attention on scarce resources. We shift to “*Going as fast as we can*” mode (as one does in the IAT Implicit Bias Test) and rely on “gut reactions.” Bias kicks in.

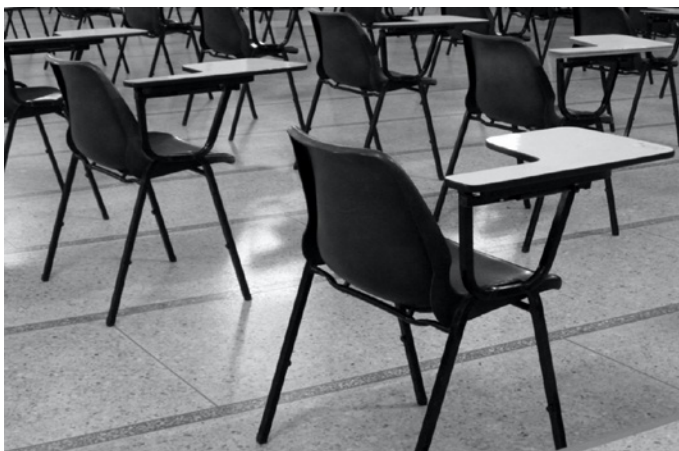


Figure 3 Empty Shelves During the 2020 pandemic, Ingrid Cold

Figure 4 Dry Cracked Earth, Ken Kistler

Figure 5 Empty, Deserted Classroom, PXhere

Figure 6 Lowering Birthrates, The Noun Project

4. Concealed Barriers. A New Protected Class Emerges

Surprisingly, educators prefer less creative students. While they explicitly state that they value creativity, and include it in their course goals and objectives, their “favorite” students are not creative. In fact, when Mueller, Goncalo and Melwan listed words related to creativity, educators said that they “disliked these kinds of students.” Concealed barriers like these discourage creative discussions, explorations, and place extra strain on students to put creative ideas forward. Publically, our educational institutions celebrate a creative climate on our outward facing websites, mission statements and recruitment materials, but concealed barriers are firmly in place in our teaching environments.

Closer scrutiny of grading practices, risk encouragement, cultural gatekeepers, and assessment suggest deep contradiction. Is there a new invisible “protected” class on campus that we are so close to but cannot see? Art and Design Institutions embrace the DEI (Diversity Equity and Inclusion) initiative. We agree that we may have age, race and gender related biases, but we can hold unconscious bias against creativity and creative individuals as well. Are we implicitly biased against our principles, our colleagues, our students and ourselves?

Creative Educators need to bear witness to this tangled and messy dynamic and become change makers, mediating between college survival, administration, and students and learning environments. In spite of the bias against creativity, or because of it, we need to use the messy, primal, unwieldy and disruptive tools of creativity to reimagine and remake art and design education into an effective and transformative tool for a world running out of time.



Figure 1 Road Closed, No Attribution

Figure 2 Ingrid Cold

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Patricia Kovic is a Professor at Otis College of Art and Design, where she focuses on a successful interdisciplinary teaching practice through the Product Design, Artist Community and Teaching and Creative Action programs. She is lead faculty for the Creative Action course NEIGHBOR GAP BRIDGE, which embraces inclusive, community based, radical pedagogy. Ms. Kovic was awarded a Teaching Artist Residency at the Skirball Cultural Center, in conjunction with the Library of Congress exhibition “Creating the United States.” She is the recipient of an Otis Curricular Innovation Grant for Blended Learning, in support of her dedication to digitally focused, future learning models.

Patricia enjoys writing about Experimental, Educational Innovation and has published and presented her ideas in a variety of venues, including AICAD (The Association of Independent Colleges of Art and Design) and IDSA (Industrial Design Society of America), THE 2019 PARIS DESIGN SUMMIT and 2020 TATE TALKS at the Tate Gallery in London. Ms. Kovic lives in Los Angeles, California and is a designer at facilitybrand.com.

An Abundance of Tools: Attention and care with theory

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This paper argues for the value of sustained exploration of theoretical work and practices from diverse perspectives on the margins of dominant systems, such as radical Black and feminist thought; Indigenous research scholars; queer theorists; modernity/coloniality scholars from the Global South; and critical design practitioners speaking from situated place. Reading, engaging, and extending this work assists with recognising common ways in which we and those around us think, work, and relate to others which accommodate dominant, oppressive systems. This includes recognising ingrained white saviorism, compulsion for efficiency, linear and task-oriented collaboration and deep-seated regard for institutional recognition. Beyond recognition, there are important lessons with immediate and everyday applications in direct relationship with practice. In this paper I will briefly address the idea of theory as an active and liberatory practice and share an example from my practice of noticing theory integrated into everyday design practices. There is a need for ongoing work to address the persistent challenges of working with and embracing theory in design. Recognising one's positionality to this work reveals and mitigates hubristic biases of how 'design' might dismantle and create alternatives. This paper describes the wealth offered by critical theory from the margins, as seen from a dominant positionality, and ways of engaging critical knowledges to support and challenge design research and practice.

Theory, positioning, social practice

1. Positioning

Positioning myself in this work is an act of acknowledging the world comes to and through me in specific ways. This essay discusses the role of theory generated by the lived experiences on the margins of

dominant systems in social practice¹. How I encounter, understand and engage this theory is predicated on my relationship to systems of domination and marginalisation. I am positioned, in many ways, at the center of dominant, European culture. Theory developed through the lived experiences of those marginalised by domination does not reflect my own lived experience, but it does speak directly to and characterise the world I inhabit. Born and raised in homogeneously white, small-town America, my worldview is deeply shaped by being white and nurtured within a culture, education and politics structured around Eurocentric education, democratic ideals, Christian values, individualism and American exceptionalism. While I am a queer woman and can recognise and in some ways contest these structural norms, I have an established ease and fluency which privileges how I move and receive recognition within dominant systems of whiteness, capitalism and coloniality/modernity. Positioning myself makes clear from where this knowledge and practice is generated. This positioning underlies the ways my worldview has been shaped, and how today I act and navigate within this research (Martin, K. and Mirra-Boopa 2003; Martin, B. 2017; Akama, Hagen, and Whaanga-Schollum, 2019). This position is one of many which present particular approaches around what is required of decolonising through a design practice, and is part of a larger, continuous project of dedicating time to understand personal and civilizational histories, trace learning lineages, understand power and reflect on personal subjectivities and political commitments. The premise of this paper is predicated on the exploration, reflection and responding to this positionality.

2. Theory as an Active Tool

In response to Pivot's call asking what are the tools needed to create alternative, liberatory futures in design, this paper explores how theory can offer an abundance of 'tools' for situated, reflexive and sustainable practice. The Oxford English Dictionary defines theory primarily as "the conceptual basis of a subject or area of study" and further details it as something that is, "contrasted with practice" (2021, n.p.). In practice, theory is a way of giving an account. It accounts for situations, actions, relationships and ideas. It "asks about and explains the nuances of an experience and the happenings of a culture" (Holman Jones, 2016, p. 229). These accounts, and the work of accounting for, "link the concrete and abstract, thinking and acting" (Holman Jones, 2016, p. 229) and help to understand and support our ways of being and acting in the world. This makes theory an integral part of what it means to make sense of how we can be and act in the world. This is not in contrast to practice, but rather, is integral to how one makes sense of and supports a continuing practice. Engaged in social practices, it offers a way into working, a tool or method, that resists instrumentalization and contests cleanly packaged, neoliberal problem-solving approaches. There is an abundance of wisdoms and practices from people and communities long engaged in radical liberation projects contained in the theory their practices have produced. Theory is a tool that helps to translate and share these wisdoms and practices.

¹ Barbara Ransby, Black feminist activist and academic, in promoting the work of the Combahee River Collective speaks to the importance of, "...always ally[ing] yourself with those on the bottom, on the margins, and at the periphery of the centers of power. And in doing so, you will land yourself at the very center of some of the most important struggles of our society and our history." (Taylor, 2017, p. 183). She highlights how radical movements must work across systems of domination. Doubling down on intersectionality and highlighting our differences threatens neoliberalism. This further emphasises the role of positionality in this paper. As someone who generally exists in the center of dominant systems, the importance of recognising this, and spending *more* time and *more* resources and *more* energy listening and learning from the margins is essential. This is not done to create the 'false unity' across differences, but to work towards the extraordinary power created by solidarity.

Within creative research practices, particularly in the history of design academia, theory can feel ‘other’ to practice. In practice-led research it can be considered the opposite of design work, making ideas more abstract, rather than “making real” or “making tangible”. There is an historical lack of engagement with theory and problematic divide between theory and practice in design. As Marjanne van Helvert recently describes,

Design theory and design history are relatively young fields of research. They have only recently started to become recognized as serious academic disciplines, and there is still a large gap between the worlds of design practitioners and design theorists.... Design does not yet fully profit from theoretical foundations and critical, historical analysis. (van Helvert, 2019, p. 27).

When it comes to design operating as a social practice, it becomes more problematic to consider design as not a practice engaged in theory and history. van Helvert continues, “Because of its urgent nature, the field of socially committed design would benefit considerably from a more widespread historical awareness and more developed critical theory” (2019, p. 27). When it comes to the work of social practice and design, theory can be used as a critical and supportive tool for exploring more robust and complex practice.

There is some history of practice-based design research in which theory is something that comes in after ‘the work’ is finished, in order to validate creative work in an academic setting. This is distinct from theory being used in *relationship with*, or developed *alongside* practice. In my own practice, spending time and making space for theory has been a force of slowing down and an agent of provocation. One of the gifts I have found in theory is that it is hard. It requires time and effort to take in someone else’s account of the world, contemplate, discuss, write and make as ways of working with the material. Concepts are not clear, and often require questioning my previously held views or frames of reference. As a provocateur, it makes simple moments more complex, opening up a depth of experience. It can offer an alternative perspective on a situation, provide a place for grounding or unsettling, make legible a process or feeling that has struggled to be seen. Theory helps to notice the invisible things happening in a room and gives ‘language’ (visual, material, written, verbal) to a moment, gesture, or look. It offers guidance for how to be with others. It provides encouragement to take the time to investigate a feeling, an affinity, an affect. It discloses larger structures and systems sitting invisibly behind an idea, and how that idea came to be shared. Critically, it reveals things I cannot see on my own.

Just like any tool, theory can be wielded in myriad ways. It is not a magic cure-all which only promotes careful, thoughtful practice and reveals hidden truths. In her essay, “Theory as Liberatory Practice” bell hooks tells us, “Theory is not inherently healing, liberatory, or revolutionary. It fulfills this function only when we ask that it do so and direct our theorizing towards this end....” (1991, p. 2-3). Theory can also be used in ways that entrench conventional power dynamics and exert control over others. Discussing the struggle for black liberation hooks describes,

...[S]ome elite academics...construct theories of “blackness” in ways that make it a critical terrain which only the chosen few can enter, using theoretical work on race to assert their authority over black experience, denying democratic access to the process of theory making, threaten collective black liberation struggle (hooks, 1991, p. 7).

She explains that institutional environments construct theory to keep people out—sometimes out of their very own lived experience. It creates barriers to stop people from coming together to do the work of accounting or engage on critical questions about our worlds. But she counters, to respond to this exclusivity with an anti-intellectual stance and reject theory with a position that “praises the concrete over the abstract” is just as damaging to the radical liberation project as the elitism, “[T]hose among us who react to this by promoting anti-intellectualism by declaring all theory as worthless [also] threaten

collectivite black liberation struggle” (hooks, 1991, p. 7). We need to both recognise the value and power of theory, of the work of accounting for and valuing, listening and discussing that accounting for, as part of a holistic, sustainable social practice.

Often theory is encountered through oral and written work, but it is also an active, engaged part of how one can live and practice. These accounts do not live statically in books and discussion, but as integral and necessary parts of collective action, and as part of a larger, liberatory framework, “...we must continually claim theory as necessary practice within a holistic framework of liberatory activism. ... I find [theory] to be most meaningful that which invites readers to engage in critical reflection and to engage in the practice of feminism” (hooks, 1991, p. 8). Embracing theory as a necessary and active part of social practice in design contests the neoliberal agenda behind design ‘for social innovation’ which turns social practice into another facet of capitalism. When directed towards ‘liberatory ends’ theory requires critical and slow work. Through this, it resists practice becoming instrumentalized. When concepts such as ‘decolonising’ or ‘anti-racism’ or ‘black liberation’ are wielded as practices without theory, they lose their radical and politicized teeth. They are diluted into mainstream trends and social media rhetoric. Removing theory from social practice devises ‘tools’ that people can pick up and ‘use’ constructs linear, progressive narratives. It encourages the idea that people can act as individuals rather than collectives, promoting ideas of how one can ‘get better’, and ignores the relationships and structures necessary for collective action and radical change (Michaeli, 2017).

3. Ontological Differences

To discuss the role theory plays in everyday practices, I want to highlight the work of some influential Indigenous scholars, Linda Tuhawli Smith, Karen Martin, and Aileen Morten Robertson. In their work, these scholars explain how Indigenous research paradigms and knowledge systems are ontologically and epistemologically different from the Western dominant frames of learning and research (Smith 2012, Martin and Mirraboopa 2003, Moreton-Robinson 2020). These differences are described as ‘other’, ‘unique’ and ‘alongside’ as opposed to thinking about them through ideas of connection, similarities or overlaps. This work, “eliminates the need to seek knowledge of the quality of cultural universality” (Martin and Mirraboopa 2003, p. 206) and encourages Indigenous scholarly work to seek knowledge particular to their own onto-epistemologies. In my work, I have been considering the role of Indigenous scholarship and knowledges in my own learning and practice experiences. Through the discussions on ontology and creative arts practice, I have come to understand that the conditioning I have received through Western systems of education and culture of how to learn, relate to and make sense of the world does not share a foundational medium or standard with different ontologies, or worldviews. The ways in which I make sense of the world relies on frameworks, languages and values developed and conditioned by my positioning in the world. There are certain ways of knowing and being in relation with the world that are not translatable².

² This creates conflict in multicultural idealism and notions of convergence promoted in conventional design practice, which promote the ability to come to consensus and operate in harmonious agreement. Respecting pluriversal worldviews, as increasingly promoted in design, requires letting go of an ideal that through innovative tools, empathy, or even story sharing we can create spaces in which we all can come to understandings with one another. Rather, it proposes recognising and encouraging a notion of incommensurable ways of knowing and being in the world.

In late 2020 I attended a small community of practice conversation led by Māori codesign practitioners from New Zealand. The intention of this conversation was to listen to and learn from perspectives of Māori peers through a professional learning community. In the sharing of their practice experiences these peers used language, dialog, stories and ways of relating distinctly different from my own practice. While listening, I noticed a conditioned pattern to understand this work by connecting it back to my own identity and practices. The ingrained habit uses the lens of my own background, experience and frameworks to help me make sense of new information. Even when this information is being shared as explicitly distinct from white, settler-colonial

ways of being and working. One of the ways I seek to make sense is to find similarities and create connections. As I watched the desire to translate the stories through and into my experience, I was aware of how this translation erases the clear and important differences between our contexts. The content of our life and work experiences may share similarities on a content level—building relationships, fostering belonging, maintaining work-life balance, challenging authority. However, when this content is experienced by different people or identities, and processed through a fundamentally different worldview it is not the same. Not only does it obscure and mutate the knowledge being shared, it undermines a practice of listening and learning in a diverse community.

Holding space to listen and refrain from sensemaking is uncomfortable. It is an easier path to translate, to understand, to connect and try to ‘know’. Upholding the possibility of incommensurable knowing and practice requires a paradigm shift in my own practice. In this paradigm shift, there is an allowance for the places that didn’t ‘make sense’ to become deeper and wider, rather than glossed over and dismissed. In this kind of listening the words hold more. They hold stories beyond my own horizons.

This small act of honouring a pluriverse prioritises the lived experience, words and truths of others without translation into a Western (or any other) worldview. It does not lead to outcomes or outputs. It does not become research data to analyse. It does not seek gain or profit from the practice of listening. It runs counter to the neoliberal academic inclination to extract and simplify knowledge, make it distributable, and thus productive. Here, theory, and the wisdom shared by theory, helps me to shape my engagement with others. It also serves to keep me accountable to my social and political commitments of my practice in deeper and more meaningful ways.

This is work to shift my own paradigms of how I see and create in the world. It is not to propose tools for others. Part of working to shift the paradigm has included not ‘owning’ the stories shared by others in presumption of being able to share or use as research, not prioritising my own clarity when facilitating or listening in a group, allowing for stories to be open and not translatable. It has been to not claim ‘knowing’ when I learn an unfamiliar cultural nuance, and working to keep respectful distances from intruding on others stories and languages to satisfy my own curiosity. This practice developed in a contextual and situated space and was informed and shaped by listening to the work and positioning of Indigenous scholars. It avoids creating a tool or maxim to put on a card that instructs people how to listen, and to whom, but instead asks people to recognise different ontological positions to your own, how they manifest in your life and practice, and how that affects your relationships when working with others.

4. Conclusion

Taking time to learn and understand the depth of knowledge and practice from the perspectives of those long engaged in work and theory from the peripheries is a critical part of acting. Positioning oneself in relation to theory is important to understand the value and relationship of theory to your practice. Theory is not something that must be relegated only to theorists or historians, or something

that comes after the design work. Rather it can be embraced and integrated as an active element of practice. From this, I hope people take away a commitment to actively seek out and attend to critical knowledges and practices from the periphery, and take time with theory which helps us take account of our worlds.

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About the Author

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Scyborg Designer: The Ghost in the Machine

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In a world on the verge of collapse, it becomes critical to rethink the education of designers, usually trained to reproduce and maintain the capitalist machine. Here, Advocating for a political praxis that avoids universality and understands itself as situated and located, I bring La Paperson's concept of scyborg to think about how design academia can reflect and become a practice of decoloniality. As someone that collects scraps, components that no longer present value for the system, the scyborg can appropriate and reorganize them, acting like a virus in the system. By creating a mess in the apparatus using its own structures, the scyborg could disassemble the machine from within, in order to decolonize the University. Learning from the scyborg's strategy, designers can become this 'ghost in the machine', responsible for the dismantling and reorganization of secular colonial structures, thus helping to break the cycle that left the planet damaged.

decoloniality; scyborg; design pedagogy; design academia

1. Introduction

Design has been contributing to Western modernity logic of oppression, productivity and extractivism. For a long time, designers refused to understand modernist design as situated, located and restricted, rather than timeless and universal. Design is intrinsically linked to capitalism and to a liberal conception of politics: we are generally involved with reproducing and maintaining the status quo (Escobar, 2018) and uncritically serving the capitalistic consume machine (Foster, 2002). Leading design practices remain based on productive and economic processes that left the "planet damaged," taking us to a horizon of collapse. I bring the author La Paperson, the avatar of professor K. Wayne Yang to think how designers can get out of the position of executor and maintainer of that harmful cycle of production and consumption. It is common to hear that capitalism co-opts all kinds of resistance and transgression, turning them into commodities that are quickly discarded and turned into garbage. Is it possible to reverse this logic? If it is difficult to see from the outside because we are totally immersed in the

capitalist perspective, how can we imagine other practices within the system? How can we create room for maneuver?

2. La Paperson's Proposal

In "A third University is possible", La Paperson suggests that colonial structures, especially the University, can and should be dismantled, scavenged, retooled, and reassembled in decolonial contraptions. She understands that, regardless of its colonial structure, "because school is an assemblage of machines and not a monolithic institution, its machinery has always been subverted toward decolonizing purposes" (La Paperson, 2017, pp. xiii). Defending that universities are spaces for world-making, she divides them into three types of worlds. So what is the difference between them, and what kind of world are they creating?

The first-world university is the mainstream, aimed at mass consumption and corporate profit. It is the machine that is interested in keeping things the way they are: degrees, fees, expertise, the publication system. It is a piece of "machinery commissioned to actualize imperialist dreams of a settled world" (La Paperson, 2017, pp. xiv).

The second world university is independent, critical; it is within the system but offers some level of criticism; it is a system more concerned with aesthetic / language issues than with the market. Second world university "desires to humanize the world, which is a more genteel way to colonize a world that is so much more than human" (La Paperson, 2017, pp. xv).

The third world university is a type of machine interested in bringing conscience, or promote a change in society's values, a revolutionary political project. It is a decolonizing university. It already exists within the first and second-world universities. La Paperson describes the University as an amalgamation of first, second, and third worlds formations. None of the modes of University is completely distinct, autonomous; each mode appropriates or contains within itself elements of the other two. There is a third world university in every first and second world universities and vice versa.

The decolonizing university needs to teach first-world curricula and second-world criticism because only through criticism the colonial code can be deciphered and hacked. However, it does not incorporate these elements. It reinvents and appropriates itself to build a coherent discourse and create a project of radical transformation.

To become an effective decolonizing action, we must try to think strategically about the apparatuses of power's permeability and the fact that the neo-colonial systems inadvertently support decolonization agendas. They take over the speeches, institutionalize them until they are absorbed and silenced by the machine.

La Paperson presents a theory of action in agency: the scyborg. We are all probably used to the term cyborg, which means a body that has integration with some technological component and that dismantles our understanding of the body as something only natural.

La Paperson's scyborg (with s and c) is the person who has picked up colonial technologies and reassembled them for decolonizing purposes by creating a mess in their apparatus. Like a mutant code, "the scyborg is the agency of creating a system-interference or a system-witchcraft" (La Paperson, 2017, pp. xiv), the agency of machine dedicated to decolonization formed by the assemblage of pieces of scrap of colonial technology. Being the ghost in the machine is a viable strategy for the existence, development, and maintenance of the third-world university.

The author provides us with the image of scraps coupled and assembled to an existing structure, which gradually interferes with the system. Scrap is something no longer useful. The scrap is Stengers' witchcraft; it is the counter-spell that will diminish capitalism's power (Pignarre & Stengers, 2005). Now it's our job to discover which scraps to collect, where to reuse and how to reactivate them.

Excavating, separating, reusing, and reassembling what the Anthropocene and capitalism understand as garbage – what is discarded by them and cannot be reappropriated as a value – may be the way for design schools to be able to imagine themselves beyond the current existing structures.

Designers can strategically take on the role of being the ghost in the machine, like the computer virus that confuses and disorganizes the system, without the need to wait for a radical breakdown of it. Designers could be defined in the future as someone who contributes to the des/re/organization of the material world, someone who destabilizes and reassembles structures. Someone who takes existing structures as their material. Inspired by La Paperson, who suggests the possibility of decolonizing the university by taking advantage of the scrap from its own colonizing machine, I suggest here that design can also be reassembled through its catastrophic and failed gears as well as those that still work.

3. Discussion

La Paperson's scyborg brings to the individual the responsibility of dismantling the oppressive university's structures. Although it is important to bring to conscience that students have agency in the change of the university apparatus, it is impossible to ignore that even progressive institutions have processes to avoid change as bureaucracy or lack of transparency. Students are not in the position of decision-makers. The agency concept of the scyborg is the main interest point of La Paperson's proposal because advocates that many individual actions can collectively disassemble secular oppressive structures from within, leading to change. However, the author also reminds us that these agency processes and the projected strategies' effectivity are temporary – "It is timely, and yet its usefulness constantly expires" (La Paperson, 2017, pp. 52) –, as the dominant system usually decodes the transgression and the forces of resistance, incorporating them into the system to silence them.

So, for the scyborg to be able to exist, I consider it is necessary to take into account two factors. The first is that students and teachers need to be aware and critical of the oppressions that surround them: those they suffer and those they promote. As the Brazilian pedagogue Paulo Freire defends, pedagogy must be a practice of freedom, where no one sets anyone free; people are set free in communion. Freire defended a pedagogy for emancipation, where students and teachers act as autonomous agents and seek to overcome oppression in a dialogical exercise of practice and reflection (Freire, 1970). bell hooks, which has Freire as a theoretical reference, defends an engaged and enthusiastic practice of critical learning from an anti-racist, feminist, and anti-colonialist perspective. It reinforces the importance of enthusiasm as well as the recognition of everyone's presence in the room, recognition of individuality, of listening to each other's voices, being affected by the presence of the other. For hooks, in her radical pedagogy, the enthusiasm is generated by collective effort, by transforming the class into a learning community. She defends a way of teaching that allows transgressions – a movement against borders and beyond them (hooks, 2017).

Second, we cannot avoid collectively and publicly fighting for structural changes to take place within academic communities, as a form of class fight and representation. La Paperson suggests that the scyborg acts like a hacker, promoting deviations and defects in the established system, which I understand to happen surreptitiously. In my opinion, however, tensions, if made invisible, will be silenced. The struggles, causes, and propositions, in my view, need to be announced, so that they can be debated and matured collectively and later negotiated and disputed.

I can cite one significant event that points to a slow and gradual movement of structural change in the Brazilian context: the institutionalization of the policy of quotas for black students and/or students coming from public education. Implemented at the state level in Brazil from 2003 and nationally in 2012 through federal law, the affirmative policies, given their extension, promoted a sensitive change in the representation of blacks and the poor in public institutions of higher education, which in Brazil are the institutions of excellence, until then mostly occupied by the descendants of middle and upper-class families. The percentage of blacks and browns who completed graduation grew from 2.2% in 2000 to 9.3% in 2017. Although it is still half the number of undergraduates in the white population, the admission of the black population to university has increased four times after the implementation of the quota policy (Brito, 2018). To build knowledge through other voices which have had their space denied historically is a fundamental step to the process of decolonizing academia because it is only possible to dismantle the system from within if you are in.

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Practicing Place-based Responsibility

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Urgent steps are needed to slow and cease ecologically, culturally and socially destructive systems and redistribute power to those with place-based knowledge and sensitivity to contextual conditions. Place-Based Responsibility enacts this practice by coalescing knowledge holders with long histories of participation in this work – those living and working in ways that express care for place. Together, we ask what are our responsibilities, reciprocities and commitments to land? How can we as individuals and as collectives take up the responsibility of contributing to the places where we are? Within Emily Carr University, a group of faculty, students, and community members have begun to enact these guiding questions as a series of public roundtable discussions, a place-based collective of graduate students, and an undergraduate course “Practicing Neighbourly Responsibility.” This paper reflects on these actions, and imagines future iterations of this work.

place-based; sustainability; pluriversal; community-based; relationality

1. Introduction

We inhabit a moment characterized by the emergence of multiple, entangled crises: destruction of natural ecosystems, growing inequality, and the rise of toxic ideologies across the globe and within our communities in Canada. Urgent steps are needed to slow and cease ecologically, culturally and socially destructive systems and redistribute power to those with place-based knowledge and sensitivity to contextual conditions.

Place-Based Responsibility enacts this practice by coalescing knowledge holders with long histories of participation in this work – those living and working in ways that express care for place: Indigenous artists and ethno-botanists; community organizers, activists and social workers; gardeners and waste

remediators; front-line workers in housing and housing advocacy; advocates for cultural labour; and artists engaged with land and material.

Together, we ask: *what are our responsibilities, reciprocities and commitments to land? How can we as individuals and as collectives take up the responsibility of contributing to the places where we are? What can each of us offer?* Within Emily Carr University, a group of faculty, students, and community members have begun to enact these guiding questions as a series of public roundtable discussions, a place-based collective of graduate students, and an undergraduate course called “Practicing Neighbourly Responsibility.” This paper reflects on these actions and imagines future iterations of this work.

2. Dissociation from Place

Dissociation from place, that is, lack of connection to where we are, in the ecological, sociological and cultural senses, is a consequence of many mounting conditions and dynamics in urban centres. This dissociation can present in a variety of ways, including apathy for the environmental impacts of our decisions and actions; disregard, hostility or lack of trust for those around us; loneliness, loss of community or sense of belongingness; and lack of accountability to a meaningful community.

Some of the factors compounding this issue include:

- Infrastructure that is more complex and more invisible: Goods, fuel, food and waste travel long distances through systems that are increasingly complex, invisible to lay-people, and not well-understood in a holistic way. Urban infrastructure largely shields us from environmental conditions such as heat, smoke, smells, and vermin. Complicated bureaucratic management hierarchies make attempted responses to these conditions feel increasingly abstract and inaccessible. We are not well-equipped to feel the effects or understand the consequences of our actions within these complex infrastructural and service flows.
- Increasing reliance on technology and large-scale technocratic approaches to ‘solve’ climate change and social unrest: This approach feeds a stacking of precarious conditions, where heroic, top-down attempts to solve for one crisis compound the effects of another. This approach undermines responsibility of the individual, and takes agency away from those with place-based knowledge, who often live with the consequences of injustice, to actively take part in determining more socially and ecologically just ways of being.
- A transition to more digitized communication: Digital twinning of face-to-face relationships – networks of people that really know and trust each other – diminishes our sense of belongingness and shared accountability to the places we inhabit. When we communicate remotely we are not inhabiting shared physical spaces, meaning we are not collectively experiencing the same environmental conditions. From a social perspective, being present, face-to-face, is essential in building trust and accountability, empathy, and the ability to give each other the benefit of the doubt (Simpson, 2017). This is compounded by COVID-19, and is particularly acute for those with limited access to technology.
- Displacement and uprooting of community due to housing scarcity and employment precarity: Human movement, driven by crises of affordability and job precarity, uproots the formation of place-based networks of people in community, even when movement occurs within a district or region. These conditions have the compounded effect of drawing attention and energy away from community building, making it difficult to see our interdependence and act collectively.

Consider a crisis such as a fire or an earthquake – the neighbours in our immediate vicinity become the critical networks to meet our basic needs in the absence of normalcy.

- Western ontology and colonial frameworks that form extractive and human-centred relationships to place: This ideology has informed both our societal infrastructure and the role design plays in society.

Designers are uniquely positioned in this area of urgent and emergent work: our role in society is historically complicit in contributing to the root causes of these problems, and we are also, through paradigm shifts in our approach, fundamental to meeting these challenges (Akama et al., 2019; Escobar, 2017). Products, cities, clothing, digital infrastructure, service flows: everything that surrounds us is designed. Designers, post-secondary teachers and learners must continue to search for ways to make major shifts in design practices and education. Place-based learning is vital to this shift.

3. Prioritizing Relationships

When we, as designers, come together for a project, it's usually in service of a design goal or deliverable. In attempting to shift away from this outcome-driven way of working, where relationships are often secondary to or a by-product of design processes defined and limited by our professional expertise and project scopes, we were interested in what could happen when building and deepening relationships was centered as the primary goal, and we could let what we made, accomplished or did together be determined collectively.

Relationships are foundational to a practice of Place-Based Responsibility – relationships to people in our communities, to our homes or public spaces, to our Host Nations, to land and to more than human beings. How are we building trust in those relationships, and how are we being responsible and accountable to those spheres? How can we “stay with the trouble” of the very specific, and contextual conditions of a place (Haraway, 2016)?

This approach is informed by and mirrors what Leanne Betasamosake Simpson says about place-based knowledge – where “meaning is derived not through content or data, or even theory in a western context, which by nature is decontextualized knowledge, but [rather] through a compassionate web of interdependent relationships that are different and valuable because of that difference” (Simpson, 2014, p. 11).

As artists and designers in learning-relationships with place-based knowledge holders, our work can be informed by Clare Land's modes of action toward decolonizing solidarity (Land, 2015):

- Critical self-reflection involves careful reconsideration of the impacts and unintended consequences of our work as designers: How are our own biases and lived experiences informing our work? What material sources and outputs are we contributing to? What are the metrics that are used to determine the ‘success’ of a project? In what ways might our work undermine or ignore the needs of place and community? What are the implicit power dynamics in our approach, and how are those dynamics colouring the participation of those most impacted by our work?
- Public political action seeks to explicitly communicate support for and follow the leadership of place-based knowledge holders through action that is legible to others.
- Personal-material work involves broadening a definition of capital to include social, ecological, experiential, intellectual, material and cultural value, and altering how these forms of value are redistributed through the work we do, including accounting for the personal benefits and forms of value we gain or give up.

Place-based responsibility can be understood as processes that centre relationships with community and place. These approaches to collaboration:

- connect to and support place-based knowledge holders, recognizing their expertise and knowledge of place from their own perspectives and ways of living;
- engage in flexible methods of being “led by” and consensual opting-in, valuing self-determination for people impacted and targeted by harmful social conditions;
- support and actively participate in horizontal hierarchies and engaged, democratic models of equitable decision-making;
- develop projects from within relational networks, working towards shared values, ethics, and goals, resisting the impulse to participate in reactionary design solutions, instead understanding and building shared intentions and futures;
- ground projects and research within notions of mutual aid, asking how to help and finding ways to support each other, through methods and actions both simple and complex.

Emphasis on work that serves relationships over relationships that serve an outcome is deeply practiced and well understood by many Indigenous teachers, including those that are here working within the communities of our Host Nations: the xwməθkwəy̓əm, Skwxwú7mesh and səliłwətaʔ.

Recognition of where we are, on unceded territory, is a reminder to attune ourselves to the real, lived, and material impacts of colonial ideologies and related oppressive systemic forces, and to understand the ways our actions can demonstrate a responsibility to place, to our host nations, and work towards just and sustainable ways of living.

4. Setting a Compass

For as far back as we can remember, whenever we travelled the ocean or the bush, our teachers would often instruct us to ‘look back’. This wayfinding technique served the dual function of maintaining forward navigational progress, as well as remembering our way back home (gáx̣in’ákv), where home is more than just a place, but a responsibility to bring forth our love, joy, and abundance (Wilson and Nelson-Moody, 2019, p. 44).

So often, community leaders and members most impacted by harmful social conditions have already voiced their concerns and hopes for their community; and non-human stakeholders continually speak up through indicators that are willfully ignored. In practicing place-based responsibility – listening and actively engaging in processes that question, disrupt and slow down harmful systems – we can be active participants in building collaborative, sustainable, mutually supportive networks. Place-Based Responsibility engaged in this process by coalescing place-based knowledge holders with long histories of participation in this work for gatherings, walks, classes and roundtables in the spring of 2021.

A practice of witnessing, as introduced by Skwxwú7mesh artist Xwalacktun, was explored by the group in advance of our gatherings. Rather than record and archive these sessions, those present were asked to actively take on the responsibility of listening to what was being shared and bring it into new settings.

4.1 Building Relationships through the Language of Place

British Columbia is the home to 60% of Indigenous languages in Canada: in our area, which is Coast Salish territory, there are 23 languages spoken (Thompson). Our first gathering, in January 2021, was hosted by Connie Watts at Emily Carr’s Aboriginal Gathering Place and included artists, Elders and language-speakers from each of our host Nations: Xwalacktun and Splash/Aaron Nelson Moody (Skwxwú7mesh); Vanessa Campbell and Jill Campbell (xʷməθkʷəy̓əm); and Carleen Thomas

(səlilwətaʔt). There is a rich and complex history of the interrelationships between these communities, and this discussion explored how we can create opportunities for Emily Carr students and faculty to deepen our recognition of and relationship to our Host Nations, the languages, dialects, and shared stories of this land and these cultures, and support spaces for our Host Nations to do this teaching.

4.2 Matriarchal Strategies

In February of 2021, we brought together a group of mentors, mothers, learners and teachers to speak about the role of kinship in their life and practice that defies/transcends institutional containers. This group included Nicole Kelly Westman, Dan Cardinal McCartney, Reyhaneh Yazdani, Vidya Crawley and Hélène Day Fraser. The discussion asked us to look beyond academic sources and methods of knowledge-sharing, acknowledging forms of intelligence that are often discounted or overlooked within patriarchal and capitalist ontologies, and led us to many sites for informal learning such as kitchens, gardens, and phone calls. We talked about how and why these feel so different from typical classroom spaces in a school: there's always work happening, and when you show up, you are both asked to help and also fed. These spaces create the conditions for actively opting in, informally moving in or out, where it feels like learning is always happening, and ourselves and our relationships are being nourished.

4.3 Permaculture as Method

Our third roundtable considered how we might apply principles of permaculture – that is, approaches that understand, promote and renew the varied, interconnected relationships between elements within an ecosystem – in our social relations, material modes of production, and cultural labour practices. Participants included Sadira Rodrigues, Annie Canto, Sharon Kallis, Louise St. Pierre, Garima Sood and Emily Neufeld. Sharing experiential knowledge of community gardening, co-operative building, and making with, we discussed strategies for making economies and relationships that are rooted in mutual flourishing and a shared abundance, as opposed to current scarcity-based models that drive competition and deplete our energy and resources. How, drawing from permaculture practices, can we contend with our given environments, and work towards systemic transformations? Re-orienting our position – as designers, as makers, as humans – to understand the earth's own agency, and that we're not separate from nature, but a part of it, emerged as both a common thread between our practices and a pathway forward.

5. Grad Collective

In parallel with the roundtables, an interdisciplinary collective of twelve graduate students in the Master of Design program coalesced to take up questions of place-based responsibility as a group. These gatherings took place outside any class, and were open-ended and slow-paced, allowing time to unpack ideas without the pressure or expectation of any outcome. Friendship and mutual support became central to the fabric of this group. Into the summer, several student-led projects emerged from within the collective: a place-based materials lab that processes culturally and ecologically appropriate materials; a set of workshops that explored pluralistic immigration stories of students arriving in Canada during the pandemic; a seasonal site-mapping project with local weavers, artists and gardeners.

6. Practicing Neighbourly Responsibility

This Social Practice and Community Engagement course was co-taught with Mickey Morgan, a recent grad whose practice explores neighbourliness in East Vancouver. This summer course broke away from

the focus on individual project realization and positioned students to turn to their neighbours and surrounding communities, attuning themselves to the active social, institutional and ecological dynamics on unceded territory. We asked students to engage in collectively determining our learning space; critique and trouble hierarchical and exploitive structures; and take up the work of neighbourly and place-based responsibility and asking students to engage in Actions of Practice that could from mutual aid practices that support survival work in conjunction with social movements demanding transformative change

Through this course, students began to:

- recognize and contribute to patterns of self and peer care
- formulate and articulate institutional and pedagogical critique as they related to applied, community-identified needs
- identify and respond to community-based needs through lenses of reconciliation and place-based responsibility
- critically approach metrics for the ‘success’ of a project or practice

Allowing ourselves to find ways to engage with these practices slowly over the summer, students explored methods of:

- peer support, creating spaces where mental health could be safely and honestly discussed, and helping friends get to know their communities
- “trying on new glasses,” looking at how the practices we may already be engaged in – camp counselling, trail building, hairdressing – could be seen as acts of reciprocity
- “coming alongside,” listening to place-based knowledge holders and finding ways to support their work in community, through answering calls for volunteers or participation; leveraging the power within existing organizations and re-orientating governance boards; and joining or building a supportive grassroots coalitions

7. Collective Actions

In closing – we’re trying to both see and build place-based responsibility as something practiced as collective work – a flexible network of people with independent practices converging to create and/or produce a shared experience or intervention. “Collectives allow people with common goals to come together, produce, act, and then disband, reform or continue as needed” (Simpson, 2017, p. 217). When we think about what kind of infrastructure would be useful or necessary to support this work, we aim to explore models that can coalesce and disperse when needed.

It is also important for us to recognize that Place-Based Responsibility goes beyond the projects we are enacting and building infrastructure for, and that these practices go by many different names, among many different cultures, contexts, and histories – to see the ways our colleagues, students, and neighbours have been practicing this work already, and find ways for us to come together and support each other. Through exploring, enacting, and connecting place-based approaches to collaboration, we are attempting to move away from scattered fragments of siloed disciplines and projects, and from black-boxed, bureaucratic hierarchies, towards a networked mesh of emergent grassroots relationships, knowledge, capacity sharing, and action.

Some of the approaches to collaboration that we will continue to work with, and also ask you to consider in your work are:

- connect to and support place-based knowledge holders, recognizing their expertise and knowledge of place;
- engage in flexible methods of being “led by” and offer opportunities for consensual opting-in;
- listening and actively engaging in processes that question, disrupt and slow down harmful systems
- support and actively participate in horizontal hierarchies and equitable decision-making;
- develop projects from within relational networks, working towards shared values, ethics, and goals;
- ground projects and research within notions of mutual aid, asking how we can help, listening, when we're being told to help, and looking for ways to support each other, through methods and actions both simple and complex.

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Visual Exploration of Identity as a Critical Tool to Disrupt Traditional Canons in Design Pedagogy

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This contribution discusses results from the implementation of undergraduate and graduate-level projects applied in traditional design studio settings to explore the visualization of identity. Since 2014, the author—a Central American woman of color teaching in public universities in Texas and Florida—has developed multiple hands-on class activities that focus on self-expression, self-awareness, memory, and *positionality*. In the undergraduate level, these activities start with the introduction of concepts and terminology from traditional design canons (i.e. principles from modernism, the Bauhaus, and other (mostly) Western European Avant Garde movements). Once students gain an understanding of these canonical principles, they embark in a self-discovery journey to determine whether these principles represent them, their context, background, and/or identity. Relevant discussions and reciprocal community-building occur during these processes in the classroom. In the graduate level, these visual explorations are based on introductory auto-ethnographic methods and studies focused on memory. At all times, these projects result in tangible design and art products—books, visual essays, collages, typographic compositions—, unveiling one-of-a-kind visual languages. The author reflects on the disruptive potential of these design activities. She refers to how the unearthing and visualization of unique knowledges inform critical perspectives of design thinking and making. By facilitating design methodologies that are curious and inclusive of the multiplicity of existing cosmovisions, we help students to learn about and embrace pluriversal and collaborative concepts of design, giving them tools to formulate appropriate reactions to exclusionary, oppressive, marginalizing, and disrespectful design.

Keywords: pluriversality; visual language; design disruption; design pedagogy

Since 2009, I have worked as an educator and researcher who practices within the realms of social design.



Creative collaboration with Maya artisans in the Yucatán Peninsula, México (2008–2009)

I explore how design serves as an instrument for promoting and improving collaboration, supporting community and context-based economies, unveiling hidden stories, and aiding *othered* peoples to elevate their voices. At the same time, I have undergone a process of recognition and criticality of traditional canons of knowledge, starting within the confines of my own academic studies—first, as a social communicator whose theoretical foundation is mostly informed by mid-1900s French male philosophers; later, as a designer who began her career learning, adopting, and promoting similarly traditional knowledges of Western, eurocentric origin, tightly attached to colonial concepts of modernity and modernism.

OTHERNESS / “THE OTHER”

A multidisciplinary and multi-level concept—a person or group defined as different from oneself or one’s own group. Also, the negatively differential basis of personal or group identity (*me or us vs them*). For Michel Foucault, this applies to all those excluded from power. (Chandler & Munday, 2016)

As a result, design research plays a fundamental role in my creative and pedagogical practice. These methods help us reimagine and conceive better and more sustainable futures. They also inform practical frameworks that help us address systemic oppression, social exclusion, and cultural discrimination that Western epistemologies, still present in traditional canons of knowledge, continue to perpetuate.



Consequently, my design research in the last twelve years has been extensively informed by dualities—*whiteness* vs *brownness*, Western vs indigenous epistemologies; universality vs pluriversality, North vs South. Reflecting on these and multiple other colonial/decolonial ambivalences have arisen numerous questions and internal dialogues on identity and knowledge-building in the context of social design practice and teaching. I am curious about our complexities as individuals within a context, how we determine belonging, and how we could “redesign” ourselves, our perspectives, and ways of living through time. I tend to ponder,

How much of our efforts aiming to expand our view of design (as a pluriversal and multimodal practice) is influenced by the peculiarities of one’s identity, and, therefore, defined by the specificities of a person’s context? Is there space for objectivity in this work?

&

How are colonialist knowledges and traditional canons (present in and aided by design and visual culture) internalized during childhood—a time that is critical to the formation of identity and the definition of one’s place in culture and/or society?

These kinds of inquiries directly inform my design teaching. For example, I am aware that the way I present myself in the community, with collaborators, peers, or in the classroom is read according to preconceived social and cultural constructs facilitated by design. At the same time, it may help determine how much I can engage others, particularly with design students, in critical, difficult, and/or sensitive issues and projects.



Leading design research fieldwork in México and Costa Rica and a workshop in an academic conference in Michigan (2009, 2014, 2018)



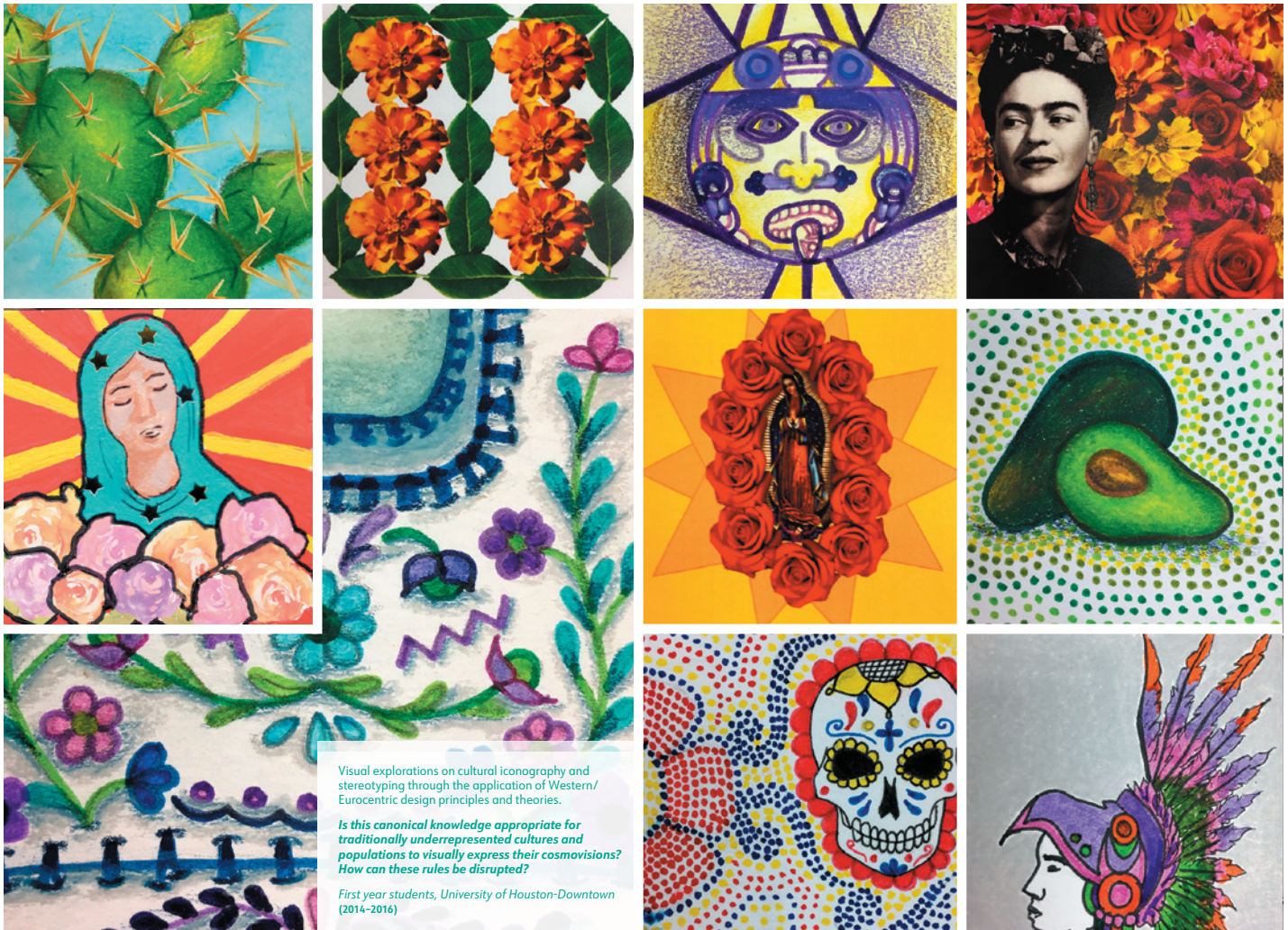
Undergraduate design students in various levels responded to stereotypes and the commodification of (their) cultures during the discovery of their visual languages. The outcomes of this process includes the production of patterns, collages, typographic compositions, and illustrations, considering cultural symbols and iconography, context-based traditions, meal ingredients, celebrations, and fauna/flora from their communities. They employed different book formats as a medium to encapsulate their expressions.

These processes help students position themselves within complex topics that have defined their identity from various perspectives—from gender roles and sexual orientation to immigration, slavery and racism, diverse sensory abilities, and economic inequity. The creative exercises aim to elevate the unique qualities of their creative voices.

TO COMMODIFY

Conversion of use values into exchange values. Often regarded as subordinating real needs to manufactured desires in its pursuit of profit (Marxist theory)

(Chandler & Munday, 2016)





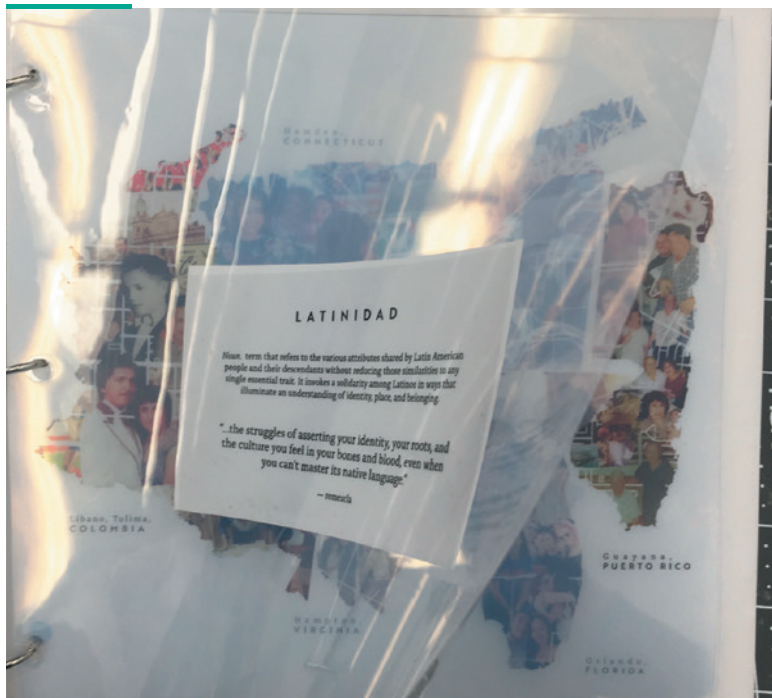
B. Butler,
University of Florida (2017)



Visual explorations on heritage, identity, and self expression using genealogical, social, historic, and cultural research.

(Junior-level project)

J. Camelo,
University of Florida (2017)



Then, in 2017, I started to adapt these activities from the undergraduate to the graduate level.

In graduate level spaces, topics related to narrative and memory helped me elevate the discussions that inform visual research and expression exercises. I have observed that graduate students are more open and willing to experiment with their work when inspiration comes from their particular historical contexts, family heritage and oral stories, ancestry, and cultural or social memories. **The designerly outcomes of this visual research typify the unique elements of their *personhood* and *positionality*.**



The work of Marjorie Shropshire, a MFA in design alumna from the University of Florida, explores symbolic ways to represent a memory (which only lives in her mind, abstractly) from her childhood. She grew up in Miami very close to the ocean in the 1960s. Her narrative and visual story express her memories of swimming, playing in her father's boat, and experiencing the colors and sensations of being underwater.

This unique visual language is informed by those particular memories, historical context, family upbringing, and multiple other experiences that are seemingly intangible.

(2018)





The success of these assignments and projects depended **on the facilitation of creative, tolerant, and empathetic spaces** where all realities, experiences, and knowledges are seen, respected, contextualized, and elevated. Initiating opportunities for students to manifest their individual knowledge in tangible ways results in the discovery of novel visual languages that communicate students' place in the world, in our country, and our communities.

M. Volk & anonymous student,
Master of Fine Arts in Graphic Design
University of Florida (2018)

The unearthing and visualization of unique knowledges based on identity, context, and memory, critically inform our perspectives of design thinking and making.

By facilitating design methodologies that are curious and inclusive of the multiplicity of existing cosmovisions, we help students to learn about and embrace pluriversal concepts of design and collaborative processes, giving them the necessary tools to formulate appropriate reactions to exclusionary, oppressive, and marginalizing design imaginaries and traditions.

In social design, these are key dynamics when preparing for working with others.

About the Author:

Gaby Hernández is a Costa Rican designer, educator, and researcher whose activities focus on equity, inclusion, anti-racism, and social justice, and their connection with design pedagogy and practice. She employs a myriad of multidisciplinary techniques and theoretical approaches, making her practice collaborative, horizontal, *pluriversal*, and dedicated to working with people (users of the products, systems, and design speculations she (co)develops) in their context. She designs experiences and guides new perspectives that help address problems that relate to cultural marginalization, repression, injustice, environmental decay, access to education, and the effects of “modernity.” She brings her own experiences of social, gender, and economic struggle to inform conversations around diversity, storytelling, and coloniality/decoloniality in the design classroom, as well as at national and international design conferences, journals, exhibitions, and multiple other design events. For over 10 years, she has worked closely with AIGA (the professional association for design in the United States) through lectures, workshops, and as a leader in the AIGA Diversity, Equity, and Inclusion Committee and the AIGA Design Educators Steering Committee.

WILD WORLDING WUNDERKAMMER WORKSHOP

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Inspired by the carrier bag theory of fiction let us look for alternate ways to do our work. We do this by worlding: by attuning to and melting into the subject(s) of our research; gathering and gaining situated knowledges, interwoven with multiple threads of imagination and desire. But then gathering and gaining is based on collecting: data, objects, subjects, situations, relations; submitted into an order of things, shifted into storages, from time to time put on display. Imagination and desire are stripped off in this process and stored separately, if at all. That's why we need a different mind-set, a different set of methods, and a different set of tools. For our findings and our creations, for our research and our inspiration we will build a wunderkammer. Not the old cabinet of curiosities based on items taken away from others, other places, stolen from life. But a new structure for our wild-at-heart pluriverse; one that is our workshop and our toolbox rather than a storage. One that is probably closer to an assembly, a parliament, a party, a network, a collaboratory for all kinds of agencies and for agencies of all kinds.

wunderkammer; knowledge building; tools; workshopology;

1. An Invitation

Remember yourself as a child curiously exploring the wonderful, wonderful world? A world of spaces and places to discover, crowded with living beings and with things, with spirits and with energies, almost always in continuous transformations, only for a few precious moments standing still, so you could try to catch up, to connect, to communicate, and sometimes also to collect: to choose something to take with you and to keep – for sure in your heart, in your mind, but sometimes also in your hands, in your bag, to be carried home. Here you put your treasures in boxes and jars, and in an order. Some were kept on hold, hidden, visible for your eyes only, others were proudly presented on your shelf: your wonderful, wonderful Wunderkammer – only that you did not know yet the word to name it. Nor what that really meant. Every item in your collection had its origins, its story – and you had become a storyteller, happily ignoring the loss each of your treasures embodied, both in itself and for the world it had been taken from.

But then, as leaves and blossoms started to crumble, as dead bodies were rotting and eaten by fungi (new blossoms, at least!), as the fresh green of the moss dried into brown and grey, as each walk past the old tree was a reminder that the strange mushroom you had broken from the bark was missing now

and no one could marvel at it anymore, because it had become yours. Not to mention the icicles – meanwhile a sad puddle of muddily water in your jar. Or the fantastic silver button you found on the floor – that was now desperately missing on your Granny’s jacket. Indeed, it was years before your first visit to a ‘real’ Wunderkammer that you already had learned a lot about the way things go whenever they are taken from their world and transferred to another one.

Nevertheless, also the bigger cabinets immediately triggered your curiosity, your fascination and your admiration; each of them a wonderful, wonderful world in its own rights, albeit crowded with dead things rather than with living ones, they seemed to be filled with spirits and energies. And all of them were standing still. So you could easily try to catch up, to connect, to communicate. And you could collect the shiny dust of their stories to take it with you. You were sure: the more dust you collected, the richer your knowledge would become. You always remained curious anyway. But due to that, you also learned more about the ways all those wonderful treasures from the wonderful, wonderful world had become part of the collections – and that, again, reminded you of your own one. From time to time, the shiny dust felt like tons of lead. Heavy and toxic, breath-taking and suffocating. No Wunderkammer, but a crypt.

This is not about nostalgia. Just as none of us ever steps in the same river twice, any attempt to time travel backwards will lead us to a different version of our past, and to one that is closer to our present and to our future(s) than to anything else. Only that we have to realize, the earlier the better: each decision comes with consequences always stretching into all dimensions: pasts, presents, and futures. None of these decisions is only about us.

Now, who is “us”? A desire for allies and alliances, to say the least. But of course before asking you to join the WILD WORLDING WUNDERKAMMER WORKSHOP I am dreaming about, I should share some more insight into my motivations to build it.

My background is in art theory and history, media studies and cultural studies; I am a professor for visual culture studies at an Institute for Art Education based at a German university; earlier I held positions as assistant professor and associate lecturer at universities and art academies in Germany and in other parts of Europe. Beyond academy I’ve been working as a writer and critic, and as a curator, developing projects with people from a whole variety of professions both in cooperation with cultural and/or communal institutions and in self-organized, community-based initiatives. If you ask me about my personal and professional passions in doing so, the development of interdisciplinary projects and programs at the intersections of theory and practice is much on top of my list – and my curiosity for exploring experimental formats and settings is probably never satisfied. Of course I am telling you this not only to introduce myself, but also to proceed towards our topic: As a student of art history raised in Western Europe, and with an academic family background, I almost literally grew up with and within the delusive stability of a canon – while at the same time critical art history and feminist art theory as well as contemporary art, or more precisely: artists working in this field were continuously widening the perspective.

However, albeit over decades contemporary art, critical theory, feminist art history and queer theory, visual culture studies, cultural studies and post-colonial theory were quite successful with problematizing the canon, pointing us to the blind spots and to toxic structures long established in the cultural field that is of course part of a whole system of social and political and economic entanglements, there is obviously still a lot to do. It is all but easy to change a running system. Not only because old habits die hard. There are also many turning points where we have to ask what to give up and what to keep with.

A prominent example in the garden of forking paths is the Wunderkammer known as museum: Introduced to us as a place for knowledge building, a collection of wonderful things that tell us stories about the world as well as about us, about nature and culture, history and technology, science and art, from the earliest times up to the present. At the same time, it's literally a hang-out for the canonized, an educational force for keeping with the canon. Moreover the majority of museums not only in the so called "Western world" are stuffed with items that found their way into the collections through mechanisms fuelled by the mentioned systems of power; some of these items are literally representing and/or even celebrating toxic structures, while others have been displaced and brought there, some have been bought, others have been stolen – and almost all of them (apart from those directly produced for the museum) have been extracted from their original contexts, from their social uses and/or from life.

For good reasons, over the past decades many critical voices have been raised; the more radical ones are demanding to empty the museums and/or to tear them down, others are coming up with claims for redefining the museum's missions and for rebuilding their structures. Dismantling, reassembling.

Would that work? Or will we have to keep with Audre Lorde, acknowledging that "[...] the master's tools will never dismantle the master's house. They may allow us temporarily to beat him at his own game, but they will never enable us to bring about genuine change."

Let us find out.

Inspired by Ursula K. Le Guin's carrier bag theory of fiction – and its mother, Elizabeth Fischer's carrier bag theory of evolution – let us look for alternate ways to conceive and to do our work. We do this by worlding: by attuning to and melting into the subject(s) of our research. With/in theory and/as practice, with/in practice and/as theory, we are gathering and gaining situated knowledges, interwoven with multiple threads of imagination and desire.

But then gathering and gaining is based on collecting: data about objects, subjects, situations, relations; submitted into an order of things, shifted into storage, from time to time put on display: museums, libraries, servers. Imagination and desire are stripped off in this process and stored separately, if at all. Old habits die hard.

That's also why simply reviving the collection by the way of storytelling is not really a solution for this problem: It is relatively easy to re-introduce imagination and desire, because they always have been there, nested in the invisibility of niches and covered with the dust of time. But then it's the order of things so deeply embedded within the very structures that is limiting our options to renovate the building.

Thus for our worlding we will not only have to go wild, "wild" as in Halberstam's "Wild Things", and acknowledge our imaginations, our desires. We also need a different mind-set, a different set of methods, and a different set of tools. We have to re-organize the structures, the spaces as well as the ways we work together – we have to decide about what we have to abandon and what we can keep with.

So let us set up a new toolbox and a new workshop for our collaborative work, for our findings and our creations, for our research and our inspiration: a WILD WORLDING WUNDERKAMMER.

A Wunderkammer – seriously?

Seriously, as curiosity, and staying curious, is still our most precious gem – or more precisely: our philosopher's stone: the corner stone and foundation block of all knowledge building. And it is foundational indeed to name it.

For in doing so we acknowledge it is not about dead matter and stable structures, but about the vibrant matter of change; a catalyst that helps us to understand that everything is about change and about changing, in process. That's why we stay curious. And that's why not only all science still starts with curiosity – but also all worlding.

However, of course our Wunderkammer shall not be “the master's house”; the old cabinet of curiosities based on items taken away from others, other places, stolen from life – a deeply colonial concept, the greedy mother of the museum. We need a new structure for our wild-at-heart Wunderkammer; one that is our workshop and our toolbox rather than a storage. One that is probably closer to an assembly, a parliament, a party, a network, a collaboratory for all kinds of agencies and for agencies of all kinds. One that invites us to come together, to work together, to learn together and from each other – in and for a more-than-human, ever changing, vibrant, humming pluriverse.

Just as worlding, wunderkammering is a verb, an action, a process. It is our responsibility to no longer lean back and rely on a system that provides stability at a price that shall no longer be paid, neither by the living nor by the dead.

Perhaps this Wunderkammer does not even need walls, cabinets and boxes, nor a door to separate inside(rs) from outside(rs), included and captives from abandoned and excluded. We will see what we always knew or happily learned: that keeping something does not demand to own it. Care is substantial, and – as we want to take it seriously – it is a verb as well.

So let us muse together about a preliminary inventory of our WILD WORLDING WUNDERKAMMER WORKSHOP – and about the tools this tool(box) for alternative futures may provide.

If it were not itself such a prominent example for a forking-path-power-structure, I'd propose to follow the alphabet... please excuse me for doing so to make a start:

A is for AGATE Stones containing whole worlds, for ARTEMISIA'S bitter healing powers, for ANTS as teachers, for ALTERNATIVES, for ASSEMBLY, and for ACCESS.

B is for BORON from outer space, for the BACTERIA being us, for BELLADONNA'S deadly gifts, for BIOS, for BECOMING, and for BOUNDARIES we have to respect.

C is for CARBON, containing all the energies of lived lives, for CHRYSANTHEMAS carrying the sun, for CHAMAELEONS that synergize past and present, for COLLABORATORY, for CO-EXISTENCE and for COOPERATION...

D is for... Dare I ask you: Do you want to join? Can you imagine to participate in our WILD WORLDING WUNDERKAMMER WORKSHOP?

To give it a try, please take a breath and close your eyes. Imagine. Choose a letter from an alphabet of your choice. What would you like to contribute?

Always starting with your letter, choose a mineral, a metal, a stone, choose some lifeforms, perhaps a protozoon, a fungus, a plant, a fish, an insect, a mammal or a bird. And then of course bring some tools. This latter category – tools – is probably the most important one for our workshop, and it is also the widest one, open for experiments – if not demanding for them. Almost everything can become a tool: items of all kind, but also actions, strategies, formats, media, and even moods. It's the tools indeed that should help us to dismantle and to reassemble those concepts and constructions, ideas and imaginations of WUNDERKAMMER(ING) we strive to overcome.

But then similar can be said of those categories that seemed so stable over centuries: species, genus, families, orders, classes, phyla, kingdoms, domains; the so called 'reigns' of minerals, plants and animals.

Hierarchical orders of knowledge mirroring, mapping and matching human power structures, fantasies and phantasms of dominance and mastery of the world that separated what cannot be separated due to its deep entanglements, interrelationships and interdependencies.

Moreover, as we are living as cyborgs among cyborgs in cyborg ecosystems, in our (techno-)natureculture, as Donna J. Haraway and many others have rightly claimed, it is all about acknowledging kinship and forming new alliances between all kinds of existence and states of being. Therefore, when it comes to creating our Wunderkammer, we have good reasons to finally abandon the difference between “naturalia” and “artificialia” as well. At the same time, the planet urgently calls for fighting extractivism – the very extractivism that is still nurturing man-made technologies and tools. So here we have another good reason to redefine our relations to minerals, metals, stones, and to lifeforms of all kind. And another good reason to redefine our tools.

For dismantling “the master’s house” and for reassembling whatever kind of structure for our commons (why not a WILD WORLDING WUNDERKAMMER WORKSHOP?) we might still need both hammers and books. But we will also have to find, build, lend and invent other tools. And this is especially true for our WILD WORLDING WUNDERKAMMER WORKSHOP. Ah, a propos:

W is for WILD WORLDING WUNDERKAMMER WORKSHOP – and for you’re always WELCOME here. And please do not wait for the **Z** is for ZERO, as our work is never done.

2. References (excerpt)*

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*** Please note:** The titles listed above in order of their appearance are obviously only those quoted or literally mentioned in my invitation to join the WILD WORLDING WUNDERKAMMER WORKHOP. As a bibliomaniac, avid reader and imaginary librarian I am also much into creating oblong bibliographies and research related bookshelves. Those related to the WILD WORLDING WUNDERKAMMER WORKHOP are currently encompassing not only books and essays on cabinets of curiosities and their history up to present times, but also on: collecting and collections, museums and critical museum studies, curiosity studies, the history of science and of knowledge, science fiction (including sf as primary literature and source), multispecies studies, post-colonial studies, design, methods and methodologies, and tools. For more information on the project and for exchange please feel free to contact me at: verena@kuni.org.

About the Author

Verena Kuni is a scholar in the field of art, cultural and media studies and professor for visual culture at Goethe University, Frankfurt Main. Her research and teaching, projects and publications focus on transfers between material and media cultures; media of imagination and technologies of transformation; DIY and critical making; biotopes, biotopias and techno/nature/cultures; toys and/as tools; creative entanglements between imagination and invention; visual epistemology; information design and/as (con)figuration(s) of knowledge; (in)visibilities; alternate realities and (trans)formations of time. Among her passions is the development of interdisciplinary projects and programs at the intersections of theory and practice; her curiosity for exploring experimental formats and settings is probably never satisfied. Find out more at www.kuniver.se.

Liberating Structures for Pluriversal World-Making

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One-way lectures, status reports, brainstorming, and open and managed discussions can all be tedious, alienating and demoralizing exercises of unbalanced power. We see opportunities to rethink in-person and online interactions across spheres such as workplaces, classrooms, conferences, and movement organizing. We share essential principles of Liberating Structures (LS), a set of 33+ open-source methods for more engaging and effective gatherings. We offer visual illustrations, practical examples, and insights from our experiences using LS for teaching and facilitation. LS, named by action researcher William Torbert and elaborated by Henri Lipmanowicz, Keith McCandless and others, are grounded in complexity thinking (vs. linear machine models), observing that innovation emerges from interconnectedness and non-linear feedback. LS thus attend to “micro-structures” of convenings to better organize participants’ time and attention: the invitation, participant distribution, timing and steps, group configurations and space arrangements. Facilitators can adopt, adapt, repeat and combine methods like Open Space, Troika Consulting, Drawing Together, and Impromptu Networking to support gatherings of any size. We believe LS can ease the work of dismantling oppression and reassembling the new pluriversal worlds we seek, by supporting communities of learning, design and social change in organizing inclusive gatherings, challenging institutional norms, and building alternative visions.

Keywords: liberating structures; complexity thinking; convenings; inclusion

1. Introduction

The COVID-19 pandemic disrupted our usual ways of gathering. It has been simultaneously harmful and freeing. The shift to remote and virtual convenings was exhausting for many people and has excluded people who lack access to technology. It also revealed possibilities for including more people across

different geographies and abilities in digitally mediated gatherings. Perhaps the chief effect of this rearrangement of social interactions was simply highlighting the importance of dedicated time for our collectives to connect around shared goals, in whatever format. Yet we (the authors) also notice how ineffective, boring, and unbalanced many meetings continue to be, whether they take place virtually or in-person.

While meeting or instruction norms are far from universal, many conventions of gathering – such as trappings of agendas and meeting minutes to purposes of decision-making and governance – are pervasive in formal organizations as well as social movements worldwide (Brown, Reed & Yarrow, 2017). While such gatherings play a key role in social life and organizational process, they have limitations. Meetings – whether in the Kenyan health sector (Brown & Green, 2017), urban planning in London (Evans, 2017), or the Spanish Occupy movement (Corsín Jiménez & Estalella, 2017), can “perform” the work of participation or empowerment to varying degrees of authenticity. Ethnographic accounts of transnational scientific projects reveal that while meetings can be a time-wasting exercise, they can also be generative for both relationships and project outputs (Riles 2017; Alexander, 2017).

A mid- or post-pandemic world offers an opportunity to rethink interactions – in workplaces, educational settings, and social movements – towards these more beneficial outcomes, particularly to harness collective knowledge for socially- and ecologically-minded innovation. Liberating Structures offer one pathway for reimagining the processes of gathering people together for learning, planning, exploring, or creating. Liberating Structures (LS) are a set of 33+ methods for inclusive, engaging and even fun practices that unleash group creativity and shared ownership; champions offer LS as alternatives to conventional meeting formats that effectively retain agenda-setting and decision-making power among few people (Lipmanowicz & McCandless 2013). LS in effect reorganize key elements of our convening systems – namely, participants’ time, attention, and energy – in subtle but simple ways towards emergent purposes and actions. LS can further scaffold our work in dismantling oppressive dominant systems and reassembling elements into the new worlds we seek: ones where everyone is collectively engaged in designing the future.

We draw on our own practical experiences with Liberating Structures in classes, meetings and workshops, to convey guiding principles and potential applications for designers and changemakers, recognizing the central function of facilitation in their work (Manzini, 2015). Although certainly new tools are needed for transformation, our goal is to recognize the value and amplify what already exists by helping to disseminate easy-to-access-and-apply approaches for pluriversal world-making. We show how these tools can support building pluralistic, dynamic communities for learning, design and social change. We include visuals throughout, recognizing multiple languages and ways of learning among readers.

1.1 Author Positionalities

Our perspectives in this paper – namely, our support of Liberating Structures and their value in convenings for the pluriverse – reflect tensions in how our evolving identities as scholars and citizens intersect with the realities of our livelihoods and institutional environments. We are both white, able-bodied, cisgender American women with doctoral degrees in the social sciences (planning; international development). We jointly have decades of experiences studying and practicing development and social change in the Global South and our home state of Louisiana. We currently work in a social innovation center in a private research university in the Southern United States, where enduring white supremacy, indigenous genocide and legacies of slavery and segregation uphold current structures of wealth and political power. Day-to-day, our university positions entail a lot of convenings, including research presentations, classroom teaching, capacity-building sessions and participatory feedback sessions. Our privileged identities can provoke or elicit both authentic respect as well as undo deference, authority

and presumptions of expertise, whether in our roles as professors guiding students in the US or guest trainers in a Kenyan non-profit.

Our personalities, values and brain chemistries further complicate these situations. As an introvert, Laura finds that group meetings can be exhausting and that she needs time to herself to process her thoughts during gatherings and recover afterwards. Máille finds that the entitlements learned through her whiteness and professional affiliations are exacerbated by neurodivergence, such that she can be either overly dominating or disengaged in conventional meeting structures, even while aspiring to more power-sharing collaboration. We have both committed the errors of espousing participation or inclusion while failing to give time to others' voices or worldviews. We have also both sat by, frustrated, watching unsatisfactory gatherings unfold: faculty meetings where only senior members speak, conferences where presenters read their articles, classrooms where the same student rambles on while others nod off or roll their eyes. From American higher education to community-based development in the Global South, we have found the same dynamics of endless, long meetings. The agendas, the unspoken rules, the power dynamics – all functioned to curtail participation, creativity, and collaboration.

We are constantly seeking more methodologies for inclusive, dynamic and emergent co-creation. As scholars of social innovation (see Murphy et al., 2021), we incline towards transdisciplinary action inquiry to address wicked problems, from children's access to play to global climate change. We see problem-solving as a relational process that requires healthy, interdependent social structures. Yet dominant academic and professional paradigms offered us few good models for how to work better together for the just, equitable and ecologically sound futures we desire. Over time, we learned what meaningful interactions felt like to us by seeking out and orchestrating more unconventional gatherings such as creative design sessions, relational meditations, group inquiries, and empathetic learning communities. We realized that the good work at conventional gatherings happened in the coffee breaks, outside the formal agenda! It is in that spirit that we both found Liberating Structures appealing. When Laura learned about the menu of LS methods around 2013 grounded in complexity science, it made sense to her. She introduced the approaches to Máille, then her graduate student. We have found LS a welcome addition to our facilitation toolkits ever since.

2. Background on Liberating Structures

2.1 *The Origins of Liberating Structures*

Our current use of “liberating structures” refers to interactional methods popularized by Henri Lipmanowicz and Keith McCandless in the early 21st century. However, LS has a deeper lineage. Current scholarship attributes the concept to American action researcher William Torbert (Kimball, 2012). Through experiments in educational settings in the US in the 1970s, Torbert (1978, 1991) advanced a theory of “liberating disciplines” as a mode of organizing, indicative of higher-order organizational action logics that enable transformative inquiry. McCandless and Lipmanowicz, innovation specialists with deep global experience, began giving shape to this praxis after bonding over mutual interests in practical uses of complexity thinking. They worked with many others to field test protocols in US healthcare and Latin American business contexts, eventually curating a menu of 33 liberating structures with detailed protocols available open-source and in a field guide. Along with creating entirely new microstructures, their protocols build on recognizable design and collaboration methods, including World Café or Positive Deviance (Kimball, 2012). Figure 1 depicts the full menu of methods with titles, icons and brief descriptions. They selected these 33 for their power in re-designing how people can come together for more engaging, playful, inspiring, purposeful, and innovative sessions.



Figure 1. Visual menu of liberating structures Source: Lipmanowicz & McCandless (n.d.), Liberating Structures website.

This LS origin story is a partial account that credits mostly white, Western men with creating and disseminating these methods. Many other individuals of diverse backgrounds have been instrumental in developing and scaling this school of thought, such as Indian American communications scholar Arvind Singhal (pictured with Lipmanowicz and McCandless in Figure 2 below), who has popularized LS in education. We need a deeper genealogy for LS that traces their likely culturally diverse, non-industrial influences. As a start, for example, Singhal et al. (2020) link LS's theoretical groundings to many dialogic and constructive pedagogies, including Paulo Freire's "liberating education" for the poor. Torbert's (2021) more expansive view of "liberating disciplines" includes "trans-paradigmatic" spiritual practices

like Christian prayer and Hindu yogas; he credits the Chinese divination text, *I Ching*, for example, with helping him discover new modes of inquiry that balance intuitive and scientific ways of knowing (p. 153). We also recognize that a global and diffuse community of practice is continually shaping and owning liberating microstructures praxis. A decentralized network is using wiki-pages, Google documents, Slack teams, virtual events and open-source materials to adapt, invent and diffuse practices.



Figure 2. LS menu creators Henri Lipmanowicz (left) and Keith McCandless (middle) with LS scholar Arvind Singhal (right). Source: Lipmanowicz & McCandless (n.d.), *Liberating Structures* website.

Furthermore, systematized LS methods are not automatically critical or decolonial. Lipmanowicz and McCandless (2013) advanced their protocols working in public, private and citizen sectors; their book features applications of LS in reforming courts for child welfare alongside inclusive decision-making in corporate contexts. Yet the extent to which innovations within mainstream institutions can subvert the divisive and destructive logics of global capitalism or settler-colonialism is uncertain (Escobar, 2018). LS, like any tool, can be used uncritically to uphold harmful systems. For example, Lipmanowicz and McCandless (2010) used LS to foster bottom-up creativity in a global pharmaceutical company – an industry that at best leverages the market and public funding to produce medicines for customers, and at worst withholds life-saving drugs through price gouging for profit, neither of which constitute social innovations that are just or sustainable (Phills et al., 2008). We also respect Tuck and Wayne Yang’s (2012) assertion that “decolonization is not a metaphor” automatically commensurate with liberating social change. LS can even be used for radical social justice aims without actually working to repatriate land to indigenous peoples (though they could be used for that agenda). It might be difficult to disentangle LS completely from Euro-modernity, a dominant worldview associated with exploitative development and representative democracy alike (Kothari et al., 2019). In Section 4, we revisit this issue of liberating structures and pluriversal thinking.

2.2 Complexity Thinking Underlies Liberating Structures

The potential of LS for pluriversal aims begins with its underlying framework, which is based on insights from complex systems thinking that recognize the interconnectedness of elements, feedback loops, and non-linear changes (Boultan et al., 2015; Escobar, 2018). Complexity thinking suggests that innovations do not arise from careful planning or individual heroism, but instead emerge from the interactions of people, other actors, and dynamic environments. Small shifts in variables within complex systems can

have powerful impacts over time leading to regime change via “tipping points”. Drawing from these principles, LS methods attend to the relevant details of interactions that can enable systemic shifts, not only within a group but also in the wider environment.

Applying this ontology of complexity to meetings promotes ways of engaging outside of common top-down, centralized, return-to equilibrium management styles. Lipmanowicz and McCandless argue that organizational change strategies too often focus on difficult, costly and time-consuming alterations to macrostructures such as office buildings or organizational charts. Instead, they advocate for bottom-up change through easily-manipulated “microstructures” – a term they coined to render visible the small factors shaping interaction, such as a meeting location or format. Unfortunately, conventional microstructures such as presentations, status reports, brainstorming sessions, and open and managed discussions tend to become the routine, even though they limit dynamic participation (Lipmanowicz et al., 2015). The matrix in Figure 3 illustrates how these conventional forms lack structure for large-scale engagement of all actors in a system, while providing either too much or too little regulation of content. Liberating microstructures, on the other hand, employ just enough structure for self-guided group learning; the structures serve as enabling foundations, rather than constraints (Torbert, 1978).

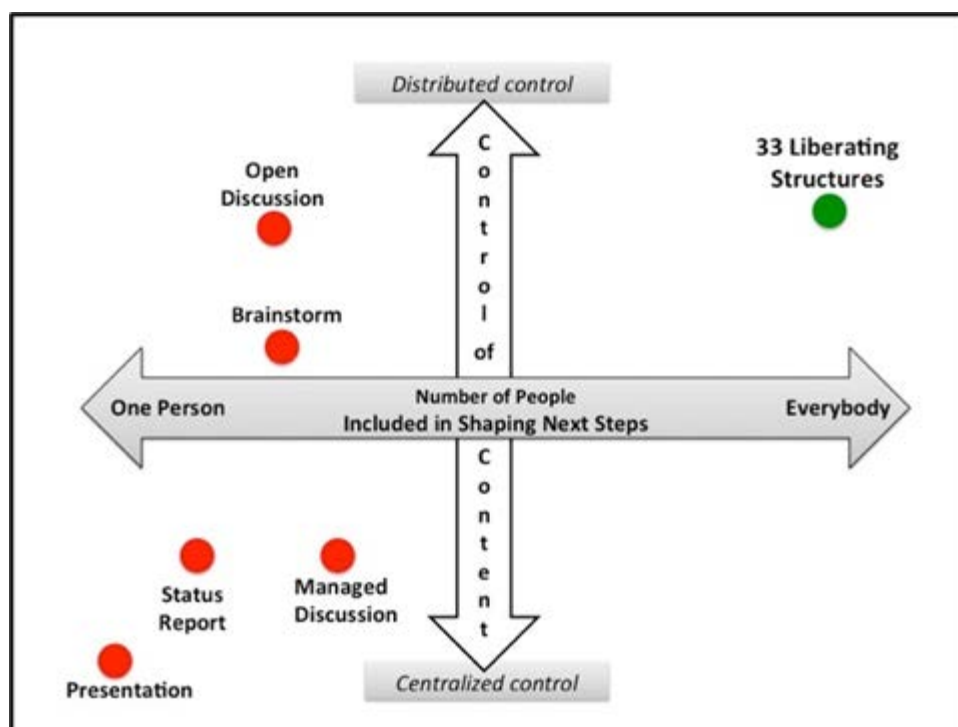


Figure 3. Liberating and conventional microstructures: levels of control and engagement. Source: Lipmanowicz & McCandless (n.d.), *Liberating Structures* website.

Thus, liberating microstructures enable what the US-based pleasure activist and emergent strategist adrienne maree brown (2017) calls “intentional adaptation”. Brown likens collective leadership to the murmurations of starlings where groups move together in a purposeful but decentralized way. The flocking of birds is an oft-cited example of a complex adaptive system that produces sophisticated patterns of movement based on simple rules of synchronicity and adjustment.

2.3 The Simple Rules: Microstructure Design Elements

Including everyone in reflecting, learning, envisioning and sharing together requires careful attention to the characteristics of all microstructures (whether liberating or conventional) such as intentionality,

spatiality, and temporality. These design elements can function as light “guardrails” for improvisation, such as we might hear when jazz artists use simple rules to play new music together (Kimball, 2012). For each of their LS protocols, Lipmanowicz and McCandless (2013) identified design principles, or structural elements, that shape the right amount of control for the group. These five elements help distribute and contain content while expanding power to all participants to influence events:

1. **Structuring an invitation** to participate with a thoughtful, welcoming question or prompt that orients the group around their purpose – the how and why of gathering
2. **Arranging space and outlining materials** needed for creative, inclusive engagement, through formations like circles or materials like post-its, to organize energy and attention for the purpose
3. **Distributing participation** thoughtfully, to avoid top-down or didactic approaches, so that everyone present shapes the agenda and contributes (as opposed to a presentation where one person gets most of the time)
4. **Configuring groups** in smaller or changing formations (as opposed to one large group), to maximize interactions and opportunities for connection to many people and ideas
5. **Outlining the sequence of steps and time allocation** to allow for clear processes and iterations that more effectively include everyone in generating ideas (rather than one linear program)

Identifying these microstructure elements can create a “pattern language for engagement” that we can manipulate to “fuel interactions of a certain quality”; identifying these principles invite us to understand this language and experiment with it intelligently to meet our needs (Kimball, 2012, p. 3). Just as with any language, mastering these principles allows us to have increasingly complex conversations with deeper meanings and outcomes (Lipmanowicz & McCandless, 2013). This mastery could take the form of new LS methods and adapted applications for different group sizes and purposes (Kimball, 2012). Another form of mastery can include “strings” that combine multiple LS methods for more elaborate purposes such as identifying system behaviors, prototyping new solutions, or catalyzing frontline action. New adopters with concrete short-term goals might begin with simple strings, such as when leaders of the American Psychiatric Nurses Association employed Impromptu Networking, 1-2-4-ALL and Crowd Sourcing at a conference to collectively determine new priorities for research (Mahoney et al., 2016). More advanced practitioners can combine these simple warm-up methods with more elaborate methods for organizational needs, such as Purpose-to-Practice, Open Space Technology, and the Ecocycle framework. These combinations can support complex, multi-day processes, like strategic planning retreats and global conferences.

3. Liberating Structures in Use (in an online world)

Here we share examples of facilitating LS from our own classrooms, meetings, and workshops. We also include examples shared with permission by colleagues. We hope to illustrate both how one might use a range of liberating structures and how we have adapted the five microstructure design elements to fit different situations.

3.1. Troika Consulting

The purpose of Troika Consulting is to create a reciprocal space for peer advising on practical and urgent issues. In a quick exercise, everyone can give and receive help on a compelling challenge or problem, no matter the size of the group. Here is the original protocol for this microstructure:

1. **The Structuring Invitation:** “What is your challenge?” and “What kind of help do you need?”

2. **How Space Is Arranged and Materials Needed:** Any number of small groups of 3 chairs, knee-to-knee seating preferred. No table!
3. **How Participation Is Distributed:** In each round, one participant is the “Client,” the others “Consultants”. Everyone has an equal opportunity to receive and give coaching.
4. **How Groups Are Configured:** Groups of 3 - people with diverse backgrounds and perspectives are most helpful.
5. **Sequence of Steps and Time Allocation:**
 - a. Invite participants to reflect on the consulting question (the challenge and the help needed) to ask when they are clients, 1 min.
 - b. Groups have first client share his or her [or their], 1-2 min.
 - c. Consultants ask the client clarifying questions, 1-2 min.
 - d. Client turns around with his or her [or their] back facing the consultants. Together, the consultants generate ideas, suggestions, coaching advice, 4-5 min.
 - e. Client turns around and shares what was most valuable about the experience, 1-2 min.
 - f. Groups switch to next person and repeat steps. (Lipmanowicz & McCandless, 2013, p. 194)

Tweaking tiny details in these design elements matter for facilitating desired outcomes. Laura uses this method regularly in the classroom with graduate students working on course projects. She created the visual instructions in Figure 4 to help students understand the design elements for one round. In this diagram, the purple figure is the Client; the Green and Red figures are Consultants. The graphic primarily demonstrates **steps** for an in-person setup, with the trios sitting close together at first and the Client turning around during consulting. Laura consulted the LS Slack community for ideas on adapting the method for a virtual meeting **space** such as Zoom, where trios could gather in private breakout rooms. The blue text boxes demonstrate these adjusted instructions. A key modification for remote engagement involves the Client turning off their camera for the advising portion (shown in the middle box), which mimics the cues of the Client turning around in their chair. Avoiding eye contact allows for the Client to listen but not engage with the Consultants. By completing another two rounds, everyone gave and received advice in under 30 minutes, no matter the size of the group. Playing both the Client and Consultant role enhanced student learning outcomes from the projects.

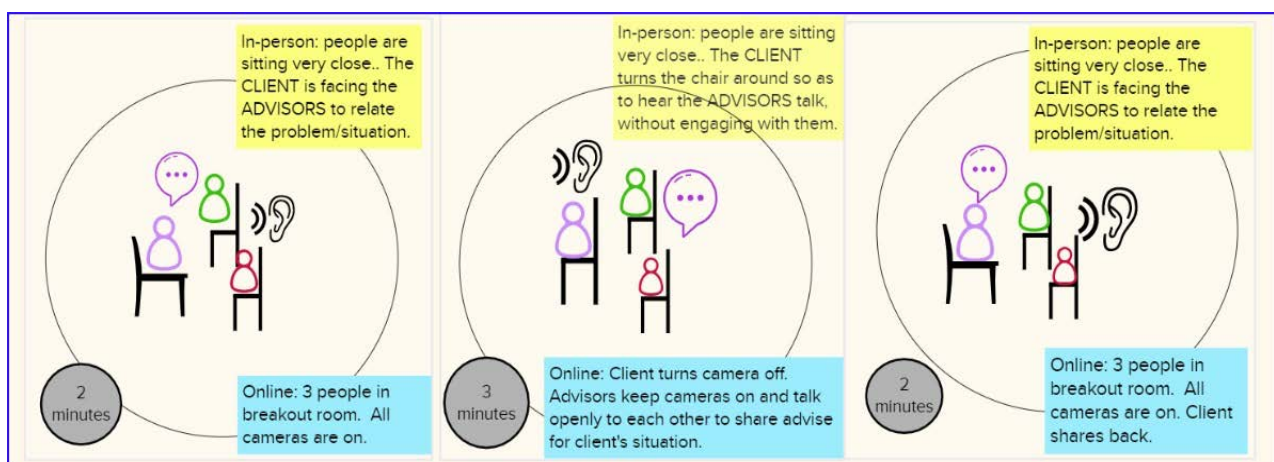


Figure 4. Visual instructions for One Round of Troika Consulting; prototype visual was created for an online graduate class.

Another implementation of Troika Consulting features a “string” of methods used in an organizational context. Samantha Fleurinor, our colleague in the center where both authors work, was tasked with

facilitating monthly 2-hour team meetings to enhance collaboration among our members (who tend to work independently on different projects) in alignment with our adoption of a multiculturalism framework. Samantha turned to Troika Consulting to show the value we can bring to each other's work. However, Samantha started the meeting with another method she encountered in an online learning community: Spiral Journaling (Barry, 2014). Figure 5 demonstrates the template for this exercise, which involves solo journaling to help prepare each Client for the consulting session by identifying the areas where they want to ask for support. Following the virtual adaptations of Troika outlined above, Samantha created breakout groups, paying close attention to **group configuration** by matching up team members who work together infrequently.

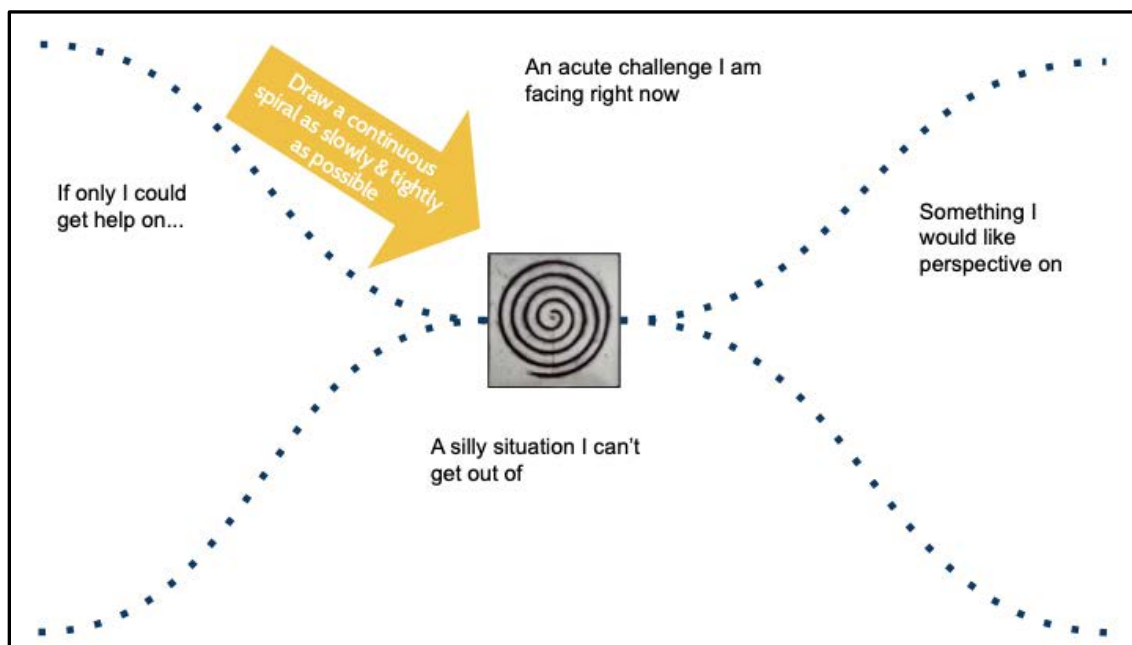


Figure 5. Visual template for Spiral Journaling exercise from team meeting. Source: Adapted from Barry (2014) by Samantha Fleurinor.

We see value in Troika Consulting beyond simple and practical problem-solving. For students, Troika helped build community and support systems and tapped into the collective wisdom of peer learning. For a team, Troika revealed different challenges they faced under the same mission or project. In a conference or global convening, Troika can be used to build new relationships among activists around the world needed to sustain and envision future world-weaving. Furthermore, Troika can help balance power dynamics through mutual reciprocity. It provides *everyone* an opportunity to offer their advice and help with each other's problems, as opposed to the typical one-way exercise of capability often present in service provision.

3.2. Drawing Together

Where Troika Consulting employs verbal processing for pragmatic solutions, drawing taps into unspoken, or unconscious, thought processes to reveal unexpected meanings and patterns. It starts with silent, solo reflection on a challenge or situation using five easy-to-draw symbols, depicted in Figure 6, which were field-tested in different cultural contexts to confirm their universal meaning.



Figure 6. Visual vocabulary of Drawing Together symbols and meanings. Adapted from Lipmanowicz & McCandless (2013).

In March of 2021, Laura posed the following **structured invitation** to her social innovation graduate students: “Draw a journey of your world beyond the Covid pandemic ... “. She adapted the standard **steps** from the field guide protocols (Lipmanowicz & McCandless, 2013). She shortened the **timing** to reflect the limitations of a short class period and the comfort level of a group that had already spent two months together expanding their creative skills (including drawing):

1. Review the meanings of each symbol with the group, 1 min.
2. Warm up with practice drawing the 5 simple shapes, 2 min.
3. Solo: Sketch out your “journey of working on ___ using only the shapes, and no words” 5 min.
4. Solo: Do a second draft of this journey. Add color, move/adjust shapes, 3 min.
5. In pairs: Share with someone else who will interpret what the drawing means, without the Drawer explaining anything or providing verbal commentary (swap drawings, read them), 5 min.
6. As a whole group: “What do our drawings reveal?” 5 min.

The four drawings in Figure 7 show the range of paper and digital sketches. Since the class was being held remotely on Zoom, students posted drawings on the digital whiteboard platform, Mural. Therefore, everyone could read and make sense of others’ journeys. Students reported that it was restful, spiritual, and team-building pause in their frenetic online spring semester. It helped them understand their own personal growth during the pandemic and their aspirations for changing societal structures.

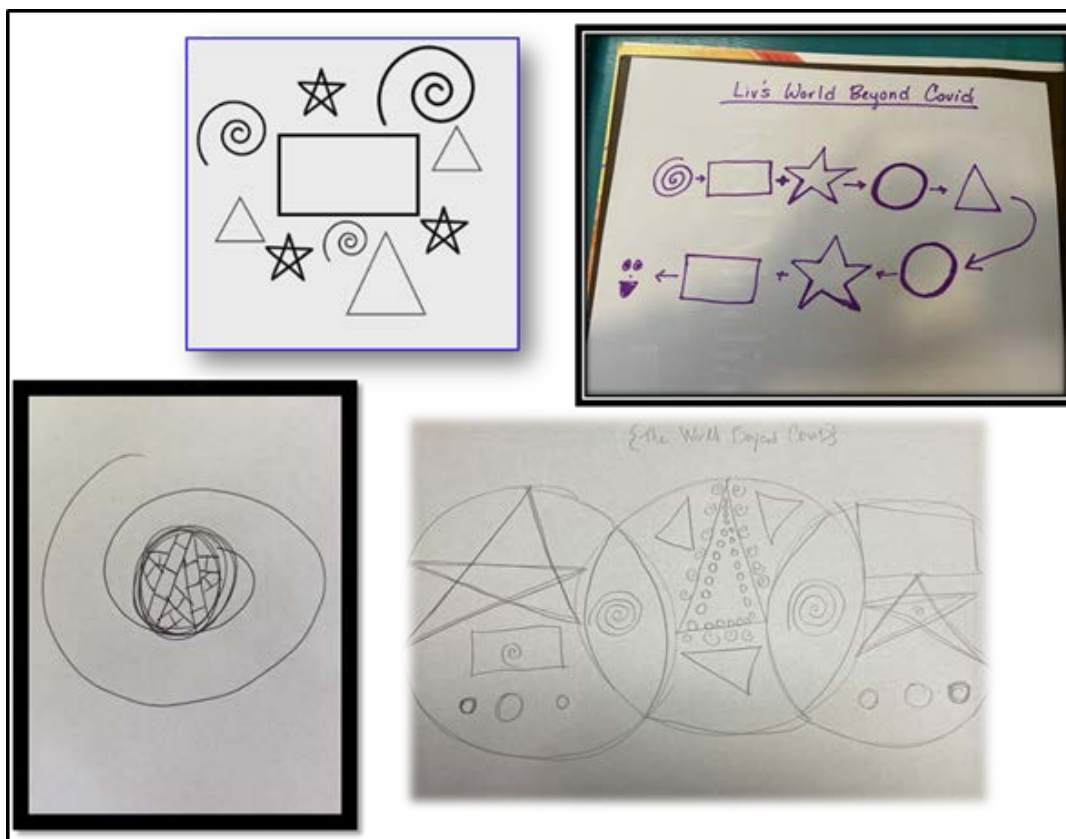


Figure 7. Examples of student journeys beyond COVID-19 pandemic from Drawing Together exercise in Laura's class

We like Drawing Together as a microstructure for accommodating different styles of thinking and learning. It plays with different forms of processing and communicating, allowing, for example, introverts to recoup energy and explore their ideas through solo reflection. It can also be useful for asserting the value of “affective perspective-taking” or intuitive, right-brain processing in cultural contexts where cognitive or analytical thinking styles are venerated (many university classrooms and professional contexts). By using Drawing Together, in under 15 minutes, a group of any size can have a profound moment of introspection and connection.

3.3. What, So What, Now What (W^3)

While the previous two liberating structures are more individually-focused, the “What, So What, Now What” method (W^3) emphasizes group-level processing of a shared experience to evaluate progress and consider next steps. Figure 8 adapts the standard design elements for W^3 into a visual template (except for **space and materials**, which involve separate instructions for different settings). The **invitation** is for groups to move along a ladder of inference in three stages of processing after a shared event, each involving three **steps** of individual, small grouping, and whole group work.

STAGES: Move along a ladder of inference	INVITATION: After a shared experience, ask....	STEPS: Complete all 3 stages, following 3 repeating steps/stage		
1. WHAT: Collecting all salient observations	<i>What happened? What did you notice? What facts or observations stood out? What do you know?</i>	STEP 1 →	STEP 2 →	STEP 3 →
2. SO WHAT: Sense-making to develop insights	<i>Why is that important? What patterns or conclusions are emerging? What hypotheses can you make?</i>	Individuals Record initial thoughts	Groups of 5-7 Share & add ideas	Group of 10+ Highlight key points
3. NOW WHAT: Planning to suitable response	<i>What actions make sense? What should we do next? What steps can build on this learning?</i>	2 min	7-10 min	7-10 min

Figure 8. Diagram of design elements for What, So What, Now What. Source: Adapted from Lipmanowicz & McCandless (2013) p. 197

Another colleague, Rebecca Otten, used W^3 in a string during a workshop with a local youth advocacy board. The board wanted Rebecca's help mapping resources and relationships in their networks (to better support other youth navigating foster care systems). Rebecca wanted to facilitate a working session that balanced the board's interpersonal tensions with productive design. Máille recommended liberating structures generally and W^3 (a personal favorite) specifically so as to attend to both session process and content. Using the virtual software ConceptBoard for remote collaboration, Rebecca led the group through a mapping exercise to identify where a young person in foster care might tap into existing resources. She then used W^3 to debrief the act of mapping itself. To stimulate reflection on new ways of working together and create accountability, she added prompts to the invitation around participants' feelings, take-aways and commitments. Figures 9a and 9b show highlights from the three stages of WHAT/SO WHAT/NOW WHAT. Responses indicate that participants felt empowered and connected by sharing and documenting their siloed knowledge. They also envisioned individual and collective actions around both the content and process of the project, such as finding new resources *and* taking/making space in interactions.

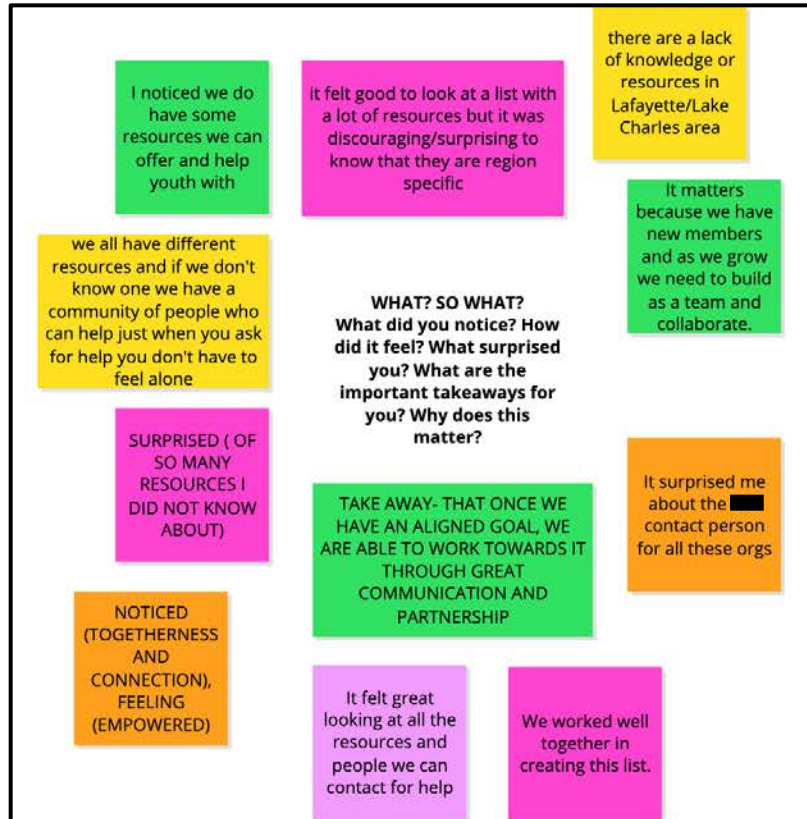


Figure 9a. Advocacy board's responses to W³ prompts of "What?" and "So What?". Source: Rebecca Otten.



Figure 9b. Advocacy board's responses to W³ prompts "Now what?". Source: Rebecca Otten. Names redacted.

In general, we see W^3 as most useful for consensus-building and course-correcting for a group of people that will continue working together over time, such as the board members in the example. Much is at stake in such collectives, where disparate interpretations of the past can complicate decisions about the future. This exercise helps to ground action plans – a speculative endeavor – in actual observations and the meanings we ascribe to experiences. The iterative steps of individual work with small groupings in each stage help surface many more observations, insights, and ideas in a short time than conventional methods might allow. Participants can see how even the “facts” result from our biased and partial viewpoints, and that surfacing these different perspectives can lead to a more holistic strategy.

3.4. Simple Liberating Structures for Everyone

The above examples demonstrate a few extended applications of LS methods that we adapted using appropriate digital platforms and visual instructions as well as strings of multiple methods. This is just a sample of methods we use regularly. Our facilitation toolkits include many other LS methods that we deploy for classroom teaching, design workshops, and discussions with colleagues and community groups. A few others from our repertoire that we recommend for “getting your feet wet” with LS include:

- **1-2-4-ALL:** Considered a “gateway” method, this basic LS bounds and balances discussions with a simple progression from solo reflection (1 minute) to paired (2 minutes), two pairs (4 minutes), and ALL (whole-group discussion). This scaffolding gives all individuals space for reflection, gets people sharing with each other, and consolidates ideas and questions.
- **Impromptu Networking:** When convening many new people, this LS offers an alternative to awkward cocktail hours or instrumental schmoozing. Participants move around a room for one-on-one conversations fast three-minute rounds, around two questions: “What brings you here?” and “What can you offer this room/group?” An online version has two people in break-out rooms (add time), then moving one participant randomly to another room (think digital musical chairs).
- **25/10 Crowd Sourcing:** This alternative to classic group brainstorming supports buy-in and dissemination of new ideas. Participants write their most daring ideas on index cards then engage in iterative rounds of randomly passing and scoring cards with the whole group. By gathering and discussing the highest-scoring proposals, large groups can quickly and collectively wade through a plethora of solutions to elevate the freshest and most popular ideas.
- **Open Space Technology:** Through principles of self-organization, Open Space can focus a group while freeing and motivating individual action. Participants come to a gathering, such as an organizational retreat or professional conference, to deal with an overarching challenge. There, they co-create and enact the agenda by proposing, leading, and joining concurrent topical breakouts. The “law of two feet” encourages participants to wander among breakouts to find where they are best contributing and learning.

The methods we favor tend to reflect our roles as educators, trainers, and facilitators rather than project managers or community organizers. Even so, we aim to highlight methods valuable for individual learning and group sense-making required of ongoing teams.

4. Liberating Structures for the Pluriverse

As mentioned, LS can be applied in settings such as university classrooms and non-profit meetings. We also see possibilities in liberating microstructures for remaking everyday experiences to challenge unjust equilibria and catalyze small steps towards radical action. LS can serve a spectrum of political goals, from

moderate aims of cultural relativism within a one-world system to transformative philosophies of pluralism where many ontologies thrive (Escobar, 2021). In this section, we scaffold these pluriversal objectives. We outline key considerations for applying LS for inclusive gatherings, for challenging conventional behaviors and norms in modern institutions, and for embracing and imagining new coexisting worlds.

4.1. General Principles for More Inclusive Convenings

The most direct contribution of liberating structures for challenging universalism and embracing pluralism is to enhance **inclusion**. Inclusion refers to how people (assuming different identities are represented) are accepted, appreciated, and involved equitably in organizational life (Bernstein et al., 2019). LS can serve these goals by liberating the inherent creativity and wisdom of our crowd and promoting ownership and connection among participants, including marginalized voices. The utility of LS for more inclusive convenings, however, requires not just rote application, but wise adaptation to particular audiences, objectives and purposes, and relevant constraints. Therefore, we present considerations in using LS for inclusivity.

First, consider who is in the room: LS design elements help include everyone who is “already in the room” – who attends the class, meeting, conference, etc. This “room” can be large: facilitators can use LS with groups of any size, from 10-1000 people. But who gets that opportunity? LS design principles do not provide sufficient guidelines for who *should* be in the room. Our examples featured students in a class, staff in a university department and “stakeholders” for a planned retreat: a biased/partial role predetermined by official affiliations and organizational boundaries. Are these the “right” participants? This consideration is crucial given that members of social groups marginalized by variables such as race, class, ability, nationality, and more are systematically denied access to design, learning, higher education, and decision-making environments. Diversity is a necessary (albeit insufficient) condition for spurring innovation because it brings people together with different situated perspectives. One strategy, then, is getting beyond the view “from the top”. For immersive learning workshops, Lipmanowicz and McCandless (2013) recommend including participants from multiple levels of an organizational chart to maximize adoption of the LS methods. This same approach may be useful for organizational change initiatives; members of a manufacturing firm noted the importance of bringing diverse employees from across hierarchies and silos into ongoing LS facilitations, to generate holistic learning and transformation (Allen, 2018). Furthermore, any invitation needs specific and thoughtful attention to language, script, timing, cost/access of an event. Facilitators might consider how potential participants’ identities shape their perception of the invitation itself.

Second, modify methods for your audience: Facilitators need “personal knowledge of the ongoing dynamics of attention and empirical knowledge of the particular setting in question.” (Torbert, 1978, p. 130). In choosing and deploying methods, facilitators will likely need to adjust elements to ensure microstructures remain truly liberating, rather than inadvertently oppressive. The design element of **step sequencing** and **time allocation** offers a good example for adaptation. Standard LS protocols recommend quick steps and rapid iterations. However, pluriversal facilitators may adapt timing to ensure equitable access to meaningful participation. Adjustments may vary depending upon individual or group tendencies, such as participants with a stammer or limited literacy. Cultural speech patterns or beliefs about time may also affect participants’ ability to interact, especially in intercultural situations. Another example lies in the element of **space arrangement**. Though LS were designed for in-person gatherings, a community of practice began developing online applications (see the Slack channel) long before the start of the COVID-19 pandemic. For virtual gatherings – since remote engagements can mean stilted communication, dropped calls, small screens, etc. – facilitators should take extra care to model the method to ensure prompts and steps are understood. To that end, we offer

prototypes of visual directions (i.e., for Troika, Drawing Together and W³ in Figures 4, 5 and 8, respectively) developed over the last year of remote work.

Finally, stick with it for longer term culture shift: McCandless and Lipmanowicz (2013) advise that those who want to catalyze shifts towards a more participatory and innovative organizational culture must use LS consistently over time, not just ad hoc. This consistency strengthens relationships among parts of the system (e.g., the people) and stimulates behavior change through repetition. Longer-term applications link LS to organizational development. One US nursing school used a variety of LS over a two-year period to focus on challenges, appreciate effective practices, and design new forms of interaction (Mallert & Rykert, 2016). Stakeholders found that even though old patterns of conflict sometimes surfaced, the organizational culture was becoming healthier and would continue shifting. Multiculturalism trainings in American workplaces may echo these patterns: shifting norms towards inclusion likely requires “a set of sustained practices” that go beyond one-off “diversity trainings” (Bernstein et al., 2019, p. 397).

4.2. Challenging Conventions in Modern Institutions

Remaking worlds can start with individuals working within formal modern institutions – schools, design agencies, non-profit charities, UN agencies, government entities, small businesses, and global corporations. (The authors’ current employment in a university made our learning about LS possible.) Thoughtful individuals can bring LS principles to guide these convenings away from the default structures, through shaping the invitation to welcome all staff, choosing and organizing spaces with flexible seating and room to move; and by structuring prompts around “what is working”. Even these modest efforts to meaningfully include diverse voices in shaping agendas, if they transcend performative “participation” metrics, can challenge hegemonic ways of working. We share relevant examples here.

Educational settings: LS are a popular pedagogical tool. Case studies of K-12 and undergraduate settings offer moderate evidence that consistently using LS can enhance student learning; LS can democratize participation by creating a relational environment and evenly distributing voices (Singhal, 2016; Singhal et al., 2020). In our higher education examples, we aim to serve as facilitators of learning vs. “experts” passing on objective facts. LS guiding principles and specific methods can help bring alive pluriversal knowledge within a classroom and support non-hierarchical pedagogies of learning that engage students in multiple ways. By surfacing and playing with many perspectives, LS can help students and instructors connect better with diverse academic content. A praxis-based form of learning encourages students and instructors to take these modes of reflexivity, democratic inquiry, and radical action into other environments, which is part of the culture and aligns with theories of liberating and critical education (Freire, 2014; hooks, 1994).

Community design practice: Italian design educator Ezio Manzini’s (2015) calls for “expert designers” to engage with “diffuse designers” to surface insights and co-create solutions, essentially producing the distributed design knowledge needed for increasingly wicked problems. New roles for professional designers in creative processes include being a humble and enabling facilitator. Yet we understand that most (western) university design education lacks exposure to inclusive organizing methods. Training and academic practices might instead reinforce one-way presentations, patronizing and harsh design reviews, and/or alienating public charrettes featuring near-final designs for nominal approval. LS methods can better support including *all people as* diffuse designers of social innovations. To this end, expert designers can join online or local LS networks and learn to identify and string together methods like Appreciative Interviews (with stakeholders), Troika Consulting and Improv Prototyping in community workshops.

Social movement organizing: Other schools of thought around non-hierarchical activism also value the complexity principles underlying liberating structures. LS praxis seems consistent with the Jemez guidelines for organizing that emphasize inclusivity, personal development, self-determination, bottom-up organizing, relational justice, and mutuality and solidarity (Brown, 2017). Brown sees these as guidelines key principles for facilitation, a core activity of emergent strategy for movement organizing. LS can therefore offer concrete protocols for facilitators and organizers to amplify their impact, engage new members in leading actions, and reach diverse constituents previously excluded from action arenas. These types of dynamic interactions can help more grassroots organizations shift from dogmatic and closed-system tendencies towards the more adaptive and collaborative behaviors required for distributed and localized “design in a connected world” (Manzini, 2015, p. 29). Social movement leaders could, for example, organize a day-long annual unconference featuring structures like Open Space Technology, User Experience Fishbowls and Conversation Cafes to build their movement effectively.

4.3. Tools for Pluriversal World-Weaving

So far, we have argued that LS can help creatively and unobtrusively **dismantle** structures of oppression within ruling institutional environments through including more voices and challenging default modes. Yet we recognize that many more institutions, groups, dreams, and creeds exist beyond those mainstream scenarios and institutions. LS can also help **reassemble** elements in these systems by reorienting the fragments – the “waste” of people, ideas, resources --towards inclusive and fruitful meetings. LS can help cultivate the pluriverse, a world where “many worlds fit” (Kothari et al., 2019 p. xxviii referencing the Zapatista autonomists). We find pluriversal scholarship on knowledge systems, design ontologies, and systems awareness to offer rich food for thought that suggests other possibilities for applications of LS:

Supporting Epistemic Plurality: Pluriversal world-making calls for epistemic justice and valuing alternative forms of knowing about the world (da Sousa Santos 2014; De la Cadena & Blaser, 2018). LS methods, since they include and give voice to many, can help align gatherings with political aims of undoing the epistemic hegemony of European rational models and moving towards valuing local, self, and relational knowledge. LS protocols can support learning, coalition-building, and designing transitions from non-western centers. LS methods for facilitation can surface different ways of understanding the world, such as through experiential knowing, valued traditions, and scientific evidence. Furthermore, pluriversal organizers can experiment with LS microstructures and methods. The LS global community can begin enabling adoption by translating existing protocols into other prominent global languages like Mandarin, Swahili and Arabic (the <https://liberatingstructures.eu/> website already has links to Liberating Structures resources in different European languages). We can envision more adaptations of the visual alphabet (see Figure 2) for non-dominant language groups, non-literate or oratory cultures, and multicultural gatherings. Especially for these contexts mentioned, we expect that facilitators have already created new LS methods already that can be shared more widely. Learning and playing with the deeper principles of LS also allows facilitators to identify dominant epistemologies in their own environment underlying default ways of gathering, and to disrupt the notion of one way of doing things.

Convening Multiple Worlds: Pluriversal thinking leads to valuing relational orientations towards nature and each other, challenging governing notions of western individualism and progress-through-accumulation (Escobar, 2018). As examples, look to how the embodiment of a caring and generative natural world in the goddess or concept of *Pachamama* influences eco-movements, communal living or feminist thought in the Andean region (Lerma, 2019; Cullinan, 2019). What is the place for LS in holding such alternative visions? As the practice of purposeful gatherings appears ubiquitous among cultural and social groups, convening can be an act of constellating many worlds or reaching agreement across them (Brown, Yarrow & Green, 2017). Indigenous tribes will need to meet with government officials and

corporate stakeholders/extractivists to manage conflicts, address property arrangements, negotiate land management, and even rewrite national constitutions. LS approaches can help empower marginalized voices in these proceedings and help political blocs navigate divergent interests; perhaps through methods like Heard, Seen, Respected (for improved listening), Social Network Webbing (for relationship and resource building), What I Need From You (for reconciling needs across system locations) and Integrated Autonomy (for transcending conflicts to “both/and” resolutions).

Designing for Social Change: “Convening across worlds” implies the necessity of co-design. If the world is indeed transitioning away from Euro-modernity towards multiple models of living (ideally sustainable); and if design can help shepherd these transitions through “local cosmopolitanism” (Manzini, 2015, p.2), then diverse groups must co-create new, albeit distributed, futures. Therefore, everyone must be capable of imagining worlds into being. Pluriversal thinking recognizes that design is a human ability found everywhere. Thus, it calls for emancipatory design (Noel, 2016), building design capabilities for citizens (Manzini, 2018), and expressly not appropriating peoples’ designs for other commercial ends. Democratizing design capacities frees space for individual expression within larger designs and allows many solutions to emerge. Challenging a dominant paradigm does not call for another overarching, hegemonic solution to replace it (such as with Marxism, communism replacing capitalism), but for a wide range of “alternatives” in the same space. Expert and diffuse designers can use LS methodologies to support sense-making, creativity and experimentation vital for empowering designs (Mulgan, 2019). LS themselves exemplify transformative social innovation by creating feedback loops among dynamic, collective design processes and establishing new social relations of mutual power (Escobar, 2018).

5. Conclusion

This paper aims to help diffuse Liberating Structures principles and the 33 facilitation methods within the pluriversal design community. We see LS as a set of useful, tried-and-true tools that scholars, designers, activists and other changemakers can adapt and augment for diverse needs, in both in-person and online gatherings, for pluriversal world-weaving.

We shared how Liberating Structures reflect a worldview of complexity acknowledging interconnectedness, feedback, adaptation and emergence. For these, LS offer new, simple rules of interaction – the design elements of microstructures – that better organize our time and attention. Our examples of applying LS illustrate these elements at work. From our experiences within dominant US cultures and modern institutions of higher education and non-profits, we offer key principles for enhancing inclusion and challenging default microstructures in similar settings, and with attention to online gatherings.

We also explored how LS intersects with pluriversal thinking, seeing multiple intersections to support ways of organizing society beyond hegemonic forms of modernity. LS methodologies can ease the practical work of dismantling oppressive systems and reassembling those elements for pluriversal worlds. Learning the principles and specific protocols can energize dynamic communities of learning, design, and organizing and transform convening patterns away from top-down, one-way communications towards decolonial and pluriversal values. Small shifts in interaction quality, will, we hope, lead to tipping points in behavior change among human actors at many levels, offering us more ground-breaking university seminars and design studios, effective community-based participatory action research, sustainable and democratic grassroots collectives, and powerfully networked social movements.

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Feral Ways of Knowing and Doing: Tools and resources for transformational creative practice

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Creative practices have a role in mediating and supporting concrete, meaningful actions towards sustainability transformations. With this in mind: What are the possibilities and limits of the tools and resources that contemporary creative practices are using to reconceive and redesign forms of interaction between different disciplines, audiences and cultures for sustainability transformations? This contribution presents preliminary findings from a transdisciplinary workshop where the participants were invited to share their experiences of designing or using “tools and resources for feral ways of knowing and transformation” within creative practice. While the concept of ‘feral’ remained open to a wide range of different interpretations, participants used the term in three main ways: to foreground embodied, situated, bottom-up, ways of working with organic material and more-than-human issues that require relinquishing control; to refer to reappropriating existing tools and processes in ways and for purposes different to the original intentions, and; to accept and enable thoughts, feelings, and actions to develop in their own ways, beyond the creative practitioner’s control.

feral; creative practice; resources; transformation

1. Introduction

Design’s role in reinforcing the globalized, neoliberal, capitalist modernity that cripples social and environmental sustainability has been deeply felt, discussed, and criticized (Escobar, 2018; Papanek, 1972). At the same time, design and other creative practices can also inspire and help people reflect on

our place in the world and what it might mean to each of us. For example, creative practices can help us realise our interconnected existence and stimulate critical imaginaries of and collective actions towards more sustainable ways of living (Hesselgren et al., 2018; Irwin 2015; Light et al., 2018; Maggs & Robinson 2020) and being together on a damaged planet (Tsing et al. 2017). As any transformation towards sustainability must be imagined before it can be realised (Meadows, 2014), creative practices' power to evoke imagination has potential to help pave pathways towards social justice and environmental citizenship (Fazey et. al, 2018; Lopes et al., 2017). Hummels et al (2019) highlight the necessity of a first-hand perspective for realising transformation arguing that those aiming to foster change need to engage with, and live, feel, embody, and 'become' the change on their own. Creative practices bring a unique experiential (and aesthetic) quality to action towards environmental and social sustainability and can have "a significant affective, political or spiritual impact on self and others, often to a stated end but not always articulated in the work" (Light et al., 2018). Creative practices' ability to create situations that bring together stakeholders in co-creative, at times provocative, and situated exchange, they are well positioned to support transformative thinking and action.

Such transformative creative practices are, however, often fragmented, poorly resourced, and badly understood (Light et al., 2019). As such, they are currently under-utilised agents of transformation in society, ripe with the potential to be developed further to this end. In addition, Light et al. (2018) notice that sustainability-oriented creative practitioners and researchers are often unable to easily find and connect with each other across fields of practice and discipline. A part of our ongoing work has been to map and bring together diverse existing tools and resources that creative practitioners across multiple creative fields have been using in their work. We aim to investigate how, why, and with whom are such tools are being used, and help make resources available in ways that are useful for those involved in transformative creative practices. Our aim in doing this is to help identify ways that can improve the fragmented representation and understanding of socioecologically transformative creative practices. Our research is guided by the following question:

What are the possibilities and limits of the tools and resources that transformative creative practices use to reconceive and redesign forms of interaction between different disciplines, audiences and cultures?

A basic definition of a tool is an object that extends one's ability to transform features of a particular environment. Tools can have multiple forms (for example, tangible or imagined, inanimate or biological, object-based, performative and others), and can be reappropriated differently in different contexts. As social artefacts, tools embody particular ideologies, politics, and values, while at the same time shaping identities, interpersonal relationships, thought, and creative expression. Tools enable communication at multiple levels, serving purposes for which they were not originally intended (Mattern & Zubalsky, 2019), ranging from everyday-life purposes to supporting creative pursuits, as well as and détournement, a creative misuse, divergence of subversion of the existing expressions, as conceptualised by the revolutionary artistic movements Letterist International and subsequently Situationist International (Debord & Wolman, 1956).

Tools can become part of and enable access to resources, as evidenced in games, maps, cookbooks, zines, card decks, manifestos, lexicons, almanacs, guides, DIY protocols, performance scripts and more. Their adaptive and communicative qualities often make them particularly useful for participatory creative practice, enabling embodied and sensory forms of co-creative engagement with participants. These experiential modes of creative exchange can help engage participants, publics and communities more viscerally in thinking about sustainable transformation (Costanza-Chock, 2020; Light et al. 2018; Vervoort & Mangnus, 2018; Pelzer & Versteeg, 2019).

The aim of our work on tools and resources is not to make a definitive collection of examples, but to provide opportunities for creative practitioners to come together, become familiar with each other's work, and experiment with one another's tools. Our work is inspired by existing compilations of tools and resources for creative practitioners including, for instance, Shannon Mattern and Or Zubalsky's syllabi and teaching materials for their Tools seminar at The New School (Mattern & Or, 2020), a list of resources for critical technical practice, pedagogy and inventive methods compiled by Laura Forlano and collaborators (Forlano et al., n.d.), and the Covid Creatives Toolkit, initiated by Kit Braybrooke to provide a set of curated, time-specific, mostly free and open source resources to support creative practitioners during the COVID-19 pandemic (#CovidCreativesToolkit, n.d.).

2. Feral Ways of Knowing and Transformation

In this contribution, we present preliminary findings from the transdisciplinary workshop Feral Ways of Knowing and Transformation, where participants shared their experiences of designing or using what they identified as tools and resources used within their creative practice, which they also self-identified as transformative. The workshop took place at the Uroboros Festival in May 2021, within the framework of CreaTures (Creative Practices for Transformational Futures), a European research project bringing together researchers and creative practitioners to explore the role of creative practice in socioecological transformations. Drawing on our ongoing research into the area of resources that inform and/or result from transformative creative work, the workshop's aim was to understand the qualities of tools for transformation from creative practitioners' perspectives. We invited a number of creative practitioners engaged with matters of socioecological transformation to each present and discuss one tool or resource, which they understood as 'feral'.

Feral as a concept can be ambiguous and invite multiple interpretations. In our work, feral broadly denotes the alternative, experimental, more-than-human, and wild, challenging the dominant ontological and epistemological discourses. In Feral Atlas (Tsing et al., 2020), Anna Tsing and colleagues see feral as "emerging within human-sponsored projects but are not in human control". Making a departure from the concept of 'in the wild' research, or science, Mike Michael (2017) suggests that feral can be used as a mode of engagement that, while having elements of domestication, operates within its own rules, 'beyond domestication'. Genevieve Bell (Tucker, 2016), reflecting on the history of how camels were initially imported to Australia for transportation then became feral with the introduction of locomotives, talks about data and technologies becoming feral, resulting in unintended consequences.

For our workshop, we intentionally left the definition of feral open and asked participants to present tools that they would consider feral and explain why. We also invited them to share stories about how they used these tools in their own practice. Participants presented a variety of tools they used, including card decks, experimental walks, gameplay guides, manuals, typologies, and metaphors, and suggested additional tools and projects they encountered and considered worth researching further.

Several tools took speculative design approaches. For example, Rachel Clarke introduced a Training Manual made for those wishing to join the fictional Ministry of Multispecies Communications, a participatory speculative workshop. The manual presents a near future scenario where all creatures have fled cities for safe refuge elsewhere. Invited participants perform as a team of secret government officials tasked with finding ways to make the environment better for the creatures to come back. The manual provides prompts and instructions for participating in the Ministry of Multispecies Communication, such as mask making activities and guided walks that can be organised as face-to-face or online events, using synchronous and asynchronous platforms such as WhatsApp (<https://www.whatsapp.com/>) and Slack (<https://slack.com/>). Lara Houston, Sara Heitlinger, Ruth

Catlow, and Alex Taylor presented The Algorithmic Food Justice Live Action Role Play Toolkit, developed to enable multispecies Live Action Role Plays (LARPs). The manual consists of an introduction, a guide to setting up a LARP, templates for the material and a series of scenarios to be used in the LARP. For her project Deep Phytocracy, Špela Petrič shared a toolkit consisting of cards instructing practitioners to embody different Anarchetypes – humorous and often absurd characters representing various real-world cultural values and approaches to plants.

Two projects presented at the workshop featured walks as their main resource. Kit Braybrooke and Emma O’Sullivan’s *Machine Ghosts* is a replicable model for a psychogeographic exploration in urban spaces. The tool explores the city as an algorithmic playground, unveiling the more-than-human encounters and histories that are typically overlooked in everyday life. Iryna Zamuruieva presented a methodology to conduct sensory walks focused on engaging with a place through smell, sight, touch & hearing that she co-developed in collaboration with community organisation Splce & ACC. In their toolkit, each sense has its own methodology composed of maps and guiding questions.

Leonardo Parra-Agudelo shared his use of a metaphor of “the sancocho” – a popular Colombian soup consisting of a broth and various ingredients that are placed on the table and then added to the broth by each person according to their preferences. Together with collaborators they are using ‘Sancocho’ as a conceptual platform to apply open, collaborative, and non-linear sentipensar (feel/thinking see Fals-Borda, 1980) - and acting - as something that can move beyond the human in various educational and design contexts, creating toolkits, urban plans, graphic novels and multispecies co-design methodologies.

Three main ways the participants used their tools are:

1. To foreground embodied, situated, and bottom-up ways of working with other-than-human, notably multispecies, entities, and issues that decentre human and human control;
2. To reappropriate creative processes in ways and for purposes different to the original intentions, and;
3. To accept, expect, enable and even encourage thoughts, feelings, and actions to develop in their own ways, beyond the creative practitioner’s (or anyone’s) control and social norms.

Reflecting on the ‘feralness’ of their work as a group allowed us to position creative practice in new ways; reflect on our engagement with issues of control and participation, and; the importance of creating and holding spaces for reimagining, dismantling, and reassembling alternative futures that are both critical and cautious of our own agendas. It reminds us to be attentive and responsive to things beyond human control, on-going, and open-ended. In this sense, *feral* provides a useful frame to help avoid binary thinking, and prioritize pluralism and uncertainty. These issues are crucial, especially when confronting the complex interrelations between socio-ecological issues and the role of creative practices (Dolejšová et al., 2021). There is an emerging orientation in the current discourse of transformative creative practice towards the More-than-Human (Forlano, 2017; Jaque et al., 2020; Choi & Galloway, 2021), anti-colonial (Escobar, 2018; Tsing et al., 2020) and anti-oppressive (Van Amstel et al., 2021), moving away from human-centric understanding and interaction with the world. We believe that the term *feral* helps expand, and at the same time complicate, these emerging orientations.

To expand this ongoing research we plan to develop other workshops centered on mapping more diverse tools and resources for transformative creative practice. These workshops will allow us to explore further how feralness can be animated in creative practices to enable the shared imagining of more-than-human futures, encourage actions toward socio-ecological transformations, and cultivate pluralism in meanings and feelings. Our aim with this work is to develop a more nuanced understanding of how transformational creative practices can take place in different social contexts and environments,

as the first humble step in supporting a change towards more inclusive, liveable, and regenerative futures.

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Design Fuel for the Neoliberal Fire

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University graphic design education and professional design organizations in the United States have generally avoided critical conversations regarding the field's emphasis on professionalization and entrepreneurialism. In this paper, I will discuss two related neoliberal nodes that have persisted and particularly intensified over the past decade: one, design's insistence on the social as a marketable passion project that escapes history and socio-political relations, and two, design's fixation on an entrepreneurial mindset that subsumes all leisure time into labor time. I will articulate the ways design education and professional design organizations in the United States have been ideologically complicit in these efforts and offer potential pedagogical interventions toward more deeply examining the socio-political contexts in which we study, labor, and live.

neoliberalism; design education; professionalization; labor

1. Introduction

Scholars outside of design have long critiqued the neoliberal university and its disciplinary consequences for students and faculty alike. At the center of these critiques is the institution's increased emphasis on professionalization and entrepreneurialism in service to "the power-concentration of capital" (Malik, 2015, p. 50) alongside increased precarity complemented by labor declarations we should "do what we love" and fault only ourselves when we do not (Tokumitsu, 2014). Design education and design organizations in the United States have generally sidestepped meaningful critical engagement with this ideological turn, instead indulging such institutional requests as offering design thinking curricula for budding entrepreneurs where diversity is a commodity and all community engagement is assumed to be beneficial. At the same time, students intensify the commodification of their own identities by cultivating their personal brand across networks like Instagram, and the flexible freelancer readily joins co-working spaces that celebrate "pseudo-horizontalism" (Raunig, 2015, p. 33) over collective work. In this paper, I will discuss two related neoliberal nodes that have persisted over the past decade: one,

design's insistence on the social as a *marketable* passion project that escapes history and socio-political relations, and two, design's fixation on an entrepreneurial mindset that subsumes all leisure time into labor time. Finally, I will offer potential pedagogical interventions toward more deeply examining the socio-political contexts in which we study, labor, and live.

2. An Alibi for Complexity

The design field is fraught with individualized, color-blind, do-good rhetoric that lacks specificity on what “good” means or for whom (Nasadowski, 2015). Select projects within this territory include:

- a collaboration between the local police department and a university design class to rebrand the police's relationship to the community (Sarasota Police Department, 2014; Jones, 2014)—with little to no evidence of discussions of race or acts of policing playing a role in those contentious relationships;
- award-winning community projects where designers travel to impoverished towns to create “neutral” spaces for conversation (Edge, 2010)—scrubbing clean class antagonism necessary when articulating the roots of poverty; and
- the viral content marketing agency (Rob Bliss Creative, 2014) that created a video campaign against misogynist street harassment—while simultaneously villainizing people of color.

Design scholar Shana Agid (2011) observed the “social” in social design discourse is typically disconnected from an analysis of political structures and relationships of power (p. 190). Agid has also problematized the commonsense notion that civic engagement or community partnerships are de facto beneficial to the community. So entrenched in this commonsense, few design educators and practitioners interrogate the foundational logics that shape conditions of violence. Shallow design engagement with the “social,” then, becomes reformism that recasts the same violence it purports to remedy (Nasadowski, 2015; Williams, 2019).

Despite the increased interest for design students to make “socially aware” work in recent years, designers and educators have often skipped along the surface, refusing to see the web of power relations that feminist sociologist Dorothy Smith (1993) elegantly characterized as relations of ruling. Conceiving of power in this way moves away from a binary approach (ruler vs. ruled) and better reflects the intricacies of how we simultaneously dominate and are dominated. While clarity and succinctness can be valuable, asking students to engage in social issues without providing them necessary historical and political context encourages designers to operate under the guise of a vague moral goodness over that of explicit antagonism. It is to comply with what Chandra Talpade Mohanty (2003) has called “harmonious, empty pluralism” (p. 193)—a hollow engagement with the social that escapes history and socio-political relations. It encourages us to ask, following Agid (2011), what do we do when we are designing within a system—or *for* a system—that we do not want to exist? To engage directly, critically, and rigorously with these necessary questions takes time and commitment.

3. The Designer as Entrepreneur

AIGA, the professional association for design in the United States, prides itself on being “the profession's oldest and largest professional membership organization for design” with over 15,000 members (“Our Story,” n.d.). In 2021, they published *Design POV: An In-Depth Look at the Design Industry Now*. Introducing the report on their website, they write: “This research is about the future of our industry. It's about leadership and it's more than our profession but how design interfaces with the world. Our

mission is about bringing design to the world. We are celebrating the diversity of our industry and the social impact each and every designer makes to society” (“Design Research & Insights,” n.d.).

With input via surveys, interviews, and a triangulation of data from various other sources, the report includes more than 5,000 participants from 100 countries. Beginning with defining what it means to be a designer, the executive summary notes it asked for feedback through three lenses: Skillset, Mindset, and “Impactset,” defined as a “force for change, progress, and good” (AIGA, 2021, p. 9) with no context here of what change/progress/good might represent. In the section that discusses “advancing diversity, equity, inclusion, and accessibility,” an excerpted quote from art director Carlos Estrada reads: “How do we make people feel welcome and how do we get their perspective; because it is valuable and it will make us more creative, it can help a company be more profitable” (p. 11). Directly following this section is “Market Intelligence,” where the first line reads: “Every designer is a potential business” (p. 15). The three key highlights AIGA summarizes on this page include: “1. Contrary to many other professions, your professional craft has an intrinsic value. 2. Develop your entrepreneurial spirit. 3. Celebrate that every designer is a potential business by proactively learning about business.”

What AIGA’s report makes clear is that design and designers are poised to be neoliberal commodities. Neoliberalism requires storytelling boasting good-for-business multiculturalism; a life of flexibility and freedom; and the exceptionally intrinsic value of creativity, entrepreneurialism, and innovation. Pedagogically and culturally, one way creative fields rationalize an understanding of the self as a commodity is through the “Do What You Love” mantra and all its variations: carefully lettered across Pinterest boards, tagged on Instagram (over 9.1 million times at the time of writing; 2021), built into company missions and painted across *Dwell*-worthy interiors of the urban co-working space near you (WeWork, 2013), and phrased and rephrased in design blogs (Porter, 2015). In the university, students flock to graphic design programs with hopes of transforming their love of art into a lucrative career. When they get there, they are bombarded with calls for unpaid labor dressed up as opportunities to support good causes or causes good for their careers. While mainstream resistance to these calls has gained some traction in the past decade (“Articles About Spec Work,” n.d.; Hische, 2011; Skidmore, 2015; Woods, 2016), the requests continue, and thus, educators must also continue demystifying the do-what-you-love mindset that paves the way for exploitation. Miya Tokumitsu (2014) further analyzed this sentiment: “Work becomes divided into two opposing classes: that which is lovable (creative, intellectual, socially prestigious) and that which is not (repetitive, unintellectual, undistinguished).” Workers who love what they do are the ideal neoliberal subjects, encouraged by an entrepreneurial ethos with little regard for the cost or the conditions of their love.

4. Pedagogical Interventions

4.1. Design and Power

Since 2015, I have been teaching variations of a course now entitled *Politics and Ethics of Design*. I first conceptualized this course as a direct response to a visible increase of shallow social design efforts (i.e., projects disconnected from an analysis of power) I saw increasing in frequency at the university level. I begin our classroom discussions with Ida B. Wells and the 1893 World Fair. This exposition had an immense communicative impact for the country with one in four Americans visiting it before it closed (Treagus, 146). Three years prior, President Benjamin Harrison appointed representatives of the states to help celebrate the four-hundredth anniversary of Columbus arriving in America. As a result, 208 members represented 60 million people on the Board of National Commissioners for the exposition. More than one-eighth of the American population was Black, a population (unsurprisingly) not represented at the Fair, earning it the nickname “the white American’s World’s Fair” by Black

newspapers at the time. In response to this exclusion, Wells sought fundraising and contributions for a pamphlet aimed toward educating international travelers on this affront (Paddon & Turner, 1995).

Wells' (1893) edited pamphlet, *The Reason Why the Colored American is Not in the World's Columbian Exposition*, presented a compelling study with contributions from Frederick Douglass, educator Irvine Garland Penn, and lawyer and newspaper publisher Ferdinand Lee Barnett. They asserted much of America's innovations and progress in education, art, science, commerce, and more that were included in the World's Fair existed thanks to Black labor, both directly and indirectly. The contributors also made clear that the 13th amendment most certainly did not offer freedom and acceptance to everyone. In the introduction, Douglass wrote: "The life of a Negro slave was never held sacred in the estimation of the people of that section of the country in the time of slavery, and the abolition of slavery against the will of the enslavers did not render a slave's life more sacred" (p. 6). Wells repeated slavery's lasting effects in the chapter titled "Class Legislation": "The Civil War of 1861–5 ended slavery. It left us free, but it also left us homeless, penniless, ignorant, nameless and friendless" (p. 13). These sentiments framed a broad context for the rest of the pamphlet, furnishing a well-rounded view of multiple, persistent mechanisms that uphold racist ideologies and racist actions. In the chapter "The Convict Lease System," readers learn those states claiming to be too poor to maintain prisons (including Tennessee, where I am currently teaching) would just lease out convicts to the railway or mines, for example, so the state would be paid the worker's share instead: a convenient incentive (p. 19). Wells pointed out 90% of those in prison were Black, to which she partly attributed to lack of influential friends or the financial means to employ lawyers to help avoid long terms of imprisonment for petty crimes. Additionally, she wrote, "the judges, juries and other officials of the courts are white men who share these prejudices. They also make the laws" (p. 20). Within the "Lynch Law" chapter, Wells reiterated this idea in the context of increasing mob violence under the legal jurisdiction of white Americans (pp. 25–26). These are the people that made accusations, enacted the violence, and then controlled the media through their ownership of telegraph wires and newspapers. Overall, this writing speaks to institutionalized racism that supports a racial hierarchy, from the mobs to the courts to the media, all sharing the same white supremacist beliefs. This provides a critical framework for our class before we can talk about how and why W. E. B. Du Bois entered this scene.

In 1900, the Black lawyer Thomas Calloway worked with the expo's American delegation and invited Du Bois to oversee an exhibition on Black life in the upcoming Paris exhibition. Du Bois, in collaboration with students he was working with at Atlanta University (the first HBCU in the South), prepared for display 60 full-color hand-drawn charts, 200 books by Black authors, and hundreds of photographs and maps. This work illustrated that it was historically constituted inequalities (such as those laid out in Wells' pamphlet), not innate moral failings, that limited Black Americans in achieving social equality. The crafted visuals helped to debunk the idea of a single Black identity and pushed against racist caricatures. This data visualization series, representing the immense progress of Black America since the abolition of slavery (via growth in literacy, land ownership, population, business, and more) has resurfaced in popularity every so often the past century, accompanied by varying degrees of context. A number of new books and articles (Mansky, 2018; Battle-Baptiste & Rusert [Eds.], 2018; Hsu, 2019; Rothenstein [Ed.], 2019) have created another recent surge of recognition, including sociologist Aldon Morris (2018) emphasizing the lasting impact of Du Bois' visual work for communicating sociological knowledge to a wider public: "Du Bois was acutely aware that the packaging of the exhibit was as important as the data depicted" (p. 36). The visualizations were bold and colorful, complex and well-crafted, and persuasive. Media studies scholar Hua Hsu (2019) has added: "There's a surprising amount of open space, as though viewers are being asked to fill in the history and context that hasn't been spelled out for them."

I begin the class with these conversations for three primary reasons. One, I want to emphasize to students design here comes as secondary to an argument. Two, this history grounds the importance of structural thinking by using Wells' pamphlet as a critical example of articulating the social, cultural, legal, economic, and political implications of an institution. This is the content of the lives Du Bois and his team visually represented. Three, following the same logic of Wells, we can talk about why some work has not seen broader representation in traditional design education. As designer Silas Munro (2018) noted, these charts predated and existed outside of modern canons of visualization, like the modular design elements of the Bauhaus or Edward Tufte's charts, which have typically received significantly greater representation in design history (pp. 47–49).

4.2. Designer as Laborer

Next, I want to share one way I have asked senior graphic design students to closely examine the designer as a laborer and neoliberal subject who is thus open to exploitation. In their last semester, as they prepare their thesis exhibition and put the finishing touches on their portfolios, we read a number of critical essays, including an examination of co-working spaces that sell a lifestyle where work and play are virtually indistinguishable (Aronoff, 2017); an exploration into the relationship of crowd-funding platforms—an entrepreneurial favorite—to community, capitalism, and wage labor (MacPhee, 2012); and Tokumitsu's (2014) critique of conflating self-love and work. Additionally, we read excerpts from a manual developed by the U.K.-based Precarious Workers' Brigade (2017), or PWB, titled *Training for Exploitation? Politicising Employability & Reclaiming Education*. With Tokumitsu, we locate the relationship between our shared neoliberal academic context (e.g., the decrease in state funding of education, the rise of precarious faculty in U.S. institutions, and the rise of tuition and student debt) with that of the gig economy and labor practices in the design field at large (e.g., unpaid and low-paid internships, the rise of co-working spaces where members bring their own equipment, interviews that emphasize the search for "a good cultural fit," and the expectation—but high financial cost—to submit work for design awards). If "every designer is a potential business," as the AIGA report (2021) summarized, then I want students to explore what the consequences are of tying our identity and self-worth to our professional success.

The manual from PWB argued higher ed's emphasis on employability pushes students to reproduce and reinforce themselves as neoliberal subjects subordinate to the wants and needs of capitalism, which amplifies both emotional and economic pressures that deserve attention. They wrote: "By teaching students how to identify what employers want and then how to become it, employability normalises certain subordinating attitudes towards work and the self, promoting free labour and individualistic behaviour, which discourages collective practice and solidarity" (p. 5). PWB helps readers draw distinctions between volunteering vs. career volunteering. For example, students might seek out volunteer opportunities for causes and struggles in which they are invested, while simultaneously questioning *career* volunteering when the purpose is to advance one's career and working for free is perhaps the only way to get a foot in the door. PWB points out the latter scenario may also be an opportunity for employers to cut existing staff and wages (p. 14), which is helpful to discuss with students how the effects of their personal choices do not stop with themselves. Workshop exercises in their manual ask students to take on both practical and critical thought exercises relevant to their lives in school and beyond, like mapping their weekly paid vs. unpaid work (including domestic labor) or deconstructing neoliberal rhetoric in job ads that demand one's passion, for example, to potentially grease the wheels for lower pay. In teaching about exploitative labor practices, my intention is not to dishearten students by locating these instances in their own lives. While our respective privilege subjects us to exploitation unevenly, articulating what students are already experiencing in ways that shift the blame *away* from denigrating their self-worth can instead be validating. Instead of promoting

an idealized version of what a designer's success looks like, I encourage each student to articulate their own values and prioritize their needs while also holding together the political, economic, and social effects of their decisions. I aim to alleviate the pressure from students that they will find a "pure" way to participate in design or that their jobs and the market will or *should* deliver them constant fulfillment. I ask students to identify alternative ways of practicing design or working with each other, moving from collaboration that focuses on content generation in service of capitalism to forging relationships of solidarity that intentionally construct thoughtful and equitable working relations.

5. Conclusion

Design education in the United States has been complicit in multiple efforts to fuel the neoliberal university and workforce. Over this past decade in particular, design educators and professional design organizations have helped to amplify and commodify thin commitments to passion projects framed as social engagement, omitting the study of socio-political histories and contemporary relations of power. Additionally, bolstered by technology that normalizes constant connection and presentation of the self, one can see an increase in design's insistence on collapsing the individual with the business, further blurring any lines between leisure and labor while promoting individual value over collective solidarity. I hope these brief glimpses to conversations in the classroom offer ways design educators might encourage students to imagine new futures for living, laboring, and relating—both inside and outside the academy.

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Insurgent Design Coalitions: The history of the Design & Oppression network

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Design research is getting interested in social movements in recent years. Organizing tactics like coalition-building have been taken from civil rights movements and turned into operative concepts such as designing coalitions that point towards converging interests. As such, this concept cannot support social movements, which are not formed by common interests, but by pressing social needs ignored in official and everyday politics. This advances further the revision of the designing coalition concept based on feminist literature and on the authors' experience in weaving the Design & Oppression Network in Brazil. This network was formed in 2020 by design professors, students, and professionals from all over Brazil, as well as from other countries. From its inception, the network was concerned with the Latin-American reality — colonized, culturally invaded, underdeveloped, and oppressed in various ways by the Global North. The network approaches design as a pedagogical and critical process so that the production of design space becomes an opportunity for listening, reflection, dispute, synthesis, mutual care, and insurgence actions against all forms of oppression. From this experience, we propose the alternative concept of insurgent design coalitions to deepen design engagements with social movements.

critical pedagogy; feminism; care; social movements

1. Introduction

Design research is getting interested in social movements and activism in recent years (Björgvinsson et al., 2012; Fuad-Luke, 2013), even if through mild and depoliticizing engagements such as social innovation (Lorne, 2020; Jégou & Manzini, 2008). Several theories and practices have been adapted from social movements to justify or instrumentalize design practices. A case in point is coalition-building, an organizing tactic taken from social movements and turned into a strategy to build creative communities (Manzini, 2015; 2019). The lack of historical references to social movements risks depoliticizing these organizational forms among designers, so they do not understand them once they join social movements. They might not even join them, thinking that designing coalitions is a social movement in itself.

By looking at contemporary social movements theory, particularly the feminist movement, this paper aims to deepen designing coalitions' conceptual revision (Eleutério & Van Amstel, 2020), as an example of a more productive engagement with social movements in design research. Social movements have historically developed or adopted coalition building to overcome specific situations that do not allow for democratic manifestations into small groups. These situations require forming large groups that can stand intense oppression until the democratic possibility reestablishes itself. In social movements, it is not possible to understand coalition-building without understanding the oppression that motivates their insurgence in the first place.

This paper will refer to our shared story of the founding and weaving the Design & Oppression network in Brazil to revise the concept of designing coalitions and exemplify productive engagements with social movements in design. Firstly, we will present the concept of designing coalitions as found in the literature on Design for Social Innovation and our shortcomings in this appropriation. Then, we turn to our story and describe the network's critical pedagogy approach inspired by Paulo Freire, bell hooks, Augusto Boal, and other authors who stressed the importance of fighting together against all forms of oppression instead of just focusing on one at a time or one in each front. We will describe the repercussions of the network in Brazilian design education, research, and practice. From reflecting on this story, we will finally define insurgent design coalitions as a critical alternative to designing coalitions. With this paper, we expect to foster further engagements between design and social movements.

2. Designing coalitions

According to Manzini (2015, p.50), designing coalitions constitute "those result-oriented networks that coordinate different actors within wider sociotechnical networks (individual and collective, of design experts and nonexperts) that share a vision on what to do and how, and decide to do it together". This conceptualization suggests they are a new organizational form that originates from the widespread availability of digital networks, appropriated by a group of diverse people to deal with emerging matters of concern (Manzini, 2015; DiSalvo et al., 2014; Latour, 2004), such as climate change or food security. These people do not need to be design experts to join designing coalitions, but they may collaborate with design experts to help set up a diffuse design activity that supports non-designers in design activities (Manzini, 2015; 2019).

The diffusionist theory of designing coalitions does not connect to social movements that formed

successful coalitions or alliances before widespread digital networks. This lack of historical reference risks disconnecting the historical context of this organizational form as designing for social innovation literature repurposes it to merely describe what happens in a codesign project (Eleutério & Van Amstel, 2020). Instead of pointing to the temporary union of different struggles, as done by social movements, designing coalitions points towards converging interests. The contradiction of oppression is ignored (Freire, 1996) or reduced to a problem of the Other, prone to be solved by technical means.

Despite being critical to the neoliberal discourse, the literature on Design for Social Innovation does not avoid neoliberal practices like technological solutionism (Morozov, 2013) and community entrepreneurship (Lorne, 2020). The neoliberal phase of capitalism, which emerged by the 1980s, led to a redefinition of the political domain and its participants through a minimalist conception of State and democracy (Harvey, 2007; Laclau and Mouffe, 1985). This minimalism has deepened inequalities and made it challenging to raise political confrontations that require the identification of the adversary to be fought, blurred by the melancholic "There Is No Alternative" motto. The apparently rational arguments of neoliberalism mislead social movements to fight abstract issues such as global warming and poverty without demanding and countering the concrete actors who are causing or avoiding these issues.

While reflecting critically on that influence, social movements responded to this reality with new organizational forms that included or reunited a plurality of political subjects that brought together different forms of inequality and exclusion, broadening the previous understanding of the struggles. In the face of neoliberalism, contemporary social movements must build coalition strategies between different political subjects, not necessarily centered on a specific agenda like capitalist worker exploitation, but understanding the subjective complexity that shapes each collective political subject and their commonalities.

Laclau and Mouffe (1985) analyzed contemporary social movements' historical continuity and discontinuity in the 20th century. On the one hand, social movements' struggles advance the 19th-century agenda centered on class since they maintain the egalitarian imaginary of the democratic revolution. On the other hand, they are discontinuous to that agenda as they expand the democratic revolution while politicizing other forms of subordination such as race, gender, territory, and disability. Since then, social movements have suffered from fragmentation. Coalition-building emerged as a tactic to mend the disadvantages of diversifying the political agenda. Coalition-building has become a space of articulation where specific flags of each allied social movement can be recognized by other social movements, even if for joining a temporary joint action.

From this rich experience of social movements, we cannot conceive coalitions as "result-oriented" networks (Manzini, 2015), even if eventually the political subjects have indeed common matters of concern (DiSalvo et al., 2014). As Silva e Camurça (2013, p. 9) teach us, "it is in the process of social struggles that we formulate a situation as problematic, we denounce how unfair this problem is, we demonstrate that this problem is not a natural situation, it is something produced by social relations, we provoke indignation towards the problem, and we gather the strength of this indignation of people to build or support the political struggle to face the problem." The problems addressed by social movements are not just matters of concern; they are matters of fact. Oppression is an objective problem that is embedded into societal structures and manifested through various forms of design. It is not possible to fight and overcome oppression on the subjective side of the problem. As Paulo Freire (1996, p. 7) puts it, "liberation is not a gift, not a self-achievement, but a mutual process."

The feminist movement has been quite transgressive and creative in making alliances among different feminisms to overcome subjectivisms (Lima, 2021; Gago, 2020). Feminist theories offer an alternative ontological principle that turns vulnerability into a commitment for relating and designing coalitions through the concept of care (Eleutério & Van Amstel, 2020). Women coalesce not because they have shared matters of concern, but because they have shared matters of care (Puig de la Bellacasa, 2017), in other words, because they care for each other in the face of intense oppression, even if having different concerns, demands, and political strategies for dealing with sexism.

In the feminist movement, caregiving is not a feminine attribute, as some sexist readings might conclude. Instead, caregiving is a feminist ethic (Lima, 2021; Kuhnen, 2014), part of a political identity built on the articulatory practices of the movement itself. Understanding caregiving as a feminist ethic may help design research distance itself from the understanding that women care because it is their nature to care. It is an essentialist understanding of the social function of women-delegated caregiving, particularly impoverished and racialized women. Understanding care as an ethical practice requires taking it as a responsibility for all members of society, as a necessary part of social relations, and not as an altruist action. Understanding care in that way does not push away the conflicts inherent to political deliberation and agonism.

In the feminist movement, conflict is presumed to happen and stimulated as a way of dealing with our inequalities (Lima, 2021; Gago, 2020). If we understand the ethics of care by looking at our comrades' experiences, these inequalities ask for consideration. Care is not a way of easing out conflicts but a way of opening up to think about the inequalities involved in these conflicts. Inequalities outside the articulatory spaces (of society in general) are reproduced in the spaces of alliances, so feminists understand they need to overcome the dominant understanding of the masculinized political organization in these spaces, which denies one's responsibility to others. Designing coalitions is prone to reproduce the contradictions of activity into contradictions of space, much like any designing activity whatsoever (Van Amstel et al., 2016).

The feeling of solidarity among different people has been a vital bond nurtured by feminists and other social movements to deal with contradictions inside the movement. Solidarity is a collective political action that bonds together people coming from different personal experiences and social movements and helps them fight a common enemy, but more importantly, in relating to each other in solidarity, people and movements can strengthen their struggle and their subjectivity (Serpa & Batista, 2021). Instead of letting contradictions fragment the movement, solidarity weaves out emotional bonds across the chasms.

We believe that designing coalitions must be further revised based on the feeling of solidarity and the practices of care to provide productive engagements with social movements. We will revise this concept based on what we have done in Brazil to form a coalition of designers that coalesce with each other and with social movements. With the following story, we seek to include matters of care without eliminating conflict and matters of concern from the political arena.

3. The Design & Oppression coalition

If it is not possible to understand coalition-building without understanding oppression, it is also not possible to understand design without referring to everyday politics (Manzini, 2019), which in the case of Brazil, is fraught with oppression. Under the nefarious specter that followed the removal of President

Dilma Rousseff by a parliamentary coup in 2016, Brazilians elected an authoritarian, violent, and anti-human-rights government in 2018. This government discharged criticism over public education while praising private education.

The COVID-19 pandemic broke out just when the tension between public universities and the Ministry of Education reached its peak. The minister tried to force a rapid transition to remote education, but the learning infrastructure was not the same across the country and families — many students did not have

internet access at home, a personal computer, or a calm space to study. The federal government's inability to deal with this shortcoming followed the same pattern of managing the health infrastructure crisis (Pelanda & Van Amstel, 2021). The sanitary impossibility of mobilizing street protests did not allow the formation of a popular front against the government, and institutional politics failed the population by pursuing their interests while making bureaucratic agreements.

In this context of intensified social contradictions, the Design & Oppression network insurged (Serpa et al., in press). The insurgents were design professors, students, and professionals from all over Brazil and other countries. From its inception, the network was concerned with the Latin-American reality: colonized, culturally invaded, underdeveloped, and oppressed in various ways by the exploitative bourgeoisie, the male patriarchy, and the colonialist Global North.

The network's objective is to establish bonds of solidarity between all the struggles against oppression, taking design as a tool, space, or issue. This network extends the Latin American critical thinking tradition from Education, Arts, and Sociology to Design. In addition to critically training designers, the network also promotes concrete and continuous social actions that aim at an engaged praxis with social movements.

4. Pedagogical approach of the Design & Oppression network

Amidst the situation of severe political crisis and discredit with public education and being very aware of social movements' historical commitment to change, we embraced the contradictions of design activity as a means to rethink ways of being a designer in the world and relating to other people and beings in a politicized and emancipatory way, without letting the designerly way to go (Nelson & Stolterman, 2014).

We started the network activities by holding a weekly study group meeting, open for anyone to join. The network weavers periodically hold live broadcasts on Youtube, participate in professional events and academic conferences (like this one), and promote partnerships and actions with other organizations. Figure 1 features ads from some of our educational actions: Youtube broadcasts on the possible relationships between design and the teachings of Paulo Freire, bell hooks, and Augusto Boal. Figure 1 also includes an ad from the Designs of the Oppressed online international course that systematized what we have learned so far.



Figure 1 – Educacional actions promoted by the Design & Oppression network.

We walked together on this journey with utopian visions, hand in hand with Paulo Freire (1996), to whom the feeling of hope and the act of hoping are recurrent sources of comfort whenever despair takes over the body. In tune with his critical pedagogy, dialogue is at the heart of our praxis. Our meetings are an open space where everyone is encouraged to speak, regardless of their origin or academic background, because we agree with Freire that everyone has something to learn and teach. This dialogical approach deconstructs the cultural invasion that we suffered (and still suffer) in our design practices and thoughts (Angelon and Van Amstel, 2021), cutting the umbilical cord that links design with capitalism.

We decided to follow other comrades in our march to liberate design from oppression: Frantz Fanon, bell hooks, Alfredo Gutiérrez Borrero, Lesley-Ann Noel, and Augusto Boal. They are all Global South authors who suffered from oppression in their lives and expressed solidarity to those who suffered even more. They fought for the liberation of the oppressed with what they had available around on their handiness (Gonzatto and Merkle, 2016). A commonality among them is the solidarity care for the Self and the Other, respecting their ways of being while envisioning their becoming-more potential (Freire, 1996).

While we read and discussed these authors, we cared for each other. Often, we shared personal stories, as bell hooks inspired us to do (hooks, 2014), and we ended up feeling sad, angry, abashed or fluttered.

These feelings sparked us to offer mutual help and understanding under the limitations of each positionality. To extend caregiving across the week, we created a WhatsApp group for the network weavers. Many backstage stories were shared, such as why a compicator would not be available to join the weekly meetings due to mental health, grief, unemployment, work harassment, political persecution, and other conditions intensified or generated by the COVID-19 pandemics and the Brazilian political crisis. We offered our condolences, kind words, friendly emojis, and comrade stickers in the group or private messages. Often, we felt like the network was a safety net that bounced us from falling to standing, much like those used by circus acrobats. The limitations of chatting asynchronously for caregiving led us to create a ritual after the weekly meeting, the critical beer (*cerveja crítica*), a post-meeting session restricted to compicators, the network weavers responsible for hosting and complicating the debates. We availed our complicating activity in this ritual, divided some tasks, and talked about our personal life changes as if we were meeting in a virtual bar.

From these readings, discussions, and caregiving, our foundations for acting together in concert were greatly expanded beyond what we could get from our culturally invaded design praxis (Angelon and Van Amstel, 2021). Our inspiring authors did not ignore what had previously been produced by the metropolises. On the contrary: they critically absorbed metropolitan knowledge, putting it in perspective. As Fanon argues (1963, p. 150), "In an underdeveloped country, an authentic national middle class ought to consider as its bounden duty to betray the calling fate has marked out for it, and to put itself to school with the people: in other words to put at the people's disposal the intellectual and technical capital that it has snatched when going through the colonial universities".

After reading bell hooks (2014), we realized we were nurturing learning communities in multiple localities. We tried to understand the specific needs, processes, and consequences of our projects in different places. In that sense, we relied a lot on her feminist critical pedagogy to produce design spaces where we could understand ourselves as a whole, considering our bodies, places, and handiness. This process led us to experiment with activism, theater of the oppressed, music, and other forms of expression (hooks, 1984).

Through our readings and accumulated personal experiences, we concluded that participation in design (Silva, 2021; Van Amstel, 2009) is, by now, the primary means of tackling oppression. However, participation is by itself a term that can become an empty signifier (Laclau, 2013). Participation can be quite demagogic when people are consulted but cannot join the decision-making or when participation lacks accountability. In extreme cases, pseudo-participation (Palacin et al., 2020) can be a mask for validating violent processes that do not promote substantive but performative participation.

The fight against oppression pushed us to think about participation, assuming the necessary conditions for it to occur, and critically facing its intrinsic political nature. Politicizing participation expands the design space beyond capitalist products, beyond including users to improve market offerings. Participation must engage participants with radical alterity, with the possibility of transforming the Self by incorporating the Other (Van Amstel & Gonzatto, 2020; Szaniecki, 2019). In this way, participation becomes a possibility for listening, reflecting, criticizing, disputing, and producing collective freedom and liberation (Van Amstel and Gonzatto, 2016).

In this liberating participatory design perspective, the design space becomes a space for listening, reflection, dispute, and synthesis, in a word, a controversial design space (Van Amstel et al., 2021). As expressed in feminist theory, in a controversial design space, oppression is recognized as a structural

social relation that manifests within the social movements and requires constant dialogue to avoid jeopardizing the struggle. Both Paulo Freire and bell hooks wrote about the need to include controversies in critical pedagogy dialogues (hooks, 2014; Freire, 1996). These dialogues should eventually refer to the conditions for dialogue as something to be designed and redesigned accordingly.

5. Participatory metadesign in the network

When reflecting on the way we produced design pace collectively (Van Amstel et al. 2006), we realized that participation in design must also extend to metadesign (Vassão, 2010; Ehn, 2008). The network is based primarily on Discord, a platform created to chat via audio and text while playing online games. In a collective effort, we meta-designed this gamer tool to the network's pedagogical and organizational interests and our nation. Discord offered lower latency than Google Meet, as well as allowing interaction across multiple simultaneous text channels. This multiplicity of channels was essential for practicing the principles desired by the group: hearing diverse voices, welcoming disagreement, stimulating several means of expressing ideas and feelings, and complicating issues. Our server in Discord (Figure 2) became a space for meeting, training, and systematizing knowledge through our situated production, with different text and audio channels for organizing actions and content.

We were not merely interested in adapting face-to-face interactions to the digital realm. We proposed to contribute with new forms of engagement in teaching-learning processes, rescuing dialogical principles and expanding the possibilities of building emancipatory relationships. The fact that the network is weaved with digital materials allows people from different parts of Brazil (and the world) interested in designing otherwise (Calderon Salazar & Huybrechts, 2020) to meet and take action.

Currently, the Design & Oppression network server at Discord forms, in total, a community of 560+ enrolled members, spread all over Brazil and some Latin American countries like Argentina and Colombia. These members are people who, at some point, entered the server and read the text channel logs asynchronously. Continuous participation in synchronous events is much smaller, ranging from 15 to 90 participants each meeting. On the Discord server, we have a text channel called #apresente-se, where people voluntarily reveal their interests in being part of the network, also identifying where they are from, their relationship with Design, and expectations regarding that space.

Initially, we noticed that audio participation was disputed, especially when meetings had many participants (30+). Therefore, in the first meetings, we built some formal mechanisms for the distribution of speech turns to avoid only a few people dominating the debate, undermining our diversity of voices principle. We created a text channel called #inscricao-de-fala, in which each participant had to post an emoji to request the speech. Then, when they started speaking, a time-keeping robot appeared in this channel. Most participants never used Discord before and were used to Google Meet and other speech-based conferencing systems.

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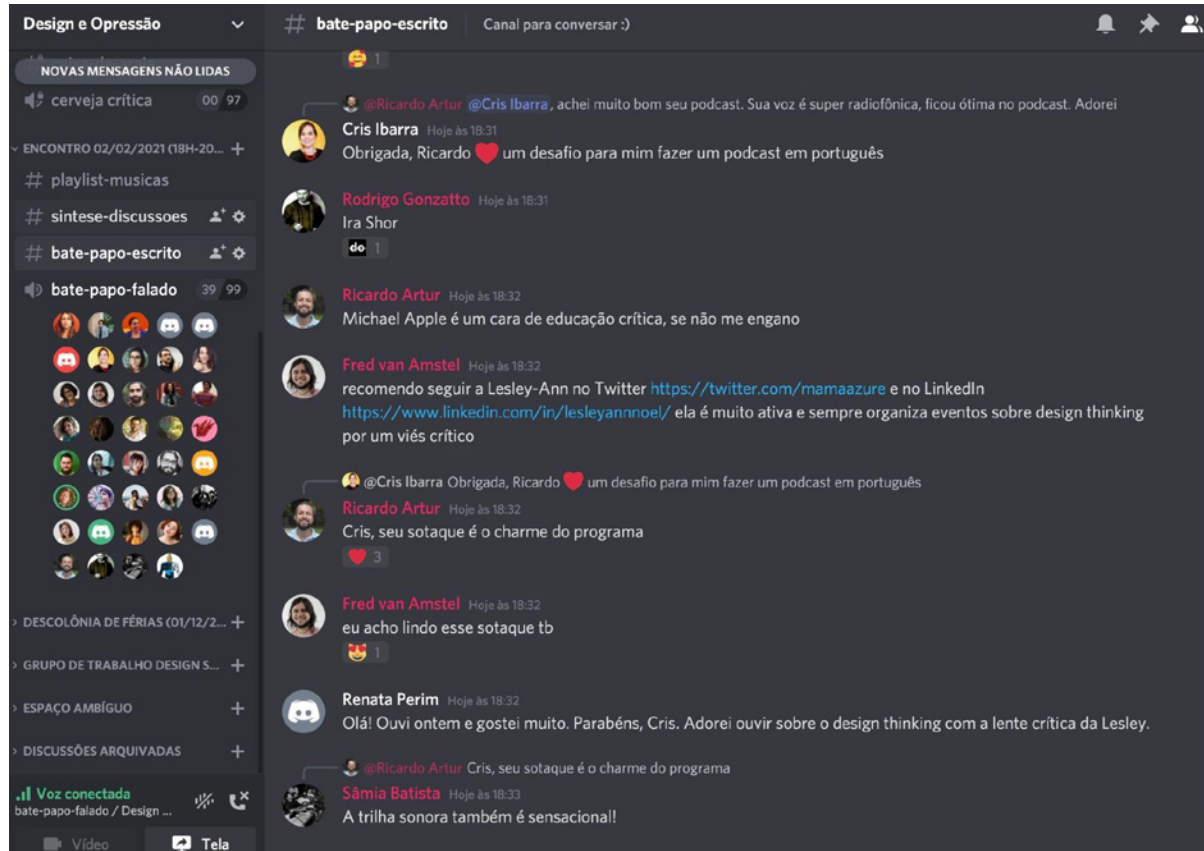


Figure 2: The Design & Oppression Discord server during a weekly meeting, with the audio channel on the left and a text channel on the right side of the screen.

As the months went by, the meeting participants began using text channels with more intensity, complementing and expanding the topics discussed in audio and, eventually, generating parallel lines of inquiry. Sometimes, multiple messages were posted in multiple text channels, making it quite impossible for a single person to follow what was going on, similar to the ancient mIRC chat experience. Instead of recentering the debate, we kept adding new text channels for such chaotic interactions. Participants could post text with copy and pasted pictures, emojis, and animated GIFs within text channels.

Initially, we thought that turning on the webcam could make the interaction more personal during the meetings, but we refrained from doing that. Having only one participant with the camera open, we discovered that those interacting through precarious connections suffered delays and lags. The Brazilian internet infrastructure was under heavy load due to the work-from-home pandemic mitigation policy. In addition to that, we discovered that opening up the camera in a two-hour meeting added extra physical fatigue from looking good at the camera. While interacting via audio, we did not need to wear anything in particular for the meeting; and we could change posture and move freely while talking or typing. Focusing on audio and text interactions prevented us from emphasizing inequalities related to camera definition, internet connection, home furnishing, and body identity markers that become apparent when the camera is on.

However, even if we wanted to emphasize equality, the tool had intrinsic biases that stimulated configuring different user roles, each with a different use power. Unlike Google Meet, Discord offers the possibility of defining roles and privileges. Initially, we were not interested in concentrating powers, and we did not use this feature. Everybody could do everything available on the server. However, once the number of participants grew to hundreds, we became concerned that newcomers could destroy what was constructed and end up oppressing other people in a space that is supposed to be anti-oppressive. While reflecting on this conundrum, we created a user role called complicators — the opposite of facilitators — for those who would act as articulators of the debate. This position would be responsible for complicating the discussion, more like the joker in Theater of the Oppressed (Boal, 2000) than of the facilitator in design thinking (Mosely et al., 2018).

These design decisions were taken in a democratic and collective process, mainly by the end of our weekly meetings. A text channel (#votacoes) took significant decisions using emoji-voting, including the readings for upcoming weeks. There is also the #metadesign channel for any design suggestion. All organizational and network structuring issues described in the previous section were debated in groups and agreed upon, with some eventual dissent.

6. Repercussions of the Design & Oppression network

The Design & Oppression network stems from the Brazilian university's research-teaching-extension triad. In all educational institutions to which we are linked (UTFPR, PUCPR, ESDI/UERJ, UFRJ), students engaged in network activities to address issues neglected or ignored by their study curricula. The repercussions are manifold.

At Federal Technological University of Paraná (UTFPR), a new study group discussed the politicizing design with Paulo Freire's ideas. From this group, six undergraduate research projects that link Paulo Freire to design emerged. There were also a dozen of final works that, directly or indirectly, had an orientation towards more engaged practices that question the colonialist perspective of design. The "Design for People: Laboratory of Design and Social Innovation" course within the Bachelor of Design incorporated dialogical practices from the Design & Oppression network, including several Discord configuration schemes. The network motivated opening the Laboratory of Design against Oppression (LADO, which means "side" in Portuguese), an extension project built to, among other things, support the network. LADO is an open and horizontal space focused on critical education, scientific research, and transformative action through collaboration between teachers, students, and oppressed communities.

At Superior School of Industrial Design of Rio de Janeiro State University (ESDI/UERJ), the extension project "Praxicracy: design, collaboration, and autonomy" was linked to the Design & Oppression network as a means to extend its social movements' reach. The university awarded an extension grant to this project thanks to the results obtained in 2020 through this partnership.

At Federal University of Rio de Janeiro (UFRJ), an elective project course called "Design and Politics" was offered in 2020 to critically address political issues in design. The syllabus of this course has several references to the Design & Oppression network activities and materials. So far, the subject has been taught three times, with the participation of 100+ students. In this and other courses, pedagogical practices inspired by the Design & Oppression network are also being carried out, including Discord as an interaction platform.

In addition to organizing internal debates within the network and promoting teaching, research, and

extension actions in the aforementioned educational institutions, the weavers of the Design & Oppression network participate in external debates at academic and professional events and conferences. We position ourselves from a critical and emancipatory agenda on these occasions, articulating different themes and interests in design.

In 2020, the network organized, in partnership with the Sentipensantes group (UFPE), the "Fogo no Entremeios 2020 workshop", in which participants had to think of words from professional jargon and Design practices that they would like to "burn." Also, the network organized a Forum Theater play on the platform and precarious work at the GFAUD-USP academic week, invited by young Design students to think about the dystopian future of their profession while considering the dystopian present other professions (Figure 3). The main plot consisted of an Artificial Intelligence that claimed to design automatic visual identities for its clients yet delegated the design work to platform workers, precarious designers who earned a few bucks while believing they were entrepreneurs. In the same event, network participants held a conversation about Insurgent Design, in which we discussed possibilities for designers to act in an anti-systemic way and fight such unjust production relations.

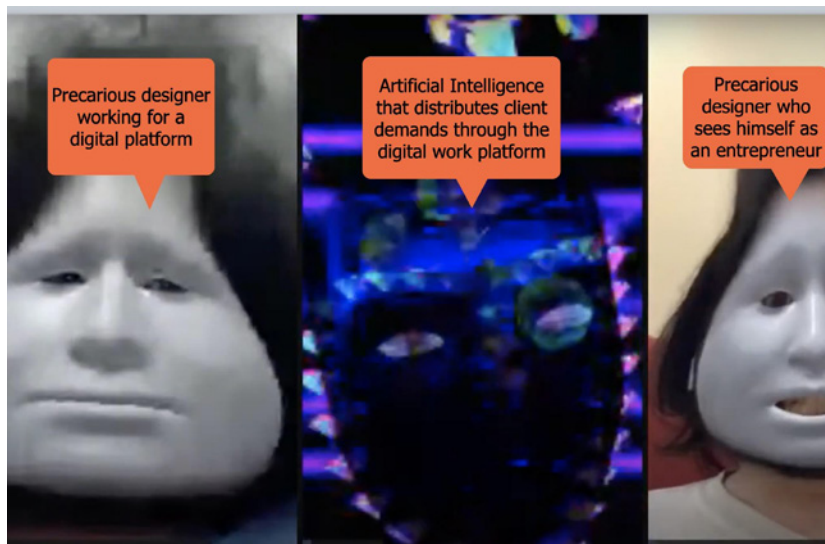


Figure 3: A Theater-Forum play on the platformization and precarization of work presented by the D&O members.

In 2020, the network members joined a panel hosted by Parsons School of Design on participatory design practices in Latin America and a panel hosted by Design Ativista on Decolonial Design. Between July and August of 2021, the Design and Oppression network proposed "Designs of the Oppressed" course, taught in English in partnership with UTFPR and ANDIFES. Forty people from all five continents attended the course. The course contextualized our design pedagogies and practices in Brazilian cultural, social, and political production traditions. By the end of 2021, the network is preparing its first Forum-Theater play in English at the Attending to Futures conference organized by the Köln International School of Design.

The experience with the use of a platform that allows for a horizontal organization has even influenced the possibilities of remote teaching for teachers who participate in the network. Likewise, the content generated on Youtube is often included in our course syllabi. We believe that many of our training practices have already influenced other groups beyond the network participants.

7. Conclusion

We can conclude that the Design & Oppression network is a case of an insurgent designing coalition, a coalition of different individuals and collectives that join forces to rebel against institutionalized and normalized forms of oppression mobilized in and by design in society. Instead of dealing with matters of concern (Manzini, 2015; DiSalvo et al., 2014; Latour, 2004), these coalitions deal with matters of care, as members need to care for each other in the face of oppression (Eleutério & Van Amstel, 2020). Actors do not coalesce only by sharing interests but by helping each other in their struggles.

Insurgent designing coalitions do not point towards a distant, utopian world of many worlds, a pluriverse as Escobar calls it (Escobar, 2018), but towards a utopian near-future world with less oppression, much more oppression more specific cause to fight for. When discussing imagining possible worlds that oppose the current established order, we are not talking about a peaceful horizon, where issues are resolved, and everyone lives together in harmony. We are aware of the contradictions that any change entails. In order to fight the capitalist system or reorient the economy, we have a lot to dismantle first, to reassemble the structures of our society differently.

Insurgent design coalitions are not centered on a pre-defined objective but on understanding the subjective complexity that shapes each collective political subject. The process of designing a coalition is a political process that enables different struggles to be strengthened. In that sense, the solidarity bonding between people, movements, and struggles can be weaved while confronting and dealing with the inequalities and differences that political subjects display.

If design research wants to have productive engagements with social movements, due appreciation should be paid for its traditional and changing organization forms. Instead of instrumentalizing (and watering down) these forms for design purposes, design should support social movements in dismantling the oppressive structures of reality. From our experience, insurgent design coalitions are not a concept abstracted away from social movements but a concrete lived experience of engaging in a careful, respectful, and solidarity practice.

If we take the feminist perspectives of Lima (2021) and Gago (2020), we understand that we are talking about various institutions that need to be rethought, rebuilt, such as the State, the family, the university, religions, and the way these institutions regulate various fields of our lives. Relevant issues range from our sexuality to the way we dress, including what kind of materials we produce, how much our work is worth, how much different knowledges are valued, what we understand by freedom of expression, and how we guarantee our individual and collective rights. As we see in the uprising of the right-wing, authoritarian and conservative movements, the overdetermination of these contents is not automatic; it will depend on the process of political articulation that gives rise to the left in all kinds of struggles. This situation means that the direction we turn also depends on the leftist movement's capacity in each field to deal with their internal differences and inequalities.

Far from believing that all events in our society fall within the scope of our specialty, we understand that all professions can transform social relations and, consequently, society as they assume a critical stance towards the world. For this, we contend not only critical training but also self-criticism that seeks to identify and elucidate the oppressions in which we, designers in our diversity, participate and which we perpetuate.

Our shared histories of weaving the Design & Oppression network led us to reconsider our positionalities and political perspectives. Assuming that our actions are never neutral but always political, we reflected: on which side of the fight do we stand? On the side of the oppressors, by omission or by deliberate action, helping to maintain the mechanisms that limit our freedom? Or on the side of oppressed people, fighting together to overcome oppression? The question and choice arise in each of our actions, whether as educators or as designers, because, as Fry (2007, p. 8) points out, "Design is deeply political, serving or subverting the status quo". An exempt form of design is not possible, except as an ideology. Unlike what we have come across throughout our training, we do not accept a technicist and apolitical conception of design, precisely because we understand that any project takes place in society and involves different agents and agencies.

We share the understanding that all education is ideologically oriented, that all design is political, and, equally important, we define which side we are on and recognize allies in the struggle for a liberating and anti-oppressive design. Despite our inequalities and differences, we share the desire to create spaces for intervention to avoid uncritical activism. The transformation of reality is, therefore, a common horizon for the designers that weave the network. We understand that if we want to transform reality, we need to transform our practices, to overcome paternalistic, ableist, and excluding methodologies, in favor of a design that can harness contradictions to liberate society from all forms of oppression (Van Amstel, 2015).

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DISMANTLING / REASSEMBLING

Theme

Other Ways to Relate



Nested Bodies (or A Small and Careful Spoonful)

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This short paper refers to a project involving the development of a material fermentation practice into a process-led research praxis, wherein themes of embodiment and the relational bodily self are explored through direct contact with nonhuman agents. Theory and concepts borrowed from an Okanagan perspective of the body, as related through its language by scholar and land speaker Jeannette Armstrong, as well as from interaction design and a rich lineage of embodied researchers and practitioners, contribute to a re-framing of the human as a body dependent on others in the life-making activities of preparing, feeding, and eating the ferments. This paper reflects on the service, uncertainty, and accountability taken on by drawing on these lineages and implicating the body in the work, and makes the case for allowing the final outcome to remain a process of ongoing relations and accountabilities.

embodied design research, fermentation, relationality

A Small and Careful Spoonful

Pull the brown paper bag of flour out of the cupboard. Unfurl the crumpled neck of the bag, and flick it so the dust just inside its edge is loosed and settles, so that when you reach your hand inside to scoop a rough cup of flour, less of it ends up on your wrist, hand, and counter. You've already tipped some of the pasty, unfed sourdough starter from its jar; its heavy appearance and sticky texture tell you it's ready to be fed, replenished with flour and water to consume and bring its population of yeasts (and other fermenters, such as various lactobacilli) back into balance, and its smell back to bread.

In its current state, even though you fed it yesterday, it smells faintly of wet old towels, or maybe socks. You missed a few days before that (end-of-term paper was due), and she clearly hasn't recovered. You wonder if you're a fit...fermenter? Parent? Co-life-maker? Human? All those little flour-hungry yeasts are

doing their job in there and here you are, forgetting to do your part because you're so caught up in your arbitrary human doings (papers, Zoom calls, Netflix series).

Dump the flour into the jar on top of the small bit of starter left in the bottom. If things are really dire, maybe you've had to give her a fresh start in a new jar: re-seeding a small and careful spoonful that seems the least grey, or green, or pink, onto a fresh mound of fragrant flour. At least you got her the good stuff this time, ordered fresh from a local mill, instead of one of the sad, ripped bags left behind in the COVID-ransacked flour shelves at the grocery store.

Turn on the kitchen faucet and let the lukewarm water run over your wrist, testing its temperature like you would freshly heated milk for a baby. You measure about the same amount of water as you measured flour, pour it in, and stir. Work out all of those little dry clumps that she seems to struggle with. Put her lid loosely back on, and up she goes to her spot on top of the old refrigerator, whose fan is chugging warm air up and over the curved belly of her jar.

Check again in a couple hours: is she eating? Does she accept your offering, your methods? Has she grown to a confident, doughy-smelling froth, or remained a sad, pale jar-bottom of wet concrete—a sure sign the human side of things has once again come up short in its duties. Sigh of relief—she is effervescent, winking at you from a level four times what she was, blowing bubbles like a toddler in a bathtub, smelling like a tiny pizza party. You've learned how to smell, see and taste her contentedness and her distress, and today she seems to be ok. Making bread or pancakes for yourself now seems superfluous. Besides, you've already promised today's discard—the portion of starter you removed before feeding—to a friend. Better feed that one now too, so it's in fine form by the time your friend drops by for a masked, outdoors exchange in the muddy front yard of your building. That way they'll think you're maybe a better sourdough mom than you are, that you maybe know what you're doing.

Tomorrow will be the same (for goodness' sake don't forget to feed her tomorrow). Scoop dump measure dump measure pour stir smell sit hover check wonder and check again, and see if she decides to keep sticking (and sticky-ing) it out with you, alone together in your lockdown apartment.



Figures 1 (left) & 2 (right): Sourdough starters which lived alongside me during 2019-2021.

Nested Bodies

The previous section offers a small window to my experience of a material practice in an at-home fermentation lab (my kitchen), the core activity of a master of design project during 2019-2021 (Van Oyen, 2021). I borrowed and adapted embodied research methodologies, and conducted other exploratory work, such as drawings, sensory sketches, and practitioner narratives (Van Oyen, 2021). In addition to the sourdough starters, I also worked with lacto-fermented vegetables and yogurt, with similarly varying results and feelings throughout the process.

In the story above, I personify ‘her’, bestowing human gender, emotions and reactions upon one of my starters; in actuality, the ferments have been quite opaque to me. Their subtle fluctuations seem entirely on their own schedules. They are in reaction to, but not necessarily proportional to, my own actions, and subject to wide swings despite my best efforts. Increasingly clear through the work, however, is its effects upon myself and my larger design practice. Enacting ongoing, repetitive service to an enigmatic mix of bacteria, molds, yeasts, food substrate and water, “[brings] to mind thoughts of nested relations between my sensing and working body, its microbes, and those of the land I am on, the ambient air, the watershed, and the other human bodies who worked with the ferments before me” (Van Oyen, 2021, p. 18). From the words of Okanagan scholar and land speaker Jeannette Armstrong (1995), relating an awareness in which of all of these relationships are held at once, and in perpetuity:

We also refer to the land and our bodies with the same root syllable. This means that the flesh which is our body is pieces of the land come to us through the things which the land is. The soil, the water, the air, and all other life-forms contributed part to be our flesh.

A material fermentation practice holds implications for one’s experience of being a subjective, perceiving body embedded in the world, with others: working every day in the way described above, I was fundamentally altered. The microbiome of my skin and gut adapted to the closeness and exchange with the ferments (Dunn, 2018). My sensory system became attuned to their nuanced fluctuations, developing a bodily familiarity through smell, taste, and touch, indicating the state of the relationships between their microbial constituents (Hey, 2017). In this way, my sense of mind-body separation was completely changed, as the work builds and engages knowledge which is not centralized in the analytical mind. Ideas of human exceptionalism within interactions and making have also been destabilized: “the human is not the only maker, nor the only eater, of this process” (Van Oyen, 2021, p. 25).

Bodies of Work

The approach to bodies as living land-forms, as related by Armstrong (1995, 2002), is important to this project on a conceptual level (as described above), as well as a personal one. In borrowing from Armstrong’s words and Okanagan worldview, I become accountable to them. This is especially true due to having been born on, formed and fed by the exact lands Armstrong refers to (the unceded and traditional territories of the Okanagan Peoples), and living as an uninvited guest on unceded Coast Salish lands during the course of the project. Furthermore, calling in embodied research and its methodologies, and just the body in general, makes me accountable to a deep and rich lineage of researchers and practitioners who have shaped the field, many of whom take queer, nonwhite, nonwestern, non-ableist and non-healthist perspectives (see Berrigan, 2014; brown, 2019; Lorde, 1984/2020; Pinto, 2020; Simpson, 2017). Reading and referring to them makes me accountable to practice in less productionist, hierarchical, and oppressive ways. Calling this lineage into the work creates (at the very least) a responsibility to not treat the body or other beings as products, and to never assume that all bodies may experience practice in remotely the same ways. Thus, there is greater

imperative to not produce a unifying product, service, system, manifesto, or set of principles, but to allow the work to remain a process of building relationships (brown, 2017). This is not to say that my efforts necessarily accomplish this, but that they—and I—remain accountable anyway.

My positionality as a white, settler, able-bodied, cis-gendered, Academy- and Industry-approved design researcher in the Global North offers some specific ways in which I am responsible to contribute to the detaching of design from the values and beliefs of a production-focused “patriarchal capitalist Modernity” (Design Research Society). It renders me to be in a position more easily recognizable to the gatekeepers and rules of acceptance to spaces such as conferences, journals, jobs, and degrees. I think this means I have a greater responsibility to enact work/process that may not be fully recognizable, rather than adhering to and perpetuating the highly-productive and structured patterns of the typical design project.

Becoming, Being

I undertook this project as an interaction designer interested in stripping away any digital mediators (such as the fermentation and citizen science applications I had designed previously) between human, microbes, and others involved in the process of fermentation. In *Thoughts on Interaction Design*, John Kolko (2011) offers a definition of interaction design as the “creation of a dialogue between a person and a product, system, or service” (p. 15). According to Donella Meadows (1993), a system “must consist of three kinds of things: elements, interconnections, and a function or purpose”. Taking an ecosystem as an example, these elements may be living (or nonliving) beings, and their entangled dependencies for life may be considered purposeful interconnections (Van Oyen, 2021). Furthermore, as described by interaction designer Kristina Höök (2018), interaction design takes into account wide-ranging considerations such as aesthetics, motion, sound, space, time, subjective experience, and behaviour (2018). Thus, the moving, sensing and perceiving body may be considered as much the material of interaction design as are digital tools and systems, and interaction design may concern itself with dialogues between bodies and ecosystems.

The creation of the dialogue itself, and its placement as a matter of concern in interaction design, matters. It is a process worth exploring, despite possibly not culminating in an easily definable ‘designed outcome’. It has become clear that implementing this project as a business-as-usual design project would be “oriented by a one-way anthropocentric temporality” (Puig de la Bellacasa, 2017) which seems inappropriate for the relationships being built. If a dialogue is like a story, perhaps it can be looked at from a perspective like that of Ursula Le Guin’s (1989) *The Carrier Bag Theory of Fiction*. Rather than a linear arc, to be tracked like an arrow through the air, ending in a triumphant kill—as in the case of Le Guin’s (1989) Hero mammoth hunters—or cleanly resolved product or service, what if it were a container? What if it were simply an old canning jar with thoughts and ideas and regular people and beings and dependencies tumbling around inside? A set of doings and relatings “full of beginnings without ends, of initiations, of losses, of transformations and translations...” (Le Guin, 1989).

This project isn’t finished; it hasn’t converged. The work keeps thickening, and keeps implicating me in relation to more beings, and ever thicker lineages of thought and practice. It is important that I remain faithful to them, and describe the project as it is—a tangled and slow building of relationships between bodies and beings in ways that have already been practiced by others. The material practice exists within a modest setup and a domestic context, and thus I cannot claim that it may have far-reaching impacts in other contexts, nor that it may solve large and systemic problems. It has, however, re-affirmed the idea that we are made from our relatings with each other (Haraway, 2016). As related in

the thesis document, awkwardly written and presented in what felt like the middle of a much bigger story, “[i]t has been less about doing and creating, than becoming, being” (Van Oyen, 2021).

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About the Author:

Julie Van Oyen (she/her) is a designer, researcher, educator, and recent graduate from the Master of Design program at Emily Carr University of Art and Design, which is situated on the unceded territories of the the xwməθk-wəyəm (Musqueam), Skwxwú7mesh (Squamish) and Səlilwətaʔ/Selilwitulh (Tsleil-Waututh) Nations. She is the daughter of Dutch, Scottish and English settlers and immigrants, and was raised among the pines on the unceded territories of the Sqilxʷ/Sylix (Okanagan) Peoples. Growing, living, working, and learning as an uninvited guest on those sacred lands has deeply influenced Julie’s design practice, wherein she explores embodied knowledge & design, more-than-human interactions, and public sector digital service design. In particular, she hopes to honour and serve the land, its Indigenous caretakers, and the interconnected, caring, and complex relations of all who live upon it (human and nonhuman). She also gratefully acknowledges the deep and rich contributions of the BIPOC and queer communities on her design education and work, in particular on collaborative projects during her master’s degree. Her work presented at this conference is a direct result of the influence of these communities’ transformative knowledge, methodologies, and organizing.

Post-anthropocentric Design: The problem of optimizing the relationship between humans and nature

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The history of design shows countless examples in which design has caused harm on an individual, social, political, or ecological level – even things that are identified as nature, depending on the cultural and geographical context, have already been interfered with by design. All these actions are, of course, anthropocentric – because design is always an anthropocentric activity and practically no processes exist that seriously exclude humans as stakeholders (this problem is intensified by the fact that design is also dominated by a WEIRD – western, educated, industrialized, rich and democratic – view that lacks the methods and vocabulary to understand needs and requirements in a global context). Established design processes can thus quickly cease to function since they cannot reflect all interests (between different people; and the “interest” of nature and its plant and animal representatives – whatever that may mean). So we need a post-eurocentric and then a post-anthropocentric understanding of design – and one that functions pluralistically and above all also future-oriented. Instead of using established processes to deal with interdependence, this tension between humans and nature formulates the need for new design processes and a serious design ethic.

Social Design; Post-anthropocentric design; Transformation Design; Design Ethic

1. Introduction: The Relationship between Humans and Nature

In a discussion on the relationship between humans and nature, there are various reasons and developments that could be listed as arguments. However, the context of the impending climate catastrophe—and the global injustices that go along with it—should make one thing very clear: this relationship should be negotiated in design discourse, as there is a need for an understanding of design

that includes potential interests of non-human entities and takes into account dependencies and interconnectedness. As a result, it also shows global injustices.

Such an idea embeds itself in current discussions on social or transformational design. However, it is my belief that we need to fundamentally change our understanding of design: Rather than continuing to view design as a problem-solving activity, we should view it as a problem-causing action. This would provoke a shift in our anthropocentric understanding of design as we delve into the potential problems.

This way of thinking contradicts the optimism that can often be attributed to the discussion of social design and similar concepts. In this basic understanding, design is seen as a way to solve social and political problems. It is not my intention to contradict the idea that design can solve problems—however, a shift in this way of thinking can create a new understanding of our actions and our dependencies. After all, optimism in design can also be viewed critically after looking at the history of design: As such, the history of design is also a history of attempted problem solving. Design has often been used to try to solve social problems and optimize circumstances on different scales, meaning the history of design is also a history of optimization. But even design with a positive will to optimize can fail—it can even cause problems of catastrophic proportions.

2. Design as an Optimization Process

The history of design has brought forth numerous movements and actors who have not only understood the design process as a form-giving action, but have also used design as a means of improvement. This can mean small interventions in individual situations as well as a greater urge to improve social situations with and through design.

Of course, this argumentation is only comprehensible if design is explained and defined. Design is a rather fuzzy term that is constantly argued about in academic discourse. As such, everything is seen as design—thus, the history of humankind is automatically also a history of design. While I do not intend to contradict this, I wish to use a somewhat restricted concept of design. According to this somewhat narrower concept, design is a relatively young term. In the European area, it appeared in the 19th century. It appeared in the Oxford English Dictionary in 1885 (Mareis, 2011, p. 24), accompanying the advancing industrialization. In the course of this industrialization, design became increasingly separated from the production of the artifact. In this development, the social and political context is also significant. The aforementioned industrialization was accompanied by major social changes, which is why the first major design movements in the European region were already discussing social, political, and philosophical issues. Their understanding of design was not reduced to the design of an artifact. Rather, it was also about improving circumstances with and through design. The working conditions of the working class served as a clear example of this. *Arts and Crafts* can be seen as an early design movement in which protagonists—such as John Ruskin and William Morris—formulated new visions. On the formal level, they addressed a return to pre-industrial forms, but this was embedded in a general critique of advancing industrialization; in the case of William Morris, this culminated in a call for a return to crafts and simple living (Erlhoff, 2008, p. 21). The design thus corresponded with a political vision. The following *Art Nouveau* also deviated from solely focus on developing a new formal language. The idea of optimizing social conditions was equally important. With the onset of design modernism, such visions manifested themselves in the design discourse. Particularly in Europe, the 1920s were characterized by the fact that design artifacts were closely linked to social utility; the *Bauhaus*, created in a period marked by life-reform movements, evolves from an esoteric initial period with a comprehensive design claim (Mareis, 2011, p. 90-91) to a politically influenced educational institution. The “people’s needs instead of luxury needs” motto was proclaimed under Hannes Meyer (Eisele, 2008, p. 45). At a similar

time, the *New Frankfurt* also attempted to improve people's living conditions with design artifacts. In an era characterized by a general idea of optimization (e.g., the home economics movement), exciting typification projects were born. One of such projects was the so-called Frankfurt Kitchen, which sought to optimize the domestic workplace by creating the basis of the modern fitted kitchen. Among other aspects, the aim here was to transfer the familiar principles of performance enhancement from industrialization to domestic work; this could be seen to start from the standardizing of body measurements (Moisi, 2019, p. 181).

Without further judgement, it can be assumed that many designs of this time had a kind of programmatic vision and a will to change. In particular, functionalism—which sprang from the thoughts of design modernism—and its will to optimize can be linked to the major problems of our time. Mara Recklies argues that the ecological, ethical, and economically induced catastrophes of the present illustrate the problematic nature of the idea of functionality in design; by linking the ideas and visions of functionalism to artifacts like the to-go plastic cup, the PET bottle, or the plastic bag, she draws a connection between design and the recent garbage issue (Recklies, 2021, p. 104–105).

The car-centered city can also be seen as terrible ecological consequence of a modernity design vision (Quadflieg, 2018)—such a list could be continued far and wide. In order avoid going beyond the scope of this contribution, it should be stated concisely: some of the problems of the present can be quickly linked to the optimization ideas of design history. This can be seen as a confirmation of Victor Papanek (1971), who impressively postulated that design could cause a great deal of worldly damage.

It is worth noting that this discussion is truncated. Undoubtedly, equally positive aspects can be derived from past ideas and visions. At the very least, however, the retrospective view should teach us something more important than basic skepticism: even design with good intentions should be accompanied by critical discourse. The idea that design interventions or ideas will result in societal improvements should not be criticized. Rather, it should be accompanied by a critical eye. History shows that the long-term consequences of well-intentioned visions can be problematic: Design processes of the past often failed to assess the extent of the possible consequences of their actions—it seems that the idea of improvement masks the potential of problems. As such, the discussion of optimization idea consequences should be given more space in design.

3. Optimization of Nature

Indeed, the human urge to optimize means that large areas of our environment have somehow been designed. What does this term mean here? Even large areas of nature are designed on a functional level (i.e., the bred alpaca that gives more wool than the original vicuña) or a form-giving level (i.e., the banana as a designed form). Food in particular is optimized on diverse levels: fewer seeds, more pulp, straighter shapes for more efficient packaging, brighter colors, and so on. Johanna Kleinert (2020) examined fruits and vegetables from a design science perspective; this indicated that the relationship between nature and design is more complex than a superficial understanding of nature might suggest. This is another reason why terms like biofacts (Karafyllis, 2006) are used in the discourse to discuss the complex connection between culture, technology, and nature.

4. Design as Problem Solving

Design was often accompanied by a thought of optimization—this began to clearly manifest around the 1960s. At that time, design was beginning to be considered as a fundamental problem-solving

competence in the US and Europe. The writings of Herbert Simon and Horst Rittel had a particularly great influence in the period (Mareis, 2011, p. 130–131). It was often argued that the competence of designers would not only lie in the aesthetic design of artifacts—rather, it would also lie in the fact that they could identify and solve problems with their approach. This way of thinking has manifested itself in the famous methods of contemporary design. Approaches such as Design Thinking or the Double Diamond process are based on the idea that designers acquire a fundamental understanding of the problem domain first, and they subsequently work out solutions in iterative steps while testing them in the process. There are two problems that can be attributed to this approach: First, the process ends with the idea or artifact, but not with the possible consequences. Solutions emerge with possible consequences that are not discussed in the process. Thus, this approach entails short-term and isolated thinking. If the cross-reference is drawn to global dependencies or even the impending climate catastrophe, then design approaches that end with the artifact fall short. This merges smoothly into the second problem: the lack of consideration of diverging interests. User research is point of high interest in the design context, and the interests of potential users are evaluated and taken into account. However, what comes of user interests that are not congruent with non-user interests? Essentially, no existing design process manages to seriously and systematically take different interests into consideration. This is exactly where established design processes fail. They simply do not—or cannot—take a sufficient number of viewpoints into account.

The alleged “interest” of humans is an exciting point in the discussion about design, as it takes up so much space in the current design discourse. After all, the idea of human-centered design is currently very dominant in the discourse. Thus, the interest of humans seems to be somehow in the center. Before addressing that matter, I wish to present the aforementioned example and briefly explain the conflict: an object that is as convenient as a PET bottle or a to-go cup can of course be in the interest of its users, but this interest can come into conflict with other interests (i.e., interests of the people or non-human actors who suffer from a possible waste problem, interests of those who feel and will feel the consequences of the climate catastrophe fueled by the use of fossil resources, etc.). Additionally, an interest can change over a period of time. Interests can also diverge, so it is important to also consider the (long-term) consequences of an artifact.

It should be noted that “human” is indeed a difficult term—particularly, it is a term that is simply not used precisely. For example, Laura Forlano argues that “design, architecture, and related fields have incorporated an understanding of the human based on the notion of a universal subject—usually white, male, privileged, well-off, and young—that does not exist in reality” (Forlano, 2017, p. 27). Thus, the WEIRD. acronym often surfaces in association with what it means to be human: Western, educated, industrialized, rich, and democratic. Global action is just as conditional as global interests, and they can often contradict each other. As such, the human-centered term should generate skepticism; by no means are all humans considered here. Furthermore, considering the interests of some can lead to the suffering of others. The interest of people should thus be considered in the context of global interdependencies: “The world of the South has in large part been an ontological designing consequence of the Eurocentric world of the North” (Fry, 2017, p. 26).

As such, established design methodologies may be failing precisely at the point where design fails to manifest or reinforce global injustices. More importantly, it fails at the point where design can no longer avoid discussion regarding the ecological consequences of artifacts.

5. A Pluriverse Design

If we negotiate the relationship between humans and nature, then other concepts should be discussed. This is especially relevant because we as humanity are naturally dependent on climate and nature. Ailton Krenak formulates this impressively:

What's happening is terrible, but society needs to understand that we are not the salt of the earth. For a long time, we were fed the story that we, humanity, stand apart from the great big organism of Earth, and we began to think of ourselves as one thing, and Earth, another: Humankind versus Earth. We have to abandon our anthropocentrism. There's a lot more to Earth than us, and biodiversity doesn't seem to be missing us at all. Quite the contrary. (Krenak, 2020, p.5–6)

The idea of abandoning an anthropocentric way of thinking can also be found in design. Arturo Escobar (2018), in particular, impressively articulates that design should serve a pluriverse with a diverse set of human and non-human actors. The Concepts of *Ecospheric Design* by Gabriel García-Acosta and Carles Riba Romeva (2010) or the *Non-anthropocentric Framework* by Li Jönsson (2014) could also be discussed in this context.

Thus, it is necessary to establish an understanding of design that has a non-anthropocentric core. This could be justified ethically. However, in the context of the looming climate catastrophe, it can be much shorter. Ironically, a post-anthropocentric understanding of design could then map the interests of humanity again; the perspective of the interest of non-human entities reveals our dependencies on them (and averting a climate catastrophe should be in the human interest, after all).

6. Design as a Problem Creator

German design theorist Friedrich von Borries (2020) explored the concept of no consequences; he argued that we should think about how to leave as few traces as possible rather than being concerned with simply acting sustainably. What would a life that is as inconsequential as possible look like? Could a regulative ideal that is perhaps unattainable but worth striving for—like freedom, justice, and equality—be derived from this argument (von Borries, 2020)?

The idea of no consequences is indeed an idea that can be easily formulated in a situation characterized by wealth and abundance. The exclusion of a possible improvement, which can also be a consequence in and of itself, can certainly be discussed differently in other regions of the world. However, this is perhaps the strength of the concept: it is a way of thinking that should be discussed in the Global North, as it is precisely the inconsequence of potential actions here that could bring a global injustice into focus. From this, a new understanding of design can be derived.

Instead of understanding design as a problem-solving activity, it could also be understood as a problem-causing activity. From this, a new understanding of design can emerge. In the Global North, a new approach could focus on fundamentally reversing the relevant thought processes. We could attempt to avoid new problems first instead of looking for solutions to problems with and through design, particularly solutions that create various new problems (i.e., ecological issues). Focusing on the idea that design can cause harm automatically leads to a long-term way of thinking that no longer ends with the artifact.

No empathy arises from this, but it can be argued that focusing on potential problems caused by human actions very quickly and clearly reveals our dependence on nature and our responsibility to other people. Over a long period of time, this can influence the way we think. A problem-avoiding design—or

a design without consequences, according to von Borries—is a simplification that cannot do justice to the complexity of the reality of design. However, it is a simplification that can manage to create a thought-provoking effect by shifting the focus from solutions to consequences (it also creates a shift from “user” and “target groups” to other humans and ecology).

7. Ethical Questions

The aforementioned simplification reveals that complex ethical questions are underrepresented in the design discourse. How do we deal with different needs and desires? How do we value divergent interests?

Indeed, the question of possible consequences of design also reveals the lack of competence of established design methods to map non-human interest. Design is an anthropocentric activity, but what about non-human interest (this could include: the interest of those not yet born)? What about non-human entities? The inclusion of non-human interest can bring interrelationships and interdependencies into focus. An understanding of design that is post-anthropocentric can also be directly understood as climate-centric (i.e., climate-neutral).

8. The Optimization of the Human/Nature Relationship

How would our tools change if we understood our planet as an interconnected living system? Arguably, optimizing the relationship between humans and nature is not feasible with the established optimism in design. This is a result of a lack of concrete approaches that could succeed in establishing post-anthropocentric ways of thinking. However, instead of simply searching for such concepts, I would like to argue that an understanding of the planet as an interconnected living system can emerge via an understanding of the interdependencies of humans and nature—this especially applies in the Global North. This system can emerge via the idea of avoiding new problems. As such, I therefore argue for an understanding of design that does not end with the artifact. I argue for a design methodology that does not overemphasize its problem-solving competence; rather, it integrates an awareness of its problem causation and shifts the focus to include new perspectives of interest. A problem-avoiding mindset can lead to a post-anthropocentric mindset, and a post-anthropocentric mindset can optimize our relationship with the rest of the world.

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About the Author:

Sven Quadflieg — I studied design and visual communication at the Folkwang University of the Arts (Essen, Germany) and the Zurich University of the Arts (Switzerland) and wrote my doctoral thesis at the HFBK Hamburg. I am currently a professor at HSHL (Lippstadt, Germany), having previously taught at the Bergische Universität Wuppertal, the Fachhochschule Münster, Ecosign and the Folkwang Universität der Künste (all: Germany). My research interests are the dependencies between design and society, political design, and transformation design. I researched and published on informal architecture, social design and political design and I am currently particularly interested in design in the context of algorithms and artificial intelligence. My perspective is certainly shaped by a privileged, academic, and European background – free from all forms of experiences of discrimination –, though my interest lies precisely in the deconstruction of these privileges: how can a diversity-sensitive and inclusive design be realized? What are methods to capture the needs of human and non-human beings? How can we balance different needs against each other?

Tools for an Unknown Prospect

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Unknown Prospect is an assemblage and collaboration with Ochre that responds to extractive industry. I am exploring methods of design in relation with the more-than-human as an alternative to design research and practices that serve infinite production and capitalist culture. Ochres are not only mineral pigment, but terrestrial beings that have an ancient relationship with human culture. I enlist these geological interlocutors in creative work and printmaking to make drawings, maps, and books that extend beyond the colonial record. Ochre not only makes color material, it activates its own agency in world-making. It realizes the desert as more than barren, criminal wasteland or public commodity. Ochre confronts the misconception of land left over as recreational 'play-ground' where humans can have 'no impact' and take no account for the erasure and enslavement of Indigenous people. The desert is more than an abundant ecosystem with a staggering number of endemic species and access to millions of years of geological memory — these lands are the ancestral territory of sovereign indigenous tribes. This film reveals one view of the *pluriverse*, as seen from the desert, as told by ochre.

Ochre, Design Research Paradigm, Design Process, Ecofeminism

1. Introduction

Unknown Prospect is an assemblage and collaboration with Ochre that responds to extractive industry. I am exploring methods of design in relation with the more-than-human as an alternative to design research and practices that serve infinite production and capitalist culture. Ochres are not only mineral pigments, but terrestrial beings that have an ancient relationship with human culture. I enlist these geological interlocutors in creative work and printmaking to make drawings, maps, and books that extend beyond the colonial record. I hope to establish a design research paradigm that can dismantle the dualism between nature/culture. So that culture is not seen as distinct from the raw material - or

nature - it is composed of. As a designer, I position myself in a dialogue with Ochre as a world making agent.



Figure 1 Ochre pigment extensions

What if the design process began with the needs of the other, the more-than-human? What if it began with what the more-than-human has experienced and seen? Ochres reveal more questions than answers, they reveal potential lines of flight¹ rather than discrete locations in space.

John Law describes the “implications that worlds in the plural are enacted in different and power-saturated practices” as opposed to practice in one external reality. (Law 2011) Design is uniquely situated as a practice and discipline to realize and amplify the world of many worlds that Law describes. Drawings are products of power that can distribute authority or remove agency. Designers must question these structures and the systems of oppression they create. If we can acknowledge that the drawing has authority, then new methods and practices for generating the drawing can also create alternative power relations. My print work and practice in book binding, combined with architectural training in documents and drawing, have led to an interest in maps and atlases as products of information, communication, and narrative. I wonder if these products can lead to design ethics and practices that prioritize the relation between human and more-than-human in many worlds.² I am interested in a design research paradigm that dismantles the one-world world and denies its power and authority.

¹ Deleuze, Gilles., Guattari, Félix. A Thousand Plateaus: Capitalism and Schizophrenia. United Kingdom: University of Minnesota Press, 1987.

² This obviously refers to the often quoted Zapatista manifesto describing ‘a world where many worlds fit’ but I am further influenced by the scholars Marilyn Strathern, Donna Haraway, Eduardo Kohn, Marisol de la Cadena, Mario Blaser, and of course the closing speaker for this conference, Arturo Escobar.



Figure 2 Clip from *Tools for an Unknown Prospect*

At the 2021 Pivot Conference I presented a film documenting my design research and material practice as a model for ‘dismantling and reassembling tools for alternative futures’.³ My ongoing project titled Unknown Prospect is a body of work surveying so-called public lands through Ochre pigments and the products that emerge in relationship with them. Unknown Prospect is an iterative atlas of mining sites and their geological memory as told through color. Through this material practice I am developing a research paradigm that positions design as epistemic tool in defining the relationship between human (designer) and more-than-human (material), revealing alternative pasts, presents, and futures. In these proceedings I would like to continue the discussion of my relationship (as designer) to Ochre (the material of my research) in the context of the San Rafael Swell and how it implicates the theory and products that emerge from my design process and their eventual amplification or denial of the anthropo-not-seen.⁴

2. Material Practice

2.1 Context and Positionality

I am presenting a material practice that uses design process as research or conducts research through design. I will elaborate on this form of design research later, but first, I would like to discuss my relationship to the place of my material practice. Indigenous scholar, Shawn Wilson, writes “an Indigenous research paradigm is relational and maintains relational accountability.” (Wilson 2008) While I believe this should inform all research paradigms, I find it especially relevant — and currently lacking — in design research.

This practice is conducted on protected lands with mining histories throughout the state of so-called Utah in the United States. These lands are not my ancestral lands. These lands are the ancestral territories of Indigenous tribes including the Ute, Goshute, Shoshone, Paiute, Dine, Ute Mountain Ute,

3 Tools for an Unknown Prospect <https://youtu.be/5m8l6iumjy8>

4 See “An Invitation to Live Together: Making the Complex We” by Marisol de la Cadena for her definition of her concept of the Anthropo-not-seen.

Hopi, Zuni. This is not an exhaustive list. The location of my current research is due to proximity in a practical sense - that I can access these places within about 5 hours by car from my location in so-called Salt Lake City where I was raised in an immigrant family from the island of Crete. Crete is the largest island in the Mediterranean Sea. After hundreds of years of colonization and a brief sovereign period from 1898 to 1913, Crete joined Greece in 1913. (Moorey 2020) My relationship with these regions is initiated by the circumstance of the migration of my family from our own ancestral territory. The simple story is that my family moved here because other Cretan families moved here before them, and those Cretan families moved here because of mining. My interest in mining was inspired by the ways the unique history of the Cretan immigrant population in so-called Utah is inextricably linked to extractive industry.

I acknowledge that the success of my people in Utah is dependent on the dispossession of lands and decimation of Indigenous people. Many Cretan-Americans will react to this statement very defensively citing that they or their forefathers came to the United States with nothing, worked hard, and earned what they have now. This doesn't change the fact that the immigrant's opportunity in a 'new land' was established through the violent tactics of colonization.⁵

My own identity is complex in a way typical to all hyphenated U.S. citizens. As a Cretan-American, in the States I'm not fully American, in Crete, I'm not fully Cretan. There is abundance in this hybridity as well - ways in which my perspective gives me more, but it makes it difficult to anchor one's own positionality. My own ancestral heritage also values the relationship so vital to Wilson's Indigenous research paradigm. Cretan culture and identity is built around relationship. I also believe the experience of growing up in an immigrant family in the United States has embedded a commitment (if not obligation) to honoring relations that transcends cultural origin. My relationship to the places of my research and material practice is also less practical. Beyond the circumstance of my birth or simple travel conveniences, I have a visceral, physical reaction to being in these places.

As an academic, my research practice is supported by my position as an assistant professor at a public research university in the United States and I acknowledge the privilege associated with this appointment. I also have funded research assistants that accompany me in the field and work on research, archival processes, filming, and exhibit fabrication. I'm very grateful to my current research assistant, Megan Petitt (B.S. Design '22) for her contributions to the film and on-going research in Unknown Prospect and also her critique and thoughtful insights. It's important to me that all research assistants are paid for their labor, so funding for these positions is a particular challenge, since there is easily enough work to go around.

2.2 Site: San Rafael Swell

The installment of Unknown Prospect discussed in these proceedings is located in the San Rafael Swell. The Swell is a geological anomaly at the edge of the Colorado Plateau in the southwest United States. An anticline pushed up 60 million years ago during the Laramide Orogeny. It measures roughly 64 km wide and 121 km long. Erosion has revealed millions of years of geological time exposed to the desert sun along the reef edge. An ancient marine environment left us the Chinle formation in the Triassic Period — a formation marked by colorful instances of oxidation or reduction based on fluctuating sea levels and water conditions, tracing soft and friable pigments with variety of hue and memory.

The Colorado Plateau traverses thousands of vertical meters in diverse stratified layers, from the variable 'ground level' the body is minuscule and useless in scale. Access to these strata is facilitated

⁵ There is a great deal of further discussion to be had that doesn't meet the purpose of this particular paper relating the Cretan identity towards their own colonization and how it is divergent and contiguous with the effects of imperialism in the U.S.

either by natural erosion and water, or by industrial interventions: road cuts and tailings piles⁶. My practice is enabled by miles and miles of roads that divide and scar the landscape in the name of resource extraction and national progress. Massive building projects to access prospects of mineral wealth. In some ways my design research practice becomes a tracing of mining activities that hopes to arrive at alternative futures. I also attempt to re-define the waste left in so many piles of material extracted from the earth in the name of exploration, or efficiency.



Figure 3 The San Rafael Swell: An endemic cactus shares the rocky hilltop with invasive cheat grass, a mining road beyond leads to the western reef edge in the distance.

2.2 Relationship produces knowledge

My relationship to the broader region of my design research demands I confront a colonial system and its outcomes, but the practice itself has also revealed untold or even avoided stories. By pursuing information to contextualize the materials and design outcomes that are derived from sites like the San Rafael Swell, I have found narratives that are otherwise absent from our everyday discussion of these same places. Directly investigating the human history and meaning of the sites reveals a complex assortment of representations of many worlds. The dominant one-world world (Law 2011) of colonial pioneers, industrial development, or recreational beauty often actively ignore the Indigenous history, legacy, and heritage of the first peoples to inhabit these lands. I don't claim to speak for Indigenous voices, but I do feel a responsibility to point out colonial culpability in the histories of human involvement in the Swell. It's easy to arrive at the politics of extraction from an environmental or social justice perspective, but the same discussions are rarely upheld as inherent material ethics of design process. From these narratives I have identified several dualisms that I believe must be dismantled for alternative futures in the Swell. Design research through Ochre practice becomes the methodology for doing so.

The San Rafael Swell — like so much of the Western U.S. — has been shaped by dualisms in multiple dimensions. These dualisms trap the realities of this place. In terms of use, as extractive industry, which I mean to include mining, grazing and also recreation and research, being positioned as dominant to any other uses, which primarily include Indigenous life ways, culture and community knowledge production.

⁶ Tailings are the materials left over after the process of separating the valuable fraction of ore.

In terms of commodification, where by the definition of land, and everything it contains, as resource is dominant to the identity of non-human earth beings (and selves as Kohn might position them) that we have relationship with. And finally in terms of value. The dualism in which material, life-sustaining, and aesthetic values are opposed to each other as either desolate, wastelands or abundant places of diverse terrestrial beings and culture ie: waste/resource, or wilderness study area/OHV trail.

The material investigation of my process produces knowledge about the sites and their more-than-human inhabitants by combining direct experience with research into the geological history and science. I believe design research is uniquely positioned between objective or subjective paradigms so that it can begin to reassemble relations between human and non-human. Ochres are a connection between bio and geo, between humans and rocks.

3. Ochre practice as tool for “dismantling and reassembling”

3.1 Ochre

Humans have been becoming-with⁷ Ochre for a very long time. Red Ochre, or iron oxide, is one of the most abundant minerals on the earth and humans have been engaging it as medicine, as art, and as divine agent for approximately 300,000 years if one relies on the archeological record. Iron Oxides are used for navigation and technology as critical guides of information and movement both global and microscopic in scale.

Iron oxides are common compounds composed of Fe together with O and OH. They are widespread in nature and present in all aspects of the global system including the atmosphere, pedosphere, biosphere, hydrosphere, and lithosphere. (Schwertmann & Cornell 2003) The common iron oxides I have found in



Figure 4 Ochre bodies and respective pigments; San Rafael Swell.

⁷ See Kate Wright's contribution of 'Becoming-with' to the Living Lexicon for the Environmental Humanities, *Environmental Humanities*, vol. 5, 2014, pp. 277-281.

the San Rafael Swell are Goethite (α -FeOOH), Lepidocrocite (γ -FeOOH), Green Rusts, and Hematite (α -Fe₂O₃) producing ranges of red, purple, brown, yellow and green. While any rock or soil has pigment, not every rock or soil produces good pigment material. The soft mudstone and clay stone layers of the Chinle formation in the San Rafael Swell are well suited for pigment.

Ochre bodies are iron in a geological sense, while my own body is iron in the sense of flesh and blood. I understand pigment as an extension — or one dimension of — the Ochre body. Ochre has an ancient memory of the earth and it's fluctuating marine or desert environments. As Eduardo Kohn presents and argument for the agency of the forest and forest beings, a terrestrial being doesn't have to use language to signify meaning. (Kohn 2013) I believe his argument about selves can be extended to Ochre as geological interlocutors. Ochre bodies have selves which are flattened when made into pigment which itself become another form of signifier. While my design practice leans on interest in pigment and color, I imagine the Ochre products I am creating as more than art or representative artifacts. They are products of information and define worlds in time and space. There is much more to be untangled between flat and round, or rhizome, or multi-dimensional beyond the cartesian space the traps us in one world.

3.2 Assemblage

The United States Geological Survey (USGS) is a government agency in the United States Department of the Interior. Since establishment in March of 1879 the center of activity for the USGS continues to be the surveying and mapping of 'resources'. (Rabbitt 1989) The USGS maintains a data set titled the Mineral Resource Data System, collected from 1996 through 2017. It contains thousands of records related to mineral prospects and mines in the US and around the world. (USGS, n.d.) minedat.org lists 13 definitions of the term 'prospect'. A prospect is 'an area that is a potential site of mineral deposits. Sometimes, an area that has been explored in a preliminary way but has not given evidence of economic value. A prospect is distinct from a mine in that it is non-producing.' All 13 definitions refer to the ground as property, value, wealth, or economic importance in some sense. Twelve denotes the actual 'specimen or sample of mineral obtained from a small amount of paydirt or ore.' As a verb, the final



Figure 5 Precedent USGS surveys on the studio table with various Ochres.

listing for prospect describes the working of a place ‘experimentally in order to ascertain its richness in precious minerals.’

There are 1,089 listings in the MRDS with the title “Unknown Prospect” through out the state of so-called Utah. (USGS, n.d.) This project is named for these peculiar listings that never materialized. *Unknown Prospect*, is made up of particular places on a map, but also a body of work surveying so-called public lands through story and pigments.

It is a practice of design research that investigates Ochres to make maps and drawings, archives, books and products of design that reveal erased histories and alternative futures in each of the sites. The performance of assembling ochres is as critical as their subsequent deployment in products. Ochre not only makes color material, it activates its own agency in world-making.

Unknown Prospect is an archive of Ochres and the products made by, for, and with them. My work begins with field visits to Ochre places⁸ associated with extractive industry. I assemble Ochre bodies, which are in soil and rock form, from the site. In the field, my body’s obvious responsibility is walking and gathering, but more important is the sensing of environment, becoming-with color with-out sight. In this practice is it the relationship between body and geology that reveals color. It doesn’t depend on aesthetic phenomena or values, and moves color and design to a conversation beyond representation.



Figure 6 Author walking up a worn away road cut in the Swell

I have several parameters to navigate the ethics of my material process. I collect materials that have been discarded or disrupted by previous mining activity in road cuts and tailings piles, or materials that have been released by natural erosion and washes that will otherwise be overturned by the next rainfall. The process of collection itself is a conversation with each site. Field work is not always about collection

⁸ My ochre mentor Heidi Gustafson refers to particular sites where she works as Ochre Places. I follow her example of creating relationship with ‘ochre places’ over time.

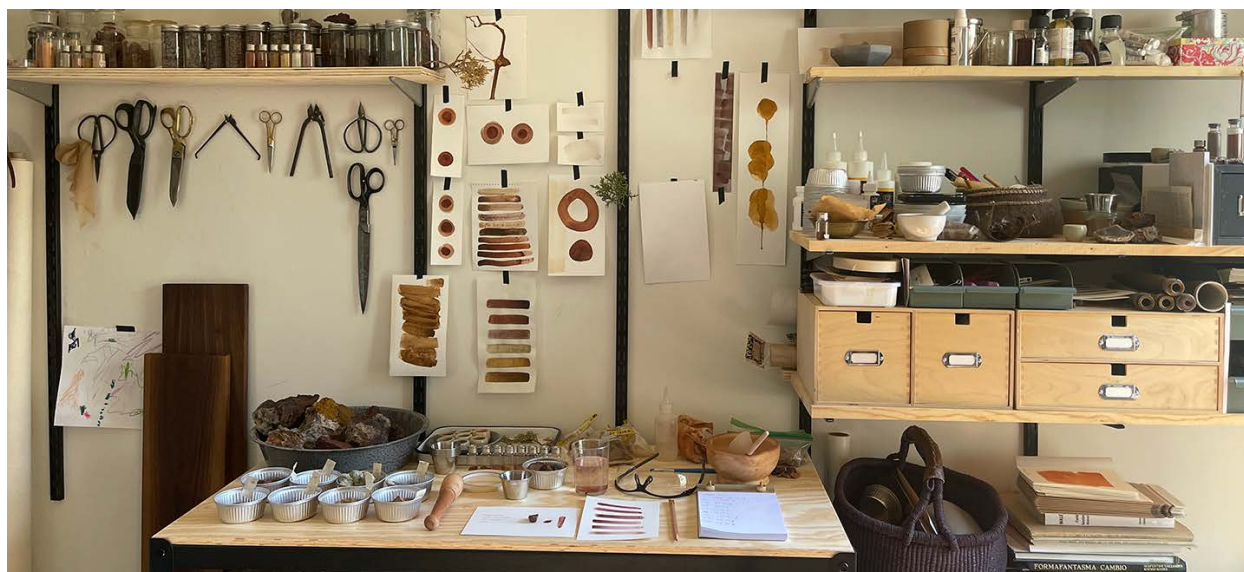


Figure 7 Author's studio

or taking, sometimes its about being with and experiencing the more-than-human.⁹ A design research paradigm that values relationship between designer and material can account for this performative and experiential form of knowledge production.

In terms of the ubiquitous definitions of design research: research into design, research through design, and research for design, I position my practice squarely in the second category — research through design in which making and material process become the methods of knowledge production. I have only begun to untangle my relationship as 'designer/researcher' with that of 'matter'. This question is vital to resisting a disciplinary tendency towards control and distortion of the non-human, which we must begin to understand as interrelated to our own self.

3.3 Pigment / Swatch / Product

Later in my studio I generate pigment and swatch extensions of the Ochre bodies using a mortar & pestle, various sieves, water and binding medium, brushes and paper. After weighing and cataloging the ochre bodies, a portion is preserved for reference and a portion is ground using a mortar and pestle. Each Ochre responds to grinding in a different way producing material knowledge in the process.

I use various sieves to separate out consistent particle size and produce a finely powdered pigment that I store in glass vials. The pigment is one extension or dimension of the Ochre body and it's expressed in further dimensions of volume and form through swatches and eventual products of design. As a process I swatch each pigment on watercolor paper with plain water immediately after grinding. I don't mull the pigments into a binder until I'm ready to deploy them in product form — prints, maps, books, etc. When I'm ready to 'use' a pigment, I mull it on a glass plate with gum arabic. Sometimes I add clove or vetiver oil or honey or ox gall, but most often I just use a simple combination of pigment, water, and gum

⁹ Artist Elaine Su-hui recently articulated this instinct so perfectly at the 2021 Pigment Revealed Symposium as her 'not-taking-practice' @Elainesuhui



Figure 8 Left: Mulling pigment extensions; Right: Ochre marks on letterpress prints of archival image of Temple Mountain, San Rafael Swell

arabic. Once it's mulled I create swatches of this pigment in binding medium on watercolor paper and proceed with my intended use for the 'paint' I've made. Excess is stored either wet in sealed containers or let to dry out in open dishes which can then be revived with water again in the future. These methods for the application of pigment have aligned with my previous practice in printmaking, but I'm also finding paths forward for a variety of Ochre products beyond the paper form and also the tools that might be associated with Ochre practice.



Figure 9 Left: Ochre body, pigment, and swatch; Right: Prototypes for archive exhibit

3.4 Catalog / Archive

The design process and outcomes are catalogued for a digital OmekaS site archiving the Ochre Bodies, pigments, swatches, and products as physical manifestations of place and narrative describing

relationship between human and non-human beings.¹⁰ The initial precedent for my archival pursuits was the MRDS and the broader activities of the United States Geological Survey. However, research has revealed a multiplicity of archival efforts in relation to the earth from both scientific and creative disciplines.

It's important to recognize that my practice in archiving and assembling is built upon a foundation of precedent work by a global community researching and working with pigments. I'm informed and inspired by many practitioners including Heidi Gustafson, in the U.S. who has assembled an archive as sanctuary:

"Ochre Sanctuary is an evolving, living place that serves to protect and care for ochre, ie. iron-based earth and pigment wisdom. It's currently based in tiny cabin in far north Cascade foothills of Nooksack territory, Washington, USA. Counsel of ochres includes hundreds of rocks and dusts, across the color spectrum..." (Gustafson, n.d.)

Melonie Ancheta is an independent researcher archiving Indigenous Traditional Knowledge regarding NW Coast Native pigments. Architect Catalina Christensen assembles 'pigment collections' in her art practice in Columbia. Kauae Raro Research Collective are Sarah Hudson and Lanae Cable, a couple of Ngāti Awa, Ngāti Pūkeko, Ngāi Tūhoe artists, researchers and mums based in Whakatāne, Aotearoa... "dedicated to researching and sharing our mahi looking at whenua as an art material, a component of ceremony, for personal adornment and as rongoā." (Hudson & Cable, n.d.) These are just a few of the global network of independent researchers assembling pigment archives. Ruth Siddall at University College London maintains multiple collections and databases regarding pigment use and has published the *Pigment Compendium: A dictionary and Optical Microscopy of Historic Pigments*. Sabine Pinon has recently completed an MA at the City & Guilds of London Art School where as part of her research she catalogued the century old historical pigment archive of L.Cornelissen & Son. The Forbes pigment collection at Harvard University features over 2,700 pigment 'specimens'. Across the globe there are many researchers in the fields of Anthropology and Archeology documenting pigment throughout human history.

These mentors and pigment friends guide my own development of Ochre practice and I hope that my contribution can build upon the format of pigment archive while also using the practice to develop a design research paradigm. Unknown Prospect is a testing ground and prototype for designing a global, open-source, digital archive that can bring together related pigment knowledge from many diverse disciplines and bridge the problematic divide between academic and community research. But first, I am building my own specific catalog compiled of field visits, Ochre practice, imaging and analysis, divergent histories and publication in print and book form. In this slow process, color is not abstract. It's not a proprietary code, or a swatch from a digital library, it's not even mixed by hand via a set of pre-determined ratios of 12 base colors. Color is a result of geological being in the world. The color has history, has significance, has meaning. It comes from somewhere, but it also is some one - it has agency and desires of it's own. Ochre embeds this knowing in the documents and products it occupies.

¹⁰ The omekaS site is hosted by the Marriott Library at the University of Utah and we have benefited greatly from generous mentors Rebekah Cummings and Anna Neatrou in all things digital archive and metadata.



Figure 10 Ochre extensions from San Rafael Swell

4. Dualism by Design:

Val Plumwood defines the logical structure of dualisms as:

“a reaction of separation and domination inscribed and naturalized in culture and characterized by radical exclusion, distancing and opposition between orders constructed as systematically higher and lower, as inferior and superior, as ruler and ruled, which treats the division as part of the natures of beings construed not merely as different but as belonging to radically different orders or kinds”

Design upholds the nature/culture dualism through five characteristic features of dualism as Plumwood defines them: 1. Backgrounding (denial) 2. Radical Exclusion (hyperseparation) 3. Incorporation (relational definition) 4. Instrumentalism (objectification) 5. Homogenization or stereotyping. (Plumwood 1993) A design research practice and paradigm that values relationship with the non-human can begin to dismantle these systemic ways design is complicit in denying the pluriverse.

4.1 Backgrounding

Plumwood defines backgrounding as a complex feature in which the relationship of domination makes use of the other while also denying the importance of its contribution or making it inessential. (Plumwood 1993) In multiple design practices, across disciplinary fields, the designer backgrounds the material world — or the non-human. In this way nature is deemed inessential despite providing the very materiality of design outcomes and solutions. This backgrounding can be dismantled by centering relationship with the non-human in design practice and research. Or even going further to demand the non-human agency is vital to design outcomes and prioritizing the need of the non-human actors or users affected by design processes and production. Scholars like Marisol de la Cadena, Marilyn Strathern, and Donna Haraway illustrate relational epistemological approaches that can be applied to the production of knowledge in design research practices. There is so much more here to be explored and discussed beyond my presentation of this particular design research process.

4.2 Radical Exclusion or Hyperseparation

“Because the other is to be treated as not merely different but inferior, part of a lower, different order of being, differentiation from it demands not merely distinctness but radical exclusion, not merely separation but hyperseparation.” (Plumwood 1993) The nature/culture dualism is upheld by our radical exclusion and hyperseparation as humans from the non-human and this enables the designer to position

themselves as superior which leads to practices that enable the manipulation and exploitation of nature in the name of culture. Radical Exclusion also enables designers and systems of industrial production or resource extraction to create hierarchies of landscape and nature in order to determine superior and inferior conditions of 'wilderness' which can or can not be sacrifices for the needs of production. The design research practice I present here is dependent on my relation to Ochre despite the ways in which we diverge from each other as beings.

4.3 Relational Definition

Design upholds nature as a 'dualistically construed opposite' to the products of design by defining the non-human materials relative to human designers in terms of negativity and lack. Perhaps a design research paradigm that depends on relationship can allow designers to see how non-human materials have advantages that we desire, that they have abilities and agency beyond human ability. I'm particularly inspired by Simone Kotva in her talk for the Serpentine Gallery's symposium, *The Shape of a Circle in the Mind of a Fish: The Understory of the Understory* titled *An Enquiry Concerning Nonhuman Understanding: Mysticism and Plant-Thinking*. Kotva poetically describes the abilities of plants as surpassing that of humans in terms of patience and attention to the sun. Also related is Marisol de la Cadena's description of Runa as "human, but not only". (de la Cadena 2014)

4.4 Instrumentalism (objectification)

Design disciplines and practices have obliged the non-human "to put aside their own interests for those of the master or centre". (Plumwood 1993) Design is an explicit process of objectifying the non-human beings that we refer to as raw material or natural resource. Material ends are defined in terms of the master's ends, in my argument the human designer. Human-centered design has congratulated itself for this very tactic and used the centering of human needs as a justification and signal of ethical superiority to other forms of design practice. I believe a design research paradigm that enables alternative futures must being to center the the ends of the material, and to resist objectification of the non-human through relationship.

4.5 Homogenization or Stereotyping

Finally, Plumwood asserts that the 'dominating class must appear suitably homogenous if it is to be able to conform to and confirm its 'nature'. (Plumwood 199) This is most obvious in the human/nature dualism in which humans are a homogenous category of beings opposed to the multiplicity of non-human earth beings abundant on our planet. Design research practices must acknowledge diversity and heterogeneity in both humans and non-humans. Design disciplines have a history of centering normative definitions of 'good design' or universal standards of aesthetics and beauty that often exclude the realities of the global majority, BIPOC, women, LGBTQ+ or disabled communities. The objective design standards of the western/ colonial/capitalist design elite uphold a one-world world and anything that deviates the norm becomes immoral and misfit or even uncivil or dehumanized. In addition to amplifying the many human worlds in design practices and outcomes, design research practices can encourage recognition of the non-human and more-than-human selves that also hold many worlds and futures.

4.6 Solutions, Representations, Commodities

There are several other ways that I believe design upholds a nature/culture dualism that go beyond the formal features from Plumwood I discussed above. I don't have an orderly theory for presenting these

ideas, but I believe they relevant to creating design research paradigms that value relationship to the non-human.



Figure 11 Still from the film showing swatch extensions, USGS survey, and image of landscape — all descriptions of San Rafael Swell.

So often this relationship is sacrificed for the ‘solution’ in the process of design as “problem solving”. This process predetermines design outcomes as solutions that must fix predetermined problems. This focus on fixing gives inherent value and justification for design outcomes as worth any manipulation of material associated with the fixing to be done. In my practice with Ochres, there is no predetermined artifact to measure success, the designed products are emergent from the process while also centering relationship to material.

If a designer isn’t concerned with fixing a function as described above, they tend to fall in a category of representation and aesthetics. The non-human materials become only as valuable as their aesthetic potential. Often these forms of design ignore the politics of sourcing and labor. But they also create hierarchies of landscape beauty. That only certain landscapes determined beautiful deserve preservation or protection for their ‘wildness’. Ochres are not used in the products of my design process to create representations — they are what they are, to signify what they signify.

Design disciplines and designers are complicit in the commodification of earth beings and their experiences. It’s no surprise since product design or industrial design has evolved from the very development of capitalist markets. Design must resist the prioritization of capitalist values and

objectives and commit to the relationship with material beyond resource and potential for commodities and profit.



Figure 12 Still from the film showing design research process

5. Conclusion

The US Geological Survey accomplishes its total and complete conversion of earth beings into cash money through products like the MRDS, and it carefully monitors the national stockpile of material wealth. As an alternative, Unknown Prospect contemplates earth beings through their human and more-than-human stories and extends relational dimensions through design practice.

The Ochre practice I have introduced here is a process for establishing a design research paradigm that acknowledges and centers the relationship between human and non-human as one tactic for “dismantling and reassembling tools for alternative futures”. This particular installment at the San Rafael Swell is one deployment of a method to be repeated and iterated in this site and others as I continue to trace mining histories in geological time and place. Beyond the specific products of this design research practice, I have only begun to organize my thoughts regarding ontology and epistemology for design practice that goes beyond representation and contributes to the broader discourse on the relation between human and non-human. Perhaps in this way Unknown Prospect becomes a driver of design practice and design theory.

I believe design has a potential to redirect the identity of the designer (as self) and the relationship to material or the non-human (also, as self) and this can implicate a dramatically different set of worlds. Research through design as a form of knowledge production has the potential to reveal narratives of the anthropo-not-seen in past, present, and future while also questioning the authority of the document and systems of power to describe, archive, and catalog our material realities. *What if the design process began with the needs of the other, the more-than-human? What if it began with what the more-than-human has experienced and seen?*

BIODIVERSITY LOGBOOKS FOR AN ENVIRONMENTAL PEDAGOGY OF CARE

Serena Pollastri, Liz Edwards

Over the past century, botanists and educators have observed a sharp decrease in people's ability to notice and identify plants in their environment, especially among urban populations in the West. This phenomenon has often been referred to as "Plant Blindness" or "Plant Awareness Disparity", and is caused by a combination of factors - some of which are related to reduced opportunities for engagement with nature and the increase in the use of digital technology. As progressive disconnection from the environment starts from an early age, early years and primary education play a crucial role in determining people's connection or disconnection with the natural world around them.

In the UK, the ability to identify and describe plant structures and functions is part of the learning outcomes for the science programme of the National Curriculum for children aged 7-8 years old. While Government guidelines on the implementation of the curriculum do encourage children's engagement with the natural environment as a relevant learning activity, in practice most of the teaching and learning about plants and their habitats relies heavily on providing worksheets and diagrams. These resources can help students understand key concepts and vocabulary, but also infer a reductive view of the environment when removed from the context they describe. When used in isolation, they also promote a specific positivist epistemology based on naming, defining, and dividing into categories, and dismiss any other form of knowing that do not fit within the provided framework. And despite the official recommendations and teachers' best efforts, such resources are indeed often used in isolation. In the UK, statutory tests (including SATs at the end of primary school) are used to evaluate not only the students, but also the school they attend. Teachers are increasingly forced to narrow down the scope of the curriculum and adjust it to maximise test scores, to the detriment of explorative, field based, experiential modes of learnings.

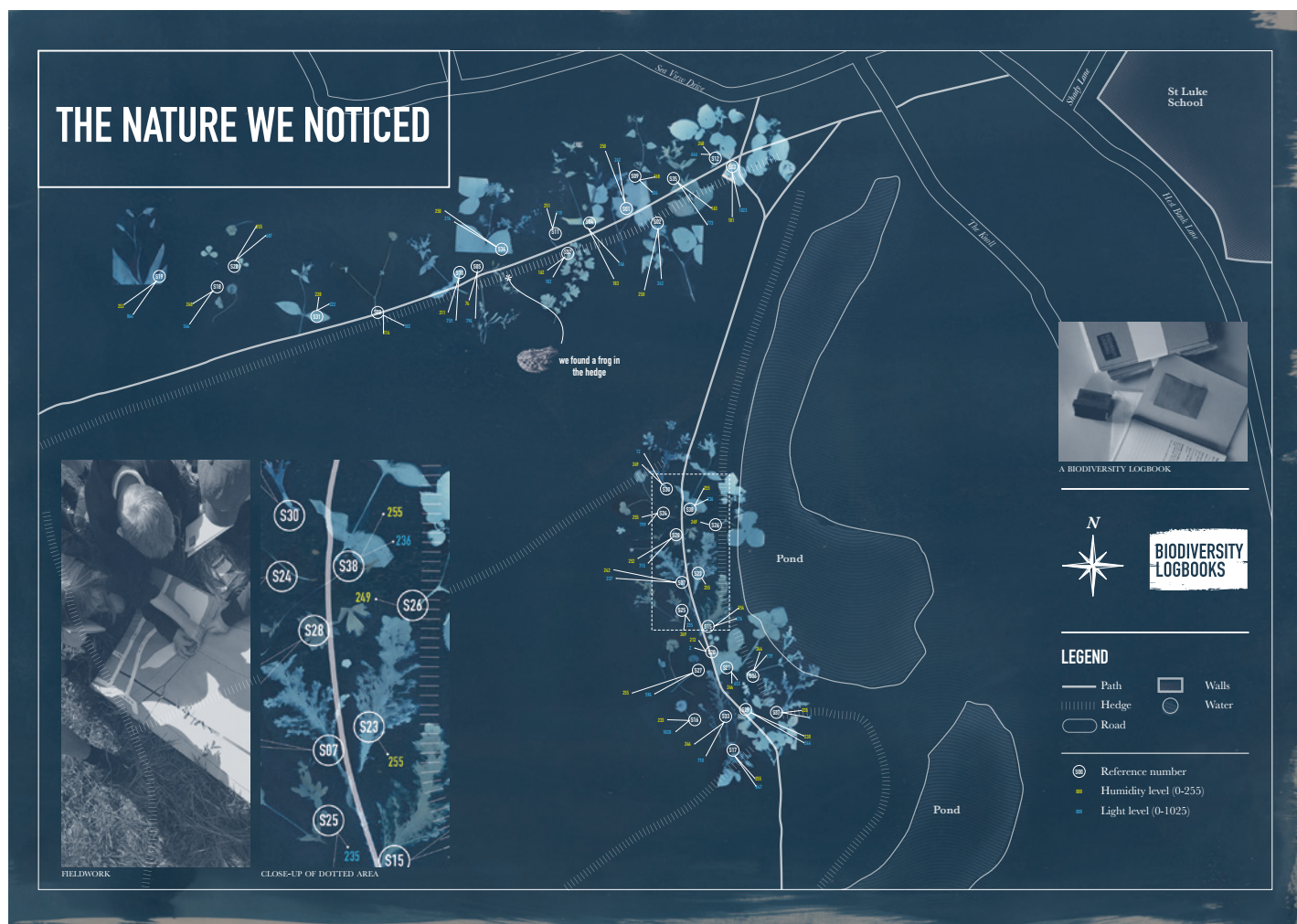
The richness and complexity of the botanical world means that plants rarely look exactly like the models that are presented in primary school's worksheets, and certainly not throughout the year. There is a strong difference between 'declarative' knowledge (being able to talk about a topic) and 'functioning' knowledge (knowledge that can be put to work). Even students who perform well during the tests, might still lack the skills to engage meaningfully with plants in their environment.

Inspired by contemporary approaches to environmental pedagogies of care, we worked with a primary school in the North West of England to design a programme of activities and a set of tools for learning to notice plants in their environment. The Biodiversity Logbooks project was initially piloted with 44 children aged 7 and 8 years-old, and has since been extended to other schools in the area. A key objective of the project was designing ways to move beyond context-void, 'worksheet-based' ways of approaching knowledge about plants, towards experiential education, attentiveness and emotional engagement with place. These are core principles in environmental pedagogies of care, which focus on direct experience of nature and creative place-base interventions aimed at developing attentiveness in children and a sense of care for their surrounding environment.

In this project we designed an intentionally slow activity of environmental data visualisation that required students to spend time outdoors with plants. Each student in the pilot project received a Biodiversity Logbook: a kit which included a logbook with plant and leaf study sheets to collect and describe samples during field explorations, open-source sensors programmed by students in class, and the materials necessary to produce cyanotypes impressions of the plants they collected. Cyanotype is one of the oldest photographic techniques, used in the past by naturalist to record impressions of specimens. It involves exposing photosensitive paper to the sun. It takes on average between 5 and 30 for the impression to develop, and a careful positioning of the sample is crucial to produce a clear impression showing key features of the plant. Making a cyanotype involves looking carefully and spending time outside with the plant.

The Biodiversity Logbook kit provide students with prompts to notice and record observations and data, focussing on differences and similarities between various environments and plants. Students can do so through a variety of modes of expressions that are used in conjunction throughout the activity: written observations, checklists, data entry forms, annotated drawings, and cyanotypes. This invites them to explore different media and reflect on what each mode captures and what it leaves out. It also provides space for discussing different types of knowledge, including how certain species can give us environmental clues, and traditional uses and beliefs of certain plants.

One of the key aims of environmental pedagogies of care is to promote long-lasting meaningful connections between people and their everyday environments. Several months after the initial pilot of the project, we met with the first group of children and teachers involved, who used the concepts of looking closely and noticing as a guiding principle for the school year. We learnt that children have been actively working on a number of small growing projects, and that observing plants and how other creatures (bees and bugs) interact with them is a core aspect of the activities. And importantly, children have been paying more attention to the plants that can be found in their environment, and have been proud to share their observations with their families.

**CAPTION:**

This map shows the cyanotypes of the plants collected by **Year 6 students of Slyne-with-Hest St Luke Primary School**. It also includes the information about the plants habitats, which was recorded through sensors and direct observation. The fieldwork was conducted on **30 June 2021** in **Slyne-with-Hest**.

Biodiversity Logbooks is a collaboration between Lancaster University and primary schools and education facilities in Morecambe Bay. It investigates an integrated learning approach combining the use of cyanotypes, drawing practices, fieldwork, and creative computing to get to know plants in their environment.

This project is run by
Dr Serena Pollastri and Dr Liz Edwards.

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Accelerator Account.

Activating Design for Biodiversity

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This paper documents a research project that has taken place over five years in the Emily Carr Industrial Design program. Our aim was to uncover methods to connect designers with nature, and to gain insight into how understanding our interdependence might change the way that designers work and prioritize. The act of practicing design with more-than-humans has effectively challenged human-centred design and activated deeper awareness of the implications of our design work. Over 160 Industrial design students, and 6 faculty members have been re-learning our place in the world as *dependent among*, and *interdependent with*, all other forms of life. Our research affirms that this shift in worldview is accomplished through direct, visceral engagement with nature and forms of wildness that are found when we slow down and wander outside of our human-made environments. External guests, including our more-than-human partners, prompt designers to care, to reconsider daily rituals, to re-language and to tell new stories. This engagement opens pathways to a plurality of views and approaches, and seeds a shift in priorities. Recalibrating practices in this way illuminates human interconnection with animate and inanimate beings, highlighting our deep relationality and reliance on the natural world in everything we do. Several questions guide our research. How can design include the presence and voices of more-than-human beings in our processes? How can we establish the importance of more-than-human stakeholders in decision-making? What forms of pedagogy engage new learners? How do students re-interpret these teachings and show us new ways of knowing? How might this activate different approaches to design?

Interdependence, Relationality, Multi-species, Post-Anthropocentric

A. Introduction

This paper documents a research project by the Design for All Beings Research Group that has taken place over five years in the Emily Carr DESIS (Design of Social Innovation for Sustainability) Lab, and the Industrial Design program. Our aim was to uncover methods to connect designers with nature, and to gain insight into how understandings of interdependence might change the way that designers work and prioritize. We speculated that practicing design with more-than-humans would challenge the profession's humanistic and human-centric roots. Our *Design for Biodiversity Project* begins to redress ecological misunderstandings that permeate culture in the Modern West, inclusive of industrial design education (St. Pierre 2019).

Through a series of projects, we have been re-learning our place in the world as dependent among, and interdependent with, all other forms of life. Our findings affirm along with others (Jickling et al. 2018) that this shift in worldview is best accomplished through direct, visceral engagement with nature and forms of wildness that are found anywhere, and are not limited to spectacular nature settings. The challenge of bringing this form of engagement to industrial design studio classes is a nuanced one.

The imperative for Modern Western societies to lighten the impact of our human presence on earth is well understood (Harvey 2021; Lade et al. 2020). Biodiversity loss, climate change, and ecotoxicity contribute to a growing awareness that we are collectively committing severe damage to the environment, or ecocide (Siddique 2021). To counter this, we call for a profound re-imagining of industrial design's roles and relationships with material extraction, manufacturing processes, and consumerism. This deep shift in priorities can be empowered by learning to appreciate and understand biological interconnectedness.

This paper focuses on how we enact new ways of thinking, learning and doing both inside and outside of the design studio. Students and faculty uncover new ways to notice, attend to, and value nature. We attempt to de-centre the human, opening pathways for designers to reconsider their relationships with nature and each other (Escobar 2020; Fletcher et al. 2019). We began with a number of questions. How can design include the presence and voices of more-than-human beings in our processes? How can we establish the importance of more-than-human stakeholders in decision-making? What forms of pedagogy engage new learners? How do students re-interpret these teachings and show us new ways of knowing? Ultimately, RockFish, Ants, Kelp, Berries, Rice, Urchins, Cedar, Snow and Polypores and a multitude of other beings helped us grapple with these questions.

This research sits within ECU's Design for Social Innovation and Sustainability Lab (DESIS) and has been partially funded by ECU's Ian Gillespie Design Research Grants.

B. Community

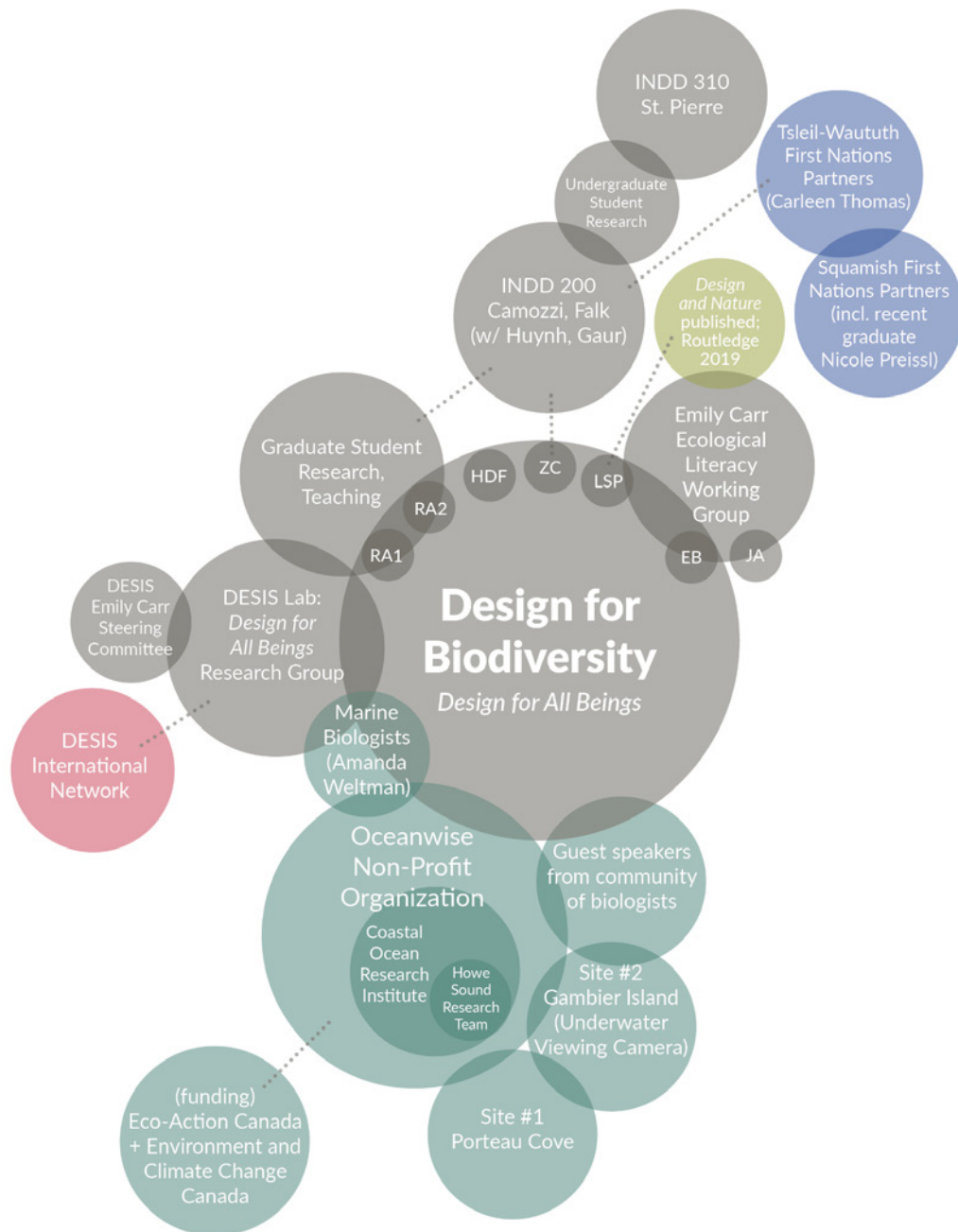


Figure 1 Design for Biodiversity Project Map illustrates the connected relationships within the growing network.

Over the course of the project the network has expanded to include 160 Industrial design students, six ECU faculty members, external guests and a multitude of more-than-human beings. At its core, this work values the need for de-centered, non-hierarchical, flexible and responsive approaches in order to meaningfully support eco-systems, organisms, and land. This work calls into question the way that contemporary design has been harnessed by corporate, political, and industrial interests (Boehnert 2018; Fletcher et al. 2019).

This work has taken place on the traditional, ancestral and unceded territory of the Coast Salish peoples – Squamish, Tsleil-Waututh and Musqueam Nations. For ‘time out of mind’, Indigenous communities have taken care of this land and all the beings are part of her; the trees, the rocks, the rivers and everything in between (Thomas, 2019).

Over the years, a variety of guests have returned to the studio to help us develop new relationships. These guests bring biology expertise, cultural questioning, and traditional Indigenous wisdom. This pedagogy highlights a plurality of views, countering Modern Western tendencies to interpret life through a singular lens (Escobar 2020).

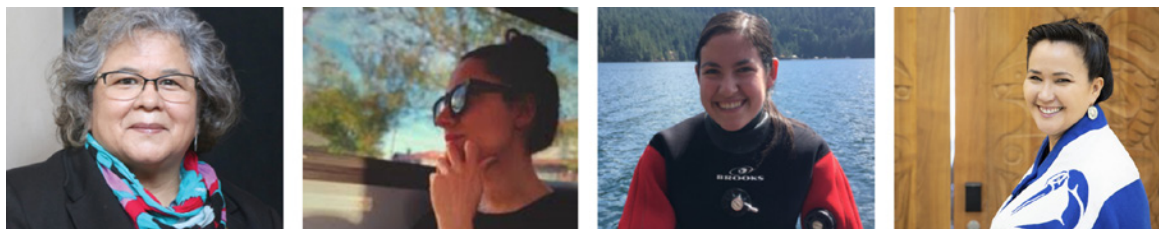


Figure 2 Relationships with contributors include (shown from left to right) Carleen Thomas Indigenous Leader, Tsleil-Waututh Nation; Reyhan Yazdani Teaching Fellow, interdisciplinary artist and designer; Amanda Weltman Marine Biologist; Connie Watts Associate Director of Aboriginal Programs at Emily Carr.

Carleen Thomas, a leader from the Tsleil-Waututh First Nation (now Chancellor of ECU), told us there is an “interconnection between the health of a culture and the health of the environment” (Thomas, 2019). Thomas's family and nation reside on Burrard inlet, a heavily industrialized waterway that serves Vancouver, and one of its fjords, Say Nuth Khaw Yum. Thomas weaves stories of care, history, and biodiversity in relation to these lands (səlilwət). The contrast between these two landscapes supported our students in imagining biodiverse histories and futures.

Connie Watts (Nuu-chah-nulth, Gitksan and Kwakwaka'wakw Ancestry), Associate Director of Aboriginal Programs at Emily Carr, reminded students that beings feel and perceive the world in ways we will never understand and that it is necessary to remember humility. “Everything is spirit,” she said (2020).

Reyhan Yazdani brought insights about ritual and family in the context of making and eating food. She helped our students question how we connect with each other, and opened wonderment about how moments of connection could be repeated to become daily rituals (2019). Yazdani opened conversations about how we form relationships, and how simple rituals are all around us.

Amanda Weltman, a field researcher with Ocean Wise Coastal Ocean Research Institute brought a Western Science lens, sharing her time spent below the surface of the ocean, and Citizen Science initiatives in the region (2018; 2019; 2020). These included her own Rockfish Abundance Surveys, Eagle Counts, and insights from her outreach work between residents and coastal bear populations.

Depending on where they were in the Industrial Design program, students were exposed to a selection of these guests. Each guest was aware they were an entry into, or pivot, within the project for some students. The Design for Biodiversity project evolved over time, building and deepening understandings that led to a wide range of outcomes that span disciplines, cultures and knowledge. Our studio classes have created stronger relationships for us, and for them.

C. Pedagogy and Practice

Graduate	Earthbond Prototyping				GSMD 500 Graduate Studio 2019 <i>In and Out of Doors</i> , thesis by Andy Simon	GSMD 500 Graduate Studio	
						Roving Designers (student initiative)	
4 th year							
3 rd year						INDD 310 Design with More Than Humans	INDD 350 Decolonizing Material Practices
2 nd year	SOC202 Ecological Perspectives in Design <i>(continuing)</i>		INDD 200 Reefs, Rituals and Rockfish Project v.1		INDD 200 Rituals & Biodiversity Project v2	INDD 200 Design for Biodiversity Project v3	
Faculty	Design for All Beings Group - Porteau Cove		Design and Nature: A Partnership, (press: Routledge)				
	2008	2014	2017	2018	2019	2020	2021

Figure 3 Permeating the Design Programs: Design for Biodiversity touched the ECU curriculum at different stages, from faculty research, through to the second year introductory level, and then into third year courses. It included faculty research in the form of books, projects, and papers.

This project has taken place over an expanse of time that allowed for contemplation and reflection, and supported a shift in worldviews. There is a six-year span from when the Design for All Beings group (St. Pierre 2014) first asked why more-than-human beings were left out of conversations about social innovation, to this paper, which begins to describe applied methods for including all beings. There have been shifts in understanding and in pedagogy that could only have taken place over time. Faculty focus has moved from designing artifacts to support another species, to finding ways to learn about and deepen their relationships with other beings. Our network of collaborators has expanded to include the Otago DESIS lab in New Zealand, bringing Maori perspectives to complement that of our local indigenous advisors.

Students also have time between courses in second and third year, nearly a year, to digest information and experiences and then further develop their own practices. In the third year we see students internalizing our pedagogy and shared practices, and reflecting them back to us in new ways. By fourth year, students like the Roving Designers (Grauer 2021) were leading other students, independent of faculty. The following section elaborates on some of our pedagogy.

Some of our more specific pedagogy include:

- *teach slow, learn slow.* Slowing down gives students the opportunity to step out of the design process they know. A key component of slowing down in our classes were contemplative practices (St. Pierre 2019). In some situations, students were given written prompts (Simon, 2020), to start their exploration of a local intertidal zone. These asked students to breathe slowly and situate oneself in place. In other situations, Louise St Pierre often led daily meditations for her students, then made space for them to learn

mindfulness. This changed the tempo, opened awareness, and helped us to *teach slow, and learn slow*.

- *Celebrating sensory ways of knowing.* The rhythm expressed through these daily meditations was mirrored in class expectations. We asked students to return to a place again and again, investigating senses but also to question how daily feelings and emotions changed what they sensed, and how they noticed (Falk 2012). This was an opportunity for students to integrate a new awareness of the natural world into their design process.

“I explored creating a community with non-human lifeforms, such as birds and flora. By opening the space for a non-verbal communication by existing in the same space and allowing the environment to envelope my senses.” (Anonymous student reflection 2020)

- *‘explore-how-to-explore’ nature.* Many students needed to re-learn how to pay attention to nature (St. Pierre 2019). Together we designed devices and actions that took them upside down, into crevices, outside at night and into the water, all aimed at an immersive sensory engagement with nature that supports relationship finding and building. Once we gain a personal and felt understanding (Bai 2001), we can question current ways of doing and being, and articulate new futures. This can lead to post-humanist understandings of our human situatedness among other beings, within a community of others, instead of above all others (Harraway 2016, Plumwood 2009/2013).

“I now see my local parks as whole ecosystems full of different coexisting life forms. I think the most essential part of gaining empathy for non-human creatures is through practicing awareness and observations” (Anonymous student reflection 2020).

- *re-imagine care and support.* In an early conception of this project, we focused on directly attending to species needs. This means we still saw ourselves *above* these species. As we worked through the processes, we began to gradually rethink the tendency for humans to see ourselves as the solver of problems or the saviour of others. In many cases, what other species need is for us to design tactics to get humans out of the way.
- *re-languaging.* Regularly referring to rocks, trees and eagles *as beings rather than things* (Kimmerer 2015) supports a widespread relationality that brings the creative frictions of diverse more-than-human stakeholders to our decision making processes. It takes a while to get comfortable with saying “her bark is quite thick”, instead of “it’s bark is quite thick”, but the results are powerful.

Often I push them out the way, I shove rocks that make my garden path uneven, I cut branches that are at eye level. But whose habitat is under this rock? What if this branch enjoys getting me wet? Who am I to decide that these beings are less important because they don’t fit my interpretation of a garden. Can my garden be for more than just me? (Camozzi Personal Journal, 2016)

- *Integrate story-telling and time.* Within our classes we shared a constellation of methods for students to explore. Storyboarding, prototyping with the land (Camozzi 2019/2017), bodystorming (Schleicher et al. 2010), animated GIFs, low-fidelity video prototypes,

meditation practices, and shared prompts (Chisholm, Falk, Kozak 2020) are some of the methods offered to students. Centering storytelling in the design process creates opportunities to see interconnections, as the students must show their designs in action and in place. A sequence of events, frame-by-frame in a storyboard, asks us to reconsider, communicate, research, and design with respect to the timelines of nature. Stories, and telling stories, are also a way of bringing ourselves into other points of view. In second year and third year studios we specifically asked students to storytell about their own repeated actions, or daily rituals.

- *Frame the outcome as a daily ritual.* We used ritual as an entry and grounding activity within our courses. We defined ritual as deliberate and focused moments of attention to recurring phenomena. ‘Temporal’, ‘malleable’, ‘static’, ‘slow’, were some terms students used to describe day-to-day rituals. Students saw skipping stones across the ocean, sinking your feet into the surf, and drawing on sand as rituals to inspire their project directions. When students began to question what a ritual was in their lives they began to ground their work and its impact in daily practice.
- *Wander outside.* Wandering outside preempts design processes that are tied solely to drawing, prototyping, and sitting at a desk. Faculty strove to “[build] the natural world into every class meeting and... encourage care of the more-than-human neighbourhood as part of class expectations” (Ford & Blenkinsop 2021, p.6). Students would go to the beach, the local park, and the aquarium. They did this during class field trips, after class in small groups, or alone to address homework prompts. Students often returned again and again to a selected *sit spot* (Heimbuch 2018), their chosen place to slow down or to begin their wander (Simon, 2020). Whether travelling up the beach or into the water, *wandering outside* reframes our thoughts. “The waves washing over my toes tickle, I wonder if my toes tickle that wave back?” (Anonymous student reflection 2019). Some students internalized this practice, incorporating wandering outside in many of their later projects.
- *Experiment with ways to embody* - Knowledge that is held in relationship with nature is strongest when embodied, as many Indigenous communities know deeply (Akama & Yee, 2016). If we embed these learnings deep enough, away from surface level ‘thinking’, it can affect our decision making (Bai 2001). *How* we know changes *what* we know; challenging design’s existing ways of thinking and being. Again, we leaned on storytelling, sometimes through species cards that prompt dialogue (Lundebye 2019), as well as moving through bodystorming and experiential role play (Camozzi et al. 2020). Cards asked students to act as starfish, kelp and killer whale, in activities that demonstrate the interplay within an ecosystem. Students learn through their entire bodies rather than solely with their heads or hands, literally crawling, and jumping around a room. This was practiced over time in the classroom. It began to feel natural, and supported a shift in how all of us act, think and feel. This role play carried into the third year course where we asked students to design species cards for themselves. Species cards and the associated role play is embodied learning that declares that we, humans, are also a species. We shuffled ourselves into the deck like every other being.
- *Highlight a plurality of views.* A plurality of views counters Modern Western tendencies to interpret life through a singular lens (Bai 2004). As discussed above, cyclic and periodic dialogues with guests from Indigenous communities, from the sciences, from other students, and from the natural world, built relationships that span disciplines, cultures

and knowledge. Inspired by this pedagogy, students began to shift their perspective about who has agency. Third year industrial design student Danika asked “What does the tree see when the tree sees me?” (Oystrek, 2021).

- *Incorporate space for reflection, flexibility and play.* Interrupting the typical demanding pace of a studio course makes room for students to slow, revisit, and reconsider how they might carry out their work. The back and forth movement from indoor to outdoor, immersed in nature then enclosed in the studio, was central to our planning. Students need time to consider the meaning of what they have noticed. Reflection became collaborative, students talk and sketch together, sharing stories and interconnections. At times it also became analytical, like when third year students map the breadth of systems and networks, a practice that highlights multiple relationships among many beings.

“I think exploring this freedom [] in a way, made me improve how I organize my brain and ideas and be more patient and resilient to come up with a more desirable outcome.” (Anonymous student reflection 2020)

- *sketch prototypes* - students created prototypes and took them outside for experimentation, whether to the shore, the alley, the wood or the backyard. Testing outdoors is very memorable. Imagine sitting in the intertidal zone letting the waves envelope you. Or creating games for crows on your windowsill that they turn their beaks up at. Prototypes spawn more prototypes directly on location. Students reflect and even meditate while the waves wash over a broken idea. Letting go or evolving ideas becomes much easier when you have a richer awareness of the relationships in your surroundings. Designing for Biodiversity requires this agility, and practicing outdoors builds it.



Figure 4 INDD 310 student Kenneth Boediman moves at night as an ant.

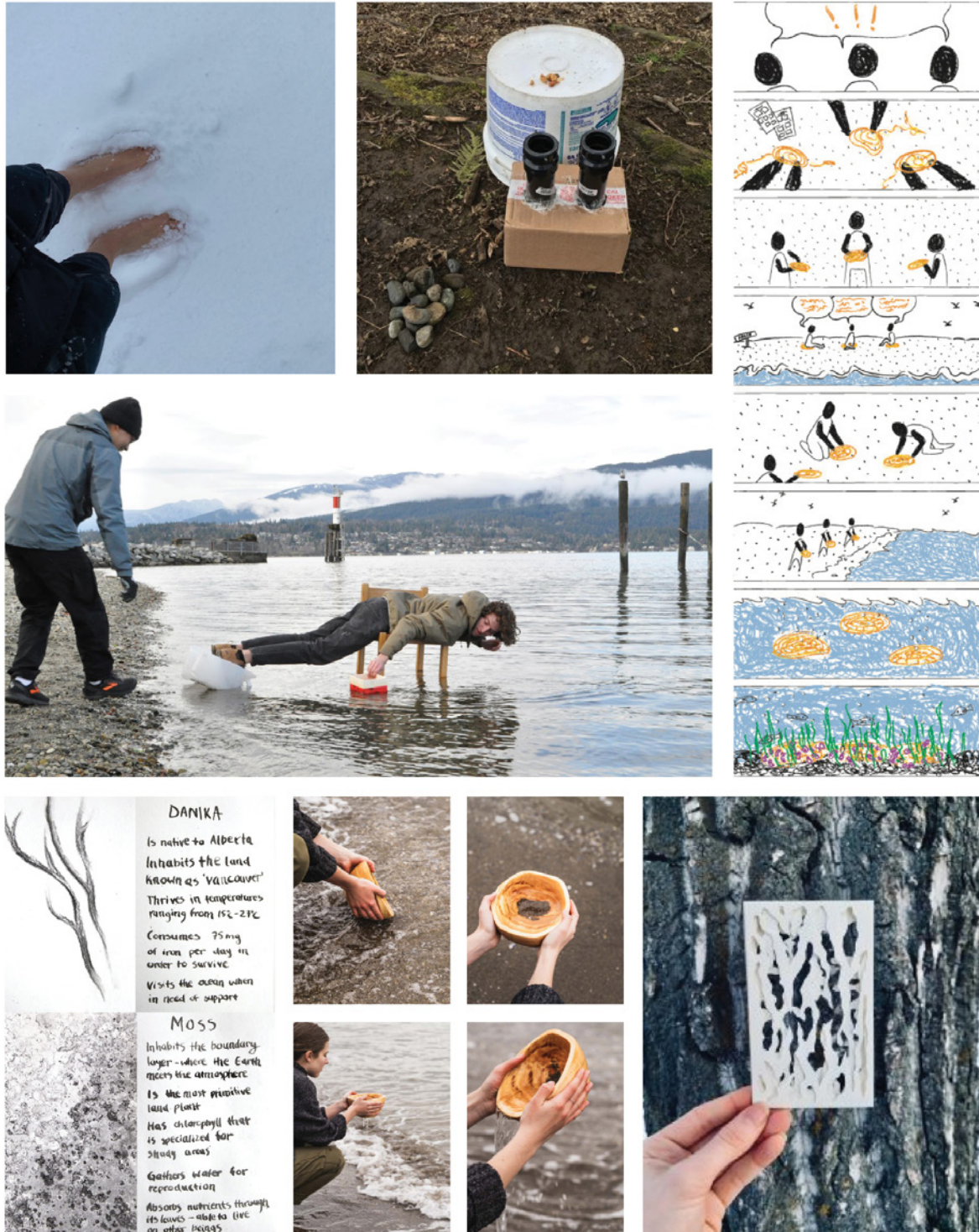


Figure 5 (Clockwise from top left): Third year student Lucia Ponce Laresgoiti wanders outside; propositional prototypes by Andres Somesco, third year; storyboards INDD 200 by Aisha Nasution and Claire Ko, INDD 310 student Ingrid (Dee) Van Zyl explores tree bark through making; documentation of a ritual at the water's edge by Danika Oystrek and Aaron Lin for INDD 200; species cards by Oystrek created in third year; INDD 200 students test their prototypes in the ocean.

D. Conclusions

Robin Wall Kimmerer (2021) talks about “activating us to live differently in the world, [and how] that is medicine” for us and for all beings. Our forays into activating design with more-than-humans felt like medicine. Students and faculty began to enjoy slowing down and wandering outside of our human-made environments and stretching our points of view. Our students showed us, as they articulated their growing connections with animate and inanimate beings, that experiential immersion is a particularly effective pedagogy for learning about the natural world. It is also a powerful way of remembering. They showed a new understanding of deep relationality and reliance on the natural world in everything we do. It leaves us increasingly committed to reach out for more-than-human engagement throughout the entire design process. We have re-imagined how to belong with other species .

In the span of this project, books have been published (Fletcher et al. 2019), methods explored and pedagogies deepened. As a result, our awareness of human interdependence with the natural world has begun to permeate everything we do. Design research has been reinterpreted by students in their fourth year, new pedagogy has been developed by participating and adjacent faculty, and student collectives returned to feed new ways of knowing back into our research and classrooms. Our work only begins to indicate the plurality of practices that support new forms of world-making in support of biodiversity. This research project allowed for an expanded range of design outcomes that challenge conventional notions of what design should do and should be, like the design of daily rituals, new foods, social innovations, musical instruments, species cards, contemplative practices, and play.

In closing, we note that much of Zach and Charlotte’s pedagogy in INDD 200 was grounded in our local intertidal zone. Between high and low tide, this place usually contains a rich abundance of shellfish and seaweeds. But during the summer of 2021, the Pacific Northwest experienced an unprecedented heat dome, where an estimated over 1 billion sea animals died (Yurk, 2021). Sea stars, sea cucumbers, mussels, rockweed, butter clams and many others were cooked and washed ashore. Our beaches smelled of death. Bivalves filter and clean the water and provide food for many species, so scientists speculate that there may be long term ecosystem damage. All of us, students and faculty who have taken on this project are reminded why this work is so important. This impels us to continue to invest in learning how to design and live in a healing relationship with this beautiful Earth.

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About the Authors:

Zach Camozzi – I was born in Toronto, central Canada, to Italian-Canadian and French-Canadian parents. As a child, my family moved to the West Coast and its ocean, mountains and dense rainforests. On the lands of the Shíshálh (Sechelt) and Skwxwú7mesh (Squamish) Nations, my love of nature was nourished. The dominantly white, English speaking, cis, working class culture (of which I identify) influenced choices like studying Engineering and working in Outdoor Education. I straddle, struggle and continue to decolonize myself and my practice through my work as an interdisciplinary designer teaching in the Faculty of Design and Graduate Studies at Emily Carr University. I primarily research Nature's connections and influence on design. This allows me to practice within recreation, education and health. In Emily Carr's Design for Social Innovation Lab (DESIS) I develop pedagogy that de-centres humans. Within the Health Design Lab, I activate outdoor spaces to support children with learning differences. With the British Columbia Children's Hospital Research Institute, I intervene in outdoor play, adding risk in early childcare for development.

Charlotte Falk –Raised in a middle class family in Treaty 6 territory by my mother (of English-Canadian descent) and my father (of German descent), I grew up in a family of scientists, with an early interest in making and art that ultimately led to design. This trajectory was in part through my maternal grandmother's infectious interest in early Canadian antiques and design. I am a settler, an able-bodied, cis-gender, white woman — identities I continue to interrogate and carry with me into the spaces of my practice. I am an interdisciplinary designer, educator, artist, and (rookie) gardener with a practice spanning industrial design, communication design, public art and architecture. This interdisciplinary practice is reflected in my teaching: at Emily Carr University of Art and Design as a sessional lecturer, and at Langara College as a part-time instructor, both located in Vancouver on the unceded territory of the Coast Salish Peoples - Skwxwú7mesh (Squamish), Stó:lō and Səl̓íl̓wəṭəʔ/Selilwitulh (Tsleil-Waututh) and x̱məθkʷəy̓əm (Musqueam) Nations. My research investigates design processes in relation to materiality and technique, with emphasis on pluralistic, participatory approaches to design.

Dr. Louise St. Pierre – My French-Canadian and British-Canadian ancestors were farmers and makers on the original lands of the Cold Lake First Nation people in remote Northern Alberta. I grew up as a cis-gender white woman with a connection to the land and to cycles of nature that has permeated my research and my life, from the development of early ecological design methods (Okala.net), to developing classes in ecological design, and to being arrested in climate protests. My recent efforts to heal the relationship between Western Modernity and Nature include founding the Design for All Beings Research Group, teaching Design with More-than-Humans, and publications such as *Design and Nature: A partnership* (Routledge 2019). My approaches to embodied, relational, and experiential pedagogies are informed by my deep engagement with wisdom traditions and contemplative practices.

Regenerative Practice as Transformative Design Framework

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Regenerative practice is a theory of transformative practice which centers reconnection and being-in-relation as key practices of eco-social change in societies of the global North. It is a practical theory of social change that theorizes the interlinking of the earth's natural ecosystem, social relations and individual well-being. The objective of regenerative practice design is the re-centering of human environments, learning environments, pedagogies, and services towards reconnection, decolonization, and just action now. The short paper outlines a design framework for the emergence of reconnection and being-in-relation as processes that support the decolonization between humans and with more-than-human nature.

Eco-social transformation; relationships; nature; decolonization

1. Introduction

Regenerative practice is a theory of transformative practice which centers reconnection and being-in-relation as key practices of eco-social change in societies of the global North. It is a practical theory of social change that theorizes the interlinking of the earth's natural ecosystem, social relations and individual well-being. This short paper outlines a design framework for the emergence of reconnection and being-in-relation as processes that support the decolonization between humans and with more-than-human nature (Or, 2021).

Regenerative practice builds on the understanding that a paradigm shift in the relationship of humans to other humans and to more-than-human nature is necessary to achieve global eco-social transformation. The concept of regeneration defines processes that restore, renew, or revitalize their own sources of energy and materials. Different applied fields are currently trying to remedy the extractive relationship of humans with more-than-human nature that has developed in capitalist-modernist civilization during the

last 1500 years with regenerative approaches. These regenerative approaches understand the planetary crises of the Anthropocene as a result of this extractive relationship. As a hot topic, regenerative approaches have been emerging across a range of fields including sustainable agriculture, urban planning, or landscape design, regenerative leadership, regenerative economy, and regenerative business (Eisenstein, 2018; Pedersen, 2018; Hutchins&Storm, 2019; Sanford, 2020).

2. Regenerative Approaches

Regeneration is currently also being reinvented in new and creative ways to also address the regeneration of cultures, societies and human relationships. The key qualities of regenerative culture are connection and being in relationship. Regenerative approaches assume that transforming our relationships will inevitably lead to changing the way we live, choose, and consume in the world. They recognize that humans are nature themselves (Reed, 2007) and that humanity and more-than-human nature are in a mutually beneficial relationship (Mang&Reed, 2012; Whitmee et al., 2015). Regenerative approaches to culture and society are not really new: they have existed for 200,000 years in the form of bio-regionally adapted cultures that inhabited their respective ecosystems and created sustainable communities (Wahl, 2016). Importantly, however, in current reiterations of the concept, its indigenous origins are being lost, thus repeating a classic cycle of appropriation of indigenous knowledge and practices. Indigenous, alternative, and first nations epistemologies, worldviews and practices have for thousands of years framed nurturing relationship between humans, nature, and others as central to human and planetary health (Hanh, 2008; Lwanga-Thomson, 2015; Brazier, 2018; Cull et al., 2018; UNNBQ, 2019; Mayaka&Truell, 2021). As part of a decolonial agenda, the origins of the concept in their full scope need to be acknowledged (Young& Yunkaporta, 2021). In addition, I want to acknowledge the important work done by oppressed communities and activists in advancing practices and theorizing them (Black Lives Matter, 2020; Jade, 2020; Piepzna-Samarasinha, 2018). My thinking here builds on the work done by this large collective of communities and activists for social change.

My interest is to understand how we can make the concept of regeneration work for the 21st century, without appropriating it, without decontextualizing it from its indigenous roots, and without erasing its radical scope. What could a third kind of regeneration look like? I want introduce regenerative practice as a framework that attempts to meet this challenge. Regenerative practice as a framework addresses specifically the connection between inner and outer transformation. Its objective is to facilitate the reconnection to one's embodied self, other humans, and more-than-human nature as practice of political change. How can we then translate this framework into design processes to be applied in the design of social interventions?

3. Regenerative Practice as Transformative Design Framework

The objective of regenerative practice design is the re-centering of human environments, learning environments, pedagogies, and services towards reconnection, decolonization, and just action now. The regenerative practice design framework is process-oriented and aims to create conditions, structures, and processes for the emergence of salutogenic properties (Wahl, 2016). Thus, rather than teaching or prescribing, structures and processes that promote regeneration are intended to facilitate collective emergence, i.e., the design structures and processes are intended to enable individuals and communities to reconnect, relate, and see themselves as part of a larger web of life. The approach foregrounds the radical reach of a biocentric, care-focused perspective. A culture of caring and self-care as "planetary

transformational work," as well as an awareness that inner healing and outer political change are interconnected, sit at its core.

Regenerative design addresses three dimensions of practice: The first dimension – reconnecting – focuses on the reconnection of individuals with their embodied selves, with other people and with more-than-human nature, and foregrounds being-in-relation as a transformational practice. This is the very essence of regeneration work. Extending our awareness of connectedness from just our nearest and dearest to more-than-human nature and the whole of human society means including all the people and communities from whom we have been separated in our empathic resonance. Practices of reconnection include activities that activate and reconnect at the cellular level and at the level of immediate physical, felt, and emotional experience. They aim at embodied “nature-feeling” and “self-feeling” (Petzold, 2019). The intervention methods of reconnecting and being in relationship can take place in individual work or in a group. They include nature therapy, nature-based social work, ecosomatics, expressive writing, creativity therapies (expressive arts), and other integrative approaches.

The second dimension of regenerative practice – decolonization - is about reflecting on the social structures of inequality and injustice that separate people from each other and from more-than-human nature. Decolonization in practice means questioning the invisible and visible practices and structures that maintain inequalities, and dismantling them. Decolonization means coming into just relationship with other humans and with more-than-human nature - be it oppressed communities or dying rainforests. It is about eliminating systems that don't work and designing systems and policies of care and reciprocity. People who seek to decolonize explore social and anthropocentric structures of inequality and injustice and recognize how these structures are embedded in their bodies, minds, and hearts.

Practices of decolonization can relate to the communities and places we work with (e.g., colonial naming in neighborhoods or urban food deserts), to our profession (e.g., institutional structures of power and domination, demarcation and division, colonial continuities), or to ourselves (e.g., self-image and other-image, images and perceptions of nature, capacities and inabilities for empathy, our own experiences of privilege or exclusion). The work of decolonization requires reconnection as a prior step, because in order for us to truly see and understand inequality, we must be able to perceive the pain of oppression experienced by ourselves or others. Methods that enable decolonization include participatory and emancipatory methods, social justice, political somatics (Menakem, 2017), emotional and healing justice (Haines, 2019), restorative justice, transformative justice that addresses systemic transformation (Dixon& Piepzna-Samarasinha, 2020), and design justice (Constanza-Chock, 2020).

The third dimension of regenerative practice, Just Action Now, focuses on creating just structures in decentralized nodes of change, where change is accomplished in real time through direct actions or events, in initiatives, or in community groups. The goal is to put the first two phases into practice by creating structures for action in the present.

Regenerative practice no longer aims to create conditions under which change can - possibly - occur in the future, but emphasizes that change must occur through action in the now. Thus, we cannot wait for governments to address this change first. Rather, it is community action that initiates change, and governments may follow that action. We "Do It Together" (DIT), decolonizing internalized structures of governmentality that manifest in political passivity and a lack of belief that we can change things ourselves. By doing it together, we build on existing knowledge, expertise, and practices in our communities. By coming together, we have collective impact. In this way, implementing actions for eco-social change simultaneously serves as a tool for individual and community regeneration. By pointing out socially unjust and anthropocentric structures and working to change them, we empower ourselves. There are so many opportunities to act right now, and everyone is needed. The changes achieved then directly

impact the life experiences of everyone involved. By working with others and witnessing the change we have fought for, we experience the immediate, embodied benefits of those changes: better connections, relationships, well-being, and empowerment.

4. Conclusion

In conclusion, the regenerative practice approach presents a vision for new directions in the design of human environments. By practicing and developing regenerative practices, we take responsibility for learning from the systemic mistakes of our past and orienting our designs for society toward a regenerative future. Eco-social transformation, understood from the standpoint of regenerative practice, is centrally built on the regeneration of relationships with the embodied self, with other humans, and with more-than-human nature. By becoming aware of our being in the web of life, we make an ontological shift that is the foundation for any meaningful eco-social transformation. Regenerative practice, when understood as part of such a larger political project of liberation and decolonization in the societies of the global North, is then neither merely remedial or reactive, but proactive and deeply political.

5. References

5.1. Citation Diversity Statement

As author of this short article, I see diversity of voices and epistemologies in research in the as an important means for the development of research and eco-social transformation. In preparing this text, I have sought diversity and reviewed which publications by minoritized scholars and non-scholars have addressed the issues which are discussed here.

I chose the diversity indicators of non-dominant ethnic background, gender, and non-scholar, and evaluated the fairness of my citations by counting the number of first and co-authors and inferring ethnic minoritization and gender based on name ("read as"), and non-scholar status based on institutional affiliation and kinds of publication. I acknowledge the difficulties and limitations of attributing any affiliations based on name. However, I also understand that hegemonic processes of knowledge production are based on exactly these processes of marking, and therefore make an effort to make these processes visible, and thus – hopefully – turn them around. Of the works cited here, 43% of the first authors were read as female, and 34% as ethnically minoritized. Among the co-authors, 50% were read as female and 62% as ethnically minoritized. 21% were read by me as non-academics. Based on the analysis of my citations, I believe my citation practices are fair, but room exists to expand them further. I am committing myself to improving equitable practices in science.

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About the Author

Yari Or (she/her), researcher, educator, activist, writer. Grew up as 2nd generation immigrant & Holocaust survivor in Germany. Yari was trained as an anthropologist (at the Freie Universität Berlin, the University of Chicago, and at UCLA) and as a learning scientist (at Northwestern University, Ph.D. 2007), thus connecting socio-cultural, developmental, and educational perspectives in the study of youth development. Her interests lie in the development of new methods for transformative practice in Social Work, Positive Youth Development, eco-social transformation, and nature-based social work.

Interconnected Futures: Material practices and knowledge-based systems in the academy

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More than ever, the role of textile design in environmental, economic, and social crises globally is being revealed. This presents a challenge to activate textile design towards positive change through centring practices that are relational, place-based, and deeply attuned to justice and the wellbeing of our planet: Areas of concern that have been embedded in indigenous ways of Te Moana-nui-a-kiwa for over a millennium. However, as wāhine who whakapapa Te Moana-nui-a-kiwa and Pākehā, we are experiencing tensions when we facilitate authentic knowledge-based systems and material practices that were once naturally entangled to nature, people, and the wellbeing of society.

Within this contribution, we will consider the shifting, re-wiring, and co-creation of our ways of practicing and teaching textile design towards interconnected futures. To do this, we will reflect from the position of our interconnected identities and their entanglement with our scholarly and teaching practices within the academy. And how we might embody the necessary attitudes required to practice, co-create, and maintain the resilience of our ways towards a more 'just' future for Aotearoa and its place among Te Moana-nui-a-kiwa. We will be mindful, throughout, in perceiving our ways and tools as 'alternative', for these have a distinct genealogy but have not traditionally been validated within academic institutions.

Interconnected futures, Knowledge-based systems, Textiles and Materials Design, Te Moana-nui-a-kiwa

1. Introduction

There is some hesitation to frame this discussion as a tool for an alternative future. The traps of modernity and its internalized residue within our colonial frameworks of thinking, even as people who whakapapa Te Moana-nui-a-kiwa and Pākehā, are constantly challenged when we give way to authentic knowledge-based systems and material practices that were once naturally entangled to nature, people, and the wellbeing of society. Throughout this discussion, we should be mindful to consider our ways as ‘alternative’, for these ways still exist but within a space that challenges and at times denies its validity. Instead, this discussion will focus on the shifting, re-wiring, and co-creation of our ways as wāhine who whakapapa Pākehā, Māori and Moana tāngata, teaching within an ‘academy’ through the field of textile and materials design.

More than ever, Textile and materials design and its interdisciplinary expanse has revealed its role in environmental, economic, and social crises globally (Drazin, 2015). This presents a challenge to activate textiles and materials towards positive change (Karana et al., 2018) and highlights the need to centre design practices that are relational, place-based, and deeply attuned to justice and the wellbeing of our planet (Escobar, 2017): areas of concern that have been embedded in indigenous ways of Te Moana-nui-a-kiwa for over a millennium.

To illustrate this, we will reflect upon our interconnected identities and their entanglement with our scholarly and teaching practices within the academy, drawing out how they might embody the necessary attitudes required to practice, co-create, and maintain the resilience of our ways towards a more ‘just’ future for Aotearoa and its place among Te Moana-nui-a-kiwa. Our discussion aims to productively focus on ways in which indigenous understandings of the world can transfer knowledge to future generations through teaching and learning at a tertiary level. We will look to draw out how indigenous customs and techniques, specific to Mātauranga Māori, Tikanga Māori and Fa’a Sāmoa are embedded in our research-led teaching within the confines of a western design style framework to contribute to positive change. Notably through partnership, community building, the valuing and respect of ancestral knowledge, forming non-hierarchical research teams and the importance of tempering positionality whilst reminding ourselves – ‘who’ is of benefit among our creative practices?

We will reflect on our initiatives: the development and delivery of workshops that scrutinize materials through the lens of Māori concepts such as whakapapa and mauri (Yates, 2017). The participatory workshops are further rationalized through western concepts of the circular economy and draw on ideas from McHattie and Ballie’s case studies exploring the principles of design needed to instigate change within textile and material design research (McHattie and Baille, 2018). And in addition, the development of design briefs and assessments to bring about change, that recognize injustice, unpack complex topics over a longer timeframe, giving our students the opportunity to reflect on topics such as decolonization, the complexities of their positionality and their relational awareness to those around them (Noel, n.d.) (Kiddle et al., 2020, 83-106). In contrast to this, we will also highlight some of our struggles and the traps we have fallen through despite ‘good’ intentions when striving to practice and argue our ways as fundamental to the outlook of our futures against a dominant western design framework.

As noted earlier, to revisit our hesitation around ‘tools’ and ‘alternative’ futures. We respect and understand the complexities each area of the globe may offer towards some of the pressing issues highlighted in response to textile and materials and continue our discourse through the different elements of our planet as interconnected living systems, considering for example, the Māori concept of Whakapapa (Roberts, 2013) and the concept of, ‘our sea of islands’ as manifested by the late Tongan/Fijian scholar Epeli Hau’ofa (Hau’ofa, 1993, 126-139). How might we value other forms of interconnected knowledge systems outside of academia to recognize and imagine more transnational

and interdisciplinary ways? Particularly in a canon of modernity that now requires us to reconnect with our impacted pasts to retain the wellbeing of our futures.

We begin with a transcription of a conversation between ourselves – three textile and material design researchers and teachers working within the Ngā Pae Māhutonga, Toi Rauwhāangi, Te Kūnenga Ki Pūrehuroa in Aotearoa. The conversation was recorded for the Pivot 2021 online conference convened by the Design Research Society's Pluiversal Design Special Interest Group and Ocad University, Canada. We later reflected further on our conversation to extend the discussion.

2. The Conversation

Angela

Let me introduce myself. My name is Angela Kilford.

I am of Māori and Pākehā descent, from Aotearoa New Zealand.

Much of the Māori knowledge that is embedded in me has been handed down from my aunties and uncles through dedicated ancestry sessions at family meetings or through the written genealogies and histories that my family meticulously keep.

I've not been lucky enough to grow up living on our ancestral home and have had sort of restricted access to our ancestral houses which tell stories through the Māori carving, painting and weaving that adorn our ancestor.

My father was born into a house speaking only the Māori language, but slowly lost his language through assimilation and schools and in society. I have very little Māori language and so I draw on the Māori scholars and academics with vast knowledge of ancient teachings and language. Scholars such as a Rangimarie Turuki Pere, Mason Durie, Graham Smith, each of whom have produced frameworks for education and health based on Māori concepts and knowledge.

Sonya

Tālofa lava everyone.

My name is Sonya and very similar to Angela, I have mixed heritage, so my father was born in New Zealand and has European settler heritage. But my mother was born in a village in Sama'i, Falelatai which is located in the Sāmoan islands which is part of the Pacific or otherwise known indigenously as Te Moana-Nui-A-Kiwa. Positioning myself more and more, I probably refer to myself as an Aotearoa born Sāmoan. Some other terms might have been used within our diasporic community here in Aotearoa, but it is the one I probably stand to most. At one point of my younger years, I used to be able to fluently converse in Samoan, but over the years and living in a country that is predominantly English speaking, it becomes more hard to maintain language, which I think really is something that is deeply connected with how we position ourselves here.

But why is that important to me? It's important to me because as a creative, I'm always thinking about, you know, what does it look like to materialize my mixed heritage, such as a whole and the image that I've used here to introduce myself is one example of how I've attempted to do that.

Faith

Hi, I'm Faith Kane. I'm from the UK, specifically from the Midlands and I've been living in Aotearoa for the last five years and I'm now a resident here.

My research at the moment and for the last few years has focused on place-based fibre-led, textiles and materials design working towards sustainable and regenerative futures.

And so, the picture here is of European flax which is cultivated in Leicestershire which is the region of England that I'm from and where my children were born who are now becoming very much rooted here in our Aotearoa. And so, I'm really grateful today to be part of this discussion with my colleagues and friends, Angela and Sonya to really look at and explore how our identities and practices interconnect through the textile design space.

Sonya

So, as Faith was saying textile design is the space in which we all connect together here.

But we do deliver in different areas here. So, for my colleague Angela, she delivers a lot of teaching around materials with our students. For Faith, she delivers a lot of teaching around, weaving and soft structures. And myself, I teach the print and repeat pattern courses here.

Angela

So even though we all have our different specialisms and we have found space to collaborate through our interest in knowledge systems. This has been evident in our collaborative projects which makes topics such as fibre research and Mātauranga Māori, Māori knowledge systems or in place-based dye research.

One of the key concepts that has informed my art and design practice, my teaching and also my materials research is the Māori concept of whakapapa. Within Māori cosmogony there is only one set of primal parents Ranginui and Papatūānuku, from whom all things ultimately descend. Māori stories of creation can be found in recited forms of whakapapa and further explain the relationships between ourselves, our ancestors and all the forms of nature that surround us.

In this illustration, on the slide here, we see that harakeke, New Zealand Native flax, a plant is aligned with people and descends from a common ancestor. And this type of illustration has served as a proposition for projects and has led to materials workshop where students examine different types of materials through the lens of whakapapa.

In the workshops, the students are asked to think about what lies beside and behind, in front of, in, and around the material to discover the cultural and technical intersections of their materials. Of course, each student's personal background and heritage will shape their experience of a material and the way in which they choose to explore it. But by introducing, them to a cultural context first, there is an invitation to step away from a personal worldview and consider materials research from a different perspective.

Here we have in this photograph Material Lab students visiting Te Papa Tongarewa, New Zealand's National Museum, to spend time with the back of house Pacific collection.

Pictured here is my colleague Sonya with students talking about the differences between each of the artifacts with the students and discussing the different perspectives on those artifacts.

Sonya

So as Angela was saying perspective is really important in these spaces, and especially as people who have interconnecting identities but also differences as well. A tool that I tend to use in teaching in these spaces is that of Talanoa. So, Talanoa can be quite formal, but it can be also informal as well, and it's something I've grown up with as a Pacific person in Aotearoa. We know when using Talanoa in these spaces, like teaching for example is successful, is that it offers individuals who engage in Talanoa a sense of agency and autonomy through conversational movement. For students, it's successful because it can also help expand their critical thinking beyond the course requirements. So, in my 300-level paper on print, you know we always ask the question, how can print be transformational and communicational?

And that's when we have to really dig deep into ourselves. I'm going to present an extract from one of my students who designed this work here. She's also a student that identifies as a Pākehā student in Aotearoa and in her workbook, she wrote these discussion points out, and she said, "I don't think my final piece can be the main focus of this research project. I can't just insert myself into a conversation or discourse that does not need me as a spokesperson. Rather, my research should stand on its own".

And she was talking about that in response to the theme we were talking about: decolonization. She also said, "I used to follow a stupid meme account on Instagram, set up by someone in America who graduated art school around the same time as me, following the Black Lives Matter protests. In May this year, she handed over her account to African American women. This immediately gave them a huge following reach. And instead of being able to ignore or not engage with these posts, previous followers were not now seeing these posts every hour or so".

In this, part she is talking about the way in which people outside of a minority worldview, once they begin to realize these other identities or these positions with levels of nuances existed or finding ways to move the space or look at the space, hold themselves accountable with a sense of responsibility to look outside of themselves: who's around them.

The student then goes on to say, "I think we do not need to recognize that as Pākehā, students researching within a 12-week paper, we will not have a clear stance on where we will end up. The value and importance of this paper has more to teach us about listening to voices outside of our immediate classroom. We will not fix these injustices. This is just our start in a struggle that Pākehā have refused to acknowledge for decades". Now, I think that end contribution by her is really important to consider here. You know, I think in terms of design, we're constantly thinking what are solutions that we can get out of this? And another thing with Talanoa is, solutions don't come from the one person, but the engagement collectively as a class encourages individuals within that class to think outside of themselves - but to also think how do we work together on this?

Faith

So, in terms of ways of being and knowing in connection to design, I'm coming from a Northern European framework, but through textiles as my ways are very much rooted in hands on engagement with materials and making processes and also drawing intuitively and through collaboration from science and engineering.

Very much drawing on understandings and theories around craft practice and so for me designing and making textiles and materials is very much about an interlacing of different types of knowledge and different ways of doing. But what's become more important for me, and it has come into increasing focus for me being here in Aotearoa is the need for me to really clarify my position and my attitude and my approach and contribution in those moments where different knowledge systems, different ways of doing interlace together.

Particularly as before coming here, I hadn't been hugely pressed to do this, working within the dominant European worldview. Yeah, so this is very much a journey that I'm on within my own research and practice and then consequently within my teaching of constructed textiles and materials design. So, something that I found really useful is Leslie Ann Noel's discussion around positionality and the importance of evolving a positional statement as a designer as visualized by the diagram that you can see on the slide shown here.

So, at the moment I'm exploring and testing how I might use this as a tool within my teaching of woven textiles and how I can encourage students to kind of create a positional statement as part of their design process and practice. Particularly, in a way that is specific to their concerns of textile material design, so thinking about raw materials, colouration, making processes, pattern, and touch. And thinking about that in terms of their own response to these elements within the design and making process, but also thinking about how those elements are then going to be received by others within the kind of many application areas for textiles and in particular thinking about those textiles within interior design context specifically.

ALL

Sonya

As much as we can practice these tools in our academic spaces, we do come across tensions in trying to be these people that we are in these spaces. So, I thought we'd just talk a little bit about some of the traps that do get set. I know for myself when I'm using "tools" like Talanoa in an academic space. Uhm, I say that because I know there are... it puts it at risk of operating outside of an indigenous space, and I'm only saying that because an academic space was never designed to include indigenous ways of doing things. The other risk that comes with practicing something like Talanoa in this space, is it, um, puts it at a level that could potentially make it out of reach for people within our own Pacific communities who might use it every single day as part of their daily lives. And that goes back to what I was saying earlier about it being used at a high or low level. UM, we do, even within our own Pacific academic circles, we have seen people publishing on the concept of Talanoa. We have seen arguments around whether it's a tool or a methodology, but we've also seen people jump in and say, how can you use Talanoa if you don't speak the language? Because we also know that language can teach us a lot as well in terms of the gafa of Talanoa, or the spiritual, mental and social constructs that are attached to Talanoa when you engage in those spaces. And Talanoa is also being argued as something that challenges Western constructs of time which I think is really interesting, when that students work that I shared, she talks about 12 weeks. It's not enough to kind of make some great leaps around decolonisation when we're using things like Talanoa in that space. Yeah.

Angela

But can add to the traps I guess, and I want to talk a little bit about finding a time and place for sharing indigenous knowledge. And when I was reading on Rangimarie Turuki Pere's indigenous framework for health, she talked about how she used the Māori lunar calendar to choose her time to share knowledge with people. So, there was a particular moon phase that only comes up and stars aligning and everything and it was coming up in about, I think the 1980s. She says that she missed the timing by a couple of years even, but she was trying to use her own indigenous frameworks to work out when would be a good time to share this knowledge. And you know, by the time she had written her research and shared it with people, she wrote a book to make it more accessible, a sort of picture book as well. And I think in the end she still wasn't really sure if it was the right time to share the knowledge. It seemed as though the rest of Aotearoa society was ready for it, but once it is out you can't take it back again. She was looking for a safe space and safe time to share this knowledge when it wouldn't be taken out of context. So, it's really difficult because we put things out there and then they're out of your hands, yeah.

Just the other thing I want to talk about, especially in this sort of conference format, is because of the Esoteric nature of the knowledge, the terms and concepts need to constantly be explained in-depth. You know, for other conference participants to sort of understand the intentions of our tools, the interventions and class activities that we designed to challenge existing Western methods of teaching, it takes time to develop that knowledge and any kind of depth that might be meaningful for the participants, so yeah, the actual conference setting makes it difficult too, yeah.

Faith

Yeah, so just in response to thinking about safety and time. Uhm? Safety and time and picking the right time to explore and introduce these tools. I think it's a huge challenge for us collectively within the academic institution, as colleagues working together to actually create the time to build the relationships needed to do a lot of this work. And so, yeah, I think that's for me, one of the biggest challenges in this space, but also one of the hugely, hugely big benefits from working together and having been able to have those moments of relational connection to explore and discuss all this stuff.

3. Reflections**3.1 Angela**

I think it is important to present our conversation in its unedited state to illustrate the complexities and difficulties of working across different knowledge systems. What we have shared is a dialogue between three researchers, each with their own worldview, but with a common language of textile making. We set out to explore the different traps that we fall into when practicing embedded knowledge with people outside of our own culture.

Personally, this has led me to further reflection and instead of moving forward with confidence, I have returned to Māori writings of the 1990s for insight on how to integrate my indigenous thinking into Western styled classroom teaching. An article that I particularly relate to and is explicitly structured to protect and respect Mātauranga Māori, is *Kaitiakitanga: Māori perspectives on conservation* (Roberts et.al, 1995). The article begins with a set of cautions, leading to a brief explanation of Māori cosmology (worldview). The authors then discuss Māori and the valuing of land, before finally entering a discourse on kaitiakitanga. The framework used in the article to prevent damage to indigenous knowledge, can

only protect it to a certain extent. The writers caution the sharing of knowledge with people uninitiated or unoriented towards a Māori worldview, as words and concepts can become disconnected from their original context, compromising indigenous values and understandings. Unfortunately, there will be people who ignore the cautions and even with knowledge of indigenous value systems, will proceed to appropriate Māori knowledge, customs, motifs, and artefacts without remorse. In the classroom, I have a responsibility to provide a safe environment for students to learn in and need to ensure my own cultural safety when engaging students in Te Ao Māori. My fear is that if I have not prepared students sufficiently to receive Māori knowledge, they will be at risk of disrespecting my culture and potentially taking their misunderstandings outside of the learning environment, compromising themselves and others.

One way of minimising the misappropriation of culture, is to work together with colleagues to scaffold learning laterally so that the students intersect with different worldviews throughout their education. From my collaborative encounters with my colleagues Sonya and Faith, I have identified the markers of those initiated in a worldview beyond their own as having an empathetic understanding of the ongoing impacts of colonisation and a belief that we are all casualties of the brutalities of Imperialist nation building. Finding commonality in our different perspectives, I hope that we will continue to practice and teach in a way that feels natural to each one of us, and in turn decolonise our learning spaces.

3.2 Sonya

It is so funny, how living through academia is a constant negotiation of time: meetings, classes, student office hours, teaching preparations, deadlines... oh and COVID-19. In the lead up to the Pivot conference and post pivot conference, the struggle has been real in trying to initiate and engage in *kanohi ki te kanohi* between ourselves - a concept my close Māori acquaintances have taught me: face to face, a concept that also intersects with authentic practices of Talanoa.

Reading Angela's reflection reminded me about the importance and reciprocity of dialogue. What does it mean to "make sense of time?" (Tuinamuana & Yoo, 2021, 53). The administrative operation of academia tends to take centre over the potential for serendipitous moments of Talanoa. The example of my student's response to the constraint of a 12-week paper demonstrates how the academic system can obstruct the potential to deeply engage in Talanoa, particularly around the principles of decolonization. It is pertinent to understand, that Talanoa can enable the engagement of decolonization: we can begin by positioning ourselves, weaving through relational differences, academic time has no place in Talanoa when you are "drawn to 'difference'" (Tuinamuana & Yoo, 2021, 59) because these intangible forms of vulnerable engagement become more than completing a 12-week paper.

When I think of prominent Pacific scholars who have grappled with this concrete space before me, I am reminded of how their sense of time disrupted the conformity of academia. The late Epeli Hau'ofa (1939-2009) and the late Dr. Teresia Teaiwa (1968-2017) were well known for investing a stillness of time with their students, including us Pacific students who were not even enrolled in their papers. Despite not being in the living present with us today, Hau'ofa's writing on, *"The ocean in us"* (Hau'ofa, 1998) and Teaiwa's epigraph she offered, *"We sweat and cry salt water, so we know that the ocean is really in our blood"* continues to underpin their hopes for us to disrupt *"externally generated definitions of our past, present, and future."* (Hau'ofa, 1998, 392). We must first acknowledge their pluriversal oceanic identities: Hau'ofa was born to Tongan parents, in Papua New Guinea, and was based at the

University of the South Pacific in Fiji. Teaiwa was born to African American and Kiribati parents, born in Hawai'i, raised in Fiji, yet settled in Aotearoa, a leader in Pacific studies at the University of Victoria. Imagine living and breathing your right to pluriversal oceanic lineages, in a euro-centric-systemic space that has historically benefited from the extraction of our environmental resources, objectified our bodies, produced ethnographic studies of our cultures, territorialized our moana and continued to enforce a playing field that results in the low retention rates of Pacific student achievement. I can only imagine what it must have been like to work and live between contrasting worlds of thought and power dynamics, whilst being at the intersect of time: teaching our oceanic truths to us Pacific students who were also voyaging into our futures. Hau'ofa and Teaiwa's hopes to continue to pierce through the constraints of academia, beyond their living presence.

I teach classes that are made up of Pākehā students and a small minority of students who gafa to Te Moana-nui-a-kiwa and beyond. When we consider Te Moana-nui-a-kiwa, it needs to be pointed out that Aotearoa is part of the vast moana that connects us to the shores of Sāmoa, Tonga, Tokelau, Niue, Fiji, Rarotonga, Kiribati and every other motu seated within Te Moana-nui-a-kiwa. But most days I must pinch myself to remember this or remind others of this underrepresented lineage of relationality. But the pitching of terms like 'Pacific' homogenizes our plethora of motu across the moana and continues to be used in a way to separate ourselves from the New Zealand narrative. When we engage in Talanoa in the class and start to unpack our 'differences', we can begin to better understand each other and disrupt our own ideas of ourselves. During this process, we can agree that identity is fluid. For example, a lot of our Pākehā students might be born here in Aotearoa but can trace their gafa back to areas of Europe. We have also seen this with our Asian Aotearoa students (Asia is another term that is homogenizing) and so on. Talanoa allows unpacking and to expose the underrepresented areas of ourselves to our parents, or even our ancestors. In the 12-week paper where we go into the depths of decolonization, for some students, it's finally a space they can reconnect with these lineages – for example we still have students excluding their Māori and/or Pacific contexts when they enrol at university. But without focusing too much on ethnic lineages, it's the commonality of how much we have yet to engage in knowing ourselves and each other and how euro-centric-systems such as academia lack the support for this. I grew up with the concept of Talanoa: I'd Talanoa to myself, listen at the knee to Talanoa, engage in Talanoa with my uso (sister-like cousins, friends) well before studying at university made me conscious of it as a 'concept'. At university I began to read about Talanoa (Vaiotele, 2006), I observed critical debates theorizing Talanoa, expanding its space as plural and universal or as Tongan curator and writer Kolokesa Uafā Māhina-Tuai describes as, "*critically, yet harmoniously*" (Lagi-Maama Academy & Consultancy, 2020, 2) in Talanoa. So, it is only natural for me to fall into Talanoa in the teaching space. Especially in a place like Aotearoa. But there are times where I must catch myself out: A Pacific academic, practicing a common Pacific framework of communication in a space where Pākehā are the dominant majority? Is the agency still with me as a Pacific Academic, or have I unconsciously participated in contributing to the agency of the majority? Especially when there is still a lack of equity for our future Pacific students in the academic system which continues to create an uneven playing field for their successes? I would like to think that these questions are no longer relevant if Talanoa is enabling us to disrupt, "externally generated definitions of our past, present, and future" (Hau'ofa, 1998, 392) for all students unravelling the depths of their contexts.

3.3 Faith

In re-reading our conversation for the Pivot 2021 online conference and what Angela and Sonya have written, three things remain on the surface for me for further reflection. The first is a recognition of the need to more fully understand who I am, where I am from and how that shapes my approach to research and teaching within textile and materials design. And, from there continuing a journey to understand how I position myself in relationship to the work of decolonisation within this space. The second is a growing realisation that I am drawn to look for familiar systems, replicable models and usable 'tools' that I can master and become comfortable with in order to partner in this work. The third is the overwhelming sense of privilege and gratitude that I feel to be teaching with Angela and Sonya and to be involved in collaborative research that is rooted in Mātauranga Māori.

As I noted in the conversation transcribed above, I am from the UK and have lived in Aotearoa now for five years. Within this context I am tauīwi but share much in common culturally with Pākehā and am drawn to the values embodied in the identity of Tāngata Tiriti. Amanda Thomas, in her contribution to 'Imagining Decolonisation' (Thomas, 2020, 107-132) writes that to do the work of decolonisation Pākehā need to better understand who we are. We need to know ourselves more fully within all spheres of our lives, including within our design practice. But, as Yoko Akama, Penny Hagen & Desna Whaanga-Schollum surface in 'Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People' (Akama et al., 2019, 59-84), as designers rooted in western thinking, we rarely give deeper descriptions of our backgrounds, sociocultural context, philosophy, or values. They refer to anthropologist Lucy Suchman (2002) in noting that this cyclically fortifies a 'design culture of nowhere and nobody' (Akama et al., 2019, 62).

Understanding and articulating who we are can at once be enlightening and confronting ((Thomas, 2020, 107-132). I fully relate to the discomfort bound up with shame, guilt, and tension that Thomas articulates, and I accept the need that she identifies to stay with those feelings and consider what they can teach me about myself and my behaviours. Leading my students in such a journey is equally enlightening and confronting. Whilst I have found the work of Lesley-Ann Noel (no date) on positionality amazingly helpful in beginning to facilitate students to unpack and articulate who they are within their design practice – to position themselves – I find this hugely challenging. The discomfort rightly and needlingly persists. How can we collectively create learning environments that are inclusive and safe for all students to explore and articulate who they are confidently and without fear to let their creative voices be heard and impact the world for good? How do we do this within an academy that leaves little time to invest in the personal and relational work that is required and provides little sense of safety and security?

I recognise that I am drawn to look for easy answers where there are none. I look for familiar systems, replicable models and usable 'tools' that I can master and become comfortable with in order to partner in this work and 'get it right'. I am beginning to understand that this is ingrained in my western mindset and is embodied in dominant models of design such as the Double-Diamond (Design Council UK) that, as Arturo Escobar writes highlighted by Akama, Hagan and Whaanga-Schollum (Akama et al., 2019, 60) have been "exported to many world regions over the past few hundred years through colonialism, development and globalization." How do we resist the inclination to rely on such ways? Akama, Hagan and Whaanga-Schollum (Akama et al., 2019, 62 & 64) provide some helpful critique and explore 'respecting design in the periphery' and 'accounting ourselves and our stories' as important behaviours. Over the last five years, within my own design research and teaching practice, I have slowly begun to

learn to step back, listen, learn from others, and wait. To be ok with mistakes and to stay with the tension and trouble. To let a way through emerge step by step rather than reverting to the well-worn and comfortable dominant path. This has only been possible through the relationships I have been lucky enough to build and the opportunities I have had to work collaboratively.

I am hugely grateful to teach with Angela and Sonya and to be involved in research to revitalise the Harakeke fibre industry in Aotearoa. The Harakeke plant is native to Aotearoa and is a taonga species. In working with this plant and its fibre, which is called muka, I have the immense privilege to learn about Tikanga, Kaupapa Māori and Mātauranga Māori and have had the opportunity to work in partnership with leaders in this space including Rangi Te Kanawa. Through a shared love and understanding for textile making, to which we bring different perspectives and knowledge, this work has, as Angela noted in her reflections, enabled me to engage in a worldview beyond my own. I have experienced that it is in nature that we find the time and space for the connection with self and others that we need. Without these opportunities, experiences and most importantly relationships, I would not have come anywhere near as far on my journey towards being a partner in decolonisation.

As I was reminded on a visit to Te Papa Tongarewa (the National Museum of Aotearoa) with my eight-year-old son and his friend this morning, “We’re all connected, with our own stories to tell. Listen.” (In Te Taiao). As someone from the dominant story I must stop and listen. But I must also dig deep to acknowledge, face, and find meaning in my own story to bring something to share rather than take.

Glossary

• Aotearoa	New Zealand
• Fa’a Sāmoa	Ways of Sāmoa, Sāmoan way
• Gafa	Sāmoan for ‘genealogy’ or history
• Harakeke	New Zealand flax plant
• Kanohi ki te kanohi	Face to face
• Kaupapa Māori	Māori principles and approaches
• Mātauranga Māori	Knowledge/wisdom of Te Ao Māori (Māori worldview)
• Mauri	Life force
• Moana	Ocean
• Moana diaspora	Pacific Peoples located in Aotearoa
• Moana tāngata	Pacific Peoples
• Motu	to mean ‘Island’ in both Māori and Sāmoan
• Muka	Prepared flax fibre
• Ngā Pae Māhutonga	The School of Design, within Massey University’s College Creative Arts
• Pākehā	New Zealander of European Descent
• Tāngata Tiriti	People of Te Tiriti O Waitangi
• Taonga	Treasure
• Tauīwi	Foreigner
• Te Kunenga Pūrehuroa	Māori name for Massey University
• Te Moana-nui-a-kiwa	Pacific Ocean

- Te Taiao The natural world
- Te Tiriti O Waitangi The Treaty of Waitangi
- Tikanga Māori customary values, procedures and practices
- Toi Rauwhāangi Massey University's College of Creative Arts
- Uso Sāmoan for sister or brother but can only be used between sister to sister or brother to brother.

- Wāhine Women
- Whakapapa Genealogy

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Faith Kane a design researcher and educator working in the area of textiles and materials. Her interests include place-based design towards sustainability and regeneration, collaborative working in the design/science space, transdisciplinary research practices and the role and value of craft knowledge within these contexts. She is an Associate Professor for Textiles at the School of Design, College of Creative Arts at Massey University in Wellington New Zealand. and an editor of the Journal of Textile Design Research and Practice.

Sonya Withers is a New Zealand born Pacific creative, with lineages to Scotland and Sama'i, Falelatai, Sāmoa. Sonya has featured work under Miromoda (Indigenous Māori Fashion Apparel Board) through New Zealand Fashion Week, is a Creative New Zealand Tautai internship recipient and worked on Pacific community centred projects with Te Papa Tongarewa abroad (Hawai'i) and locally with Auckland War Memorial Museum (Pacific Community Access Project). Sonya is motivated by the support of her community and is committed to surfacing how design and creativity can serve the past and present of Te Moana-nui-a-kiwa. Sonya is a lecturer at the College of Creative Arts, Wellington School of Design and teaches between Textile Studio and Critical and Contextual Studies.

Calendar Collective

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Calendars increasingly play a fundamental role in establishing our everyday rhythms, shaping our consciousness of temporality. But these tools are not neutral. They codify values and behaviour while obscuring the politics of time embedded in their representation. After all, how we represent time affects how we conceptualize time. Calendar Collective is a design-led research investigation that challenges the normative understanding of time as linear, objective and neutral. In this investigation, I use calendar as a subversive tool to dismantle current hegemonic time structures and rebuild plural structures. As a designer from a previously colonized country, I employ calendar as a decolonization tool to render time - one of the most invisible epistemologies in futures work - visible. Using a combination of participatory design workshops, counterfactual history techniques, and personal cultural experiences, I unfold a fictitious archive of alternate calendars (real and imagined) traced through voicemails. The voicemails are a reminder that complex socio-cultural systems based on alternate temporal thought have always existed and still do.

speculative design; futures; calendars; time

1. Introduction

1.1 Concept Statement

As a designer, I use ordinary objects to unfold alternate histories and marginalized futures that otherwise remain in the unexplored nooks of our everyday world. Ordinary objects can be 'read' and 'written' in a specific way. By employing 'aesthetics as a technology', I transform calendars into portals to alternate worlds. Calendar Collective focuses on the 'aesthetics of unreal time' by mutating the visual design of the calendars, distorting expectations and creating calendars that live between possible and impossible.

1.2 Impetus

1.2.1 Have you seen the moon?

I begin with a story about time and the moon. Kojagiri Purnima is a harvest festival celebrated on the full moon day in the month of Ashvin (roughly September to October), marking the end of the monsoon season in Maharashtra, India. A modern urban celebration of this day involves singing together while drinking warm nutty milk under the full moon sky. One day, a conversation with my mother about the Purnima made me realize that I had not noticed the moon in the past seventeen months. As I looked at my Apple calendar - I had no way of knowing the shape of the moon. There was no need for me to know so. Unlike in India, the moon remained absent in my everyday conversations. The seeming uniformity of the Apple calendar hides the diversity of natural cycles. By hiding these cycles, the calendar also thwarts the realization of how these cycles intersect and affect human life. These points of intersection are potent with social and cultural significance. Yet our calendars obfuscate more than they reveal. In the process they abstract time from environmental (and other) cycles and emphasize uniform duration as the correct method of reckoning time. The Hindu culture I grew up in considers astronomical alignment and specialized knowledge to establish 'good' & 'bad' timing. Full moon is thus an auspicious day. This unequal concept is distinct from the concept of time as continuous, uniform and homogenous. The anecdote serves as a reminder that complex socio-cultural systems based on alternate temporal thought such as the moon have existed and still do.

1.2.2 What if you are in two places at the same time?

As an immigrant from India currently residing in the United States, the story above indicates how I have often been divorced from the social rhythms of festivities, holidays happening across continents. The project inquiry started with this discomfort of feeling temporarily disoriented with loved ones back home. Though technology increasingly mediates communication between people, particularly when they live at a distance, it only facilitates the exchange of information. The temporal experience of this exchange continues to be tethered to the 'Standard Time' often forcing one to inhabit multiple temporalities. The temporal infrastructure offers only one rhythm. This feeling of being 'out of sync' meant I would constantly have to 'recalibrate' myself to a certain time zone.

1.3 Significance

"Every clock tells a story. Every clock takes a position in a debate about time. Every clock is an attempt to shape how people think about time" (Kevin Birth: "Clocks, Politics, and Changing Times" | The Frick Collection, n.d.). Today our clocks and calendars frame time expressions through 'smart' scheduling, organizing, planning, quick syncing, to-do lists and progress tracking. In doing so, they continue promoting dominant temporal narratives of acceleration and time saving while cementing the logic of productivity. These tools are not neutral. They are not mere depictions of time. Instead, they are products of a biased perspective. They pervade our lives, mediating our interactions with one another, technology, and the world. But their very pervasiveness also makes them invisible. And it becomes difficult to disentangle the values knotted in them. In this way they perpetuate and reinforce the same systems that created them.

Modern digital calendars make linear time so incontrovertible, so deeply foundational to our worldview, that it's almost impossible to conceive of time any other way. They treat time as a limited resource. The system makes tangible the notion that time is money – we can invest it, lose it, gain it or worst of all waste it. This system supports values of productivity and efficiency. But what if a system and its resultant tool could foster values of intuition, anticipation, care or waiting?

1.3.1 Representation of Time

How we conceptualize time affects how we represent time and consequently shapes our time experience.

A calendar is a manifestation of a cognitive model of time. Beneath its representation lie complicated mathematical, astronomical and mechanical models of time. Understanding experiences and conceptions of time requires understanding the cognitive models inscribed in calendars. Today these underlying conceptual models are becoming increasingly illegible to human perception. Instead of a calendar representing the rising and setting of the Sun, the phases of the moon, or the changing seasons, our digital calendars represent time in a neat stack of days, week, month and a year. A direct conceptual result of this is, time becoming objective, uniform and inert instead of subjective, irregular and malleable. Because standard time can disengage itself from relational rhythms, it has been allowed to become the universal measure of time that transcends all other measures. A clock of standard time continues to tick irrespective of other forces.

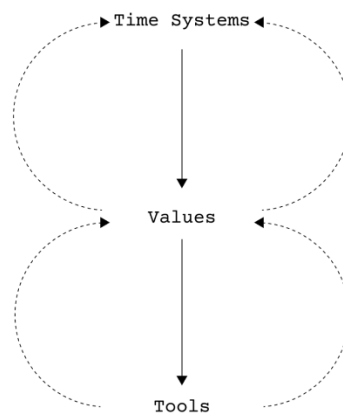


Figure 1:: A system supports values that shape our tools. These tools influence the same values & systems that created them.

1.3.2 The Strange Now

Amidst this project, covid-19 pandemic forced sweeping closures causing the disappearance of any type of collective, real-world activity. As known systems of organizing time broke down, it became evident that these systems were never working in the first place or perhaps were only working for some. The pandemic has been forcing us to live in unreal time in a very real world. Hence our relationship with time is in flux. So how might we tell time amid a pandemic? What Anab Jain calls this phase is the 'Strange Now'. "We thus find ourselves in a situation that is far from the popular notions of normality and have entered the domain of the New Normal" (Design for the New Normal — Superflux, 2017). So how do we interrupt this state hypnosis?

Our over-reliance on clocks and calendars has left us ill-equipped with other senses of time, especially in global crisis moments where synchronized, standardized time management is no longer possible. We need alternate ways of creating, managing, and preserving time. While our current calendar time is a mathematical abstraction, our lived experience of time is divergent, with conflicting rhythms. In this collective imagination, we need a plurality of time models and power to shape them.

2. Context

2.1 Slowness as an alternate temporality

Slow points towards a temporal shift to 'awareness' in production and consumption of products & services - especially as an increasing number of people are becoming prosumers (people who consume

and produce) in the system. Slow movement stemmed from the Slow Food (Slow Food, 2015) - Carlo Petrini's protest against the opening of a McDonald's restaurant in Piazza di Spagna, Rome, in 1986. Today it has manifested in other spaces including Slow Design, Slow Technology, Slow Cities and Slow Art. In order to move away from the agenda of efficiency and productivity, I explored Slow design (Grosse-Hering et al., 2013) and Slow technology (Hallnäs & Redström, 2001) as possible frameworks to create experiences with alternate values.

2.2 Politics of Time

My initial research around slowness nudged me towards a pluralist and politicized perspective on time. I realized that reducing experiences of time to a dichotomy of fast versus slow still falls under the narrative of time as a pace, duration or direction. These are not temporal conceptions outside linear time. In fact, these reinforce time as an objective, neutral and inert background of our social lives. The call to action of 'slowness' wrongly assumes that everybody has equal access to time. For example, who has time, whose time is valuable or worthless, who has to recalibrate their bodies to different temporalities and rhythms (i.e night shift, irregular work hours), who gets to move through time smoothly and who has to wait, and who is "out of time". On critical assessment of various forms of 'slowness' in slow design & slow technology, I realized that my attraction towards slowness was based on problematic equating 'slow' with other values such as small, local and mindful. But these are dubious claims and they fail to answer the questions such as - who affords the luxury of slowing down? What happens when one is forced to slow down? After all, slowness is a privileged temporality. Sarah Sharma's concept of 'power-chronography' (Sharma, 2013) reveals the hidden entangled and uneven politics of temporality. Through ethnographic work focused on taxi drivers, airport workers to businessperson flying across time zones, she successfully highlights how people's relationship to labour configures their experience of time.

2.3 Temporal Design

Pschetz & Bastian (2018) propose Temporal Design as a "shift from pace, direction and subjective experience towards looking at time as emerging out of relations between cultural, social, economic and political forces." (P.169) This approach highlights that there is a multiplicity of temporalities latent in the world. This is a call to action for incorporating pluralistic perspectives on time as a response to the globally synchronized and flattened temporal expressions. The process of temporal design includes

Identifying dominant narratives, including the forces and infrastructures that sustain them or which they support.

Challenging these narratives by revealing more nuanced time expressions of time

Drawing attention to alternative temporalities, their dynamics and significance

*Exposing networks of temporalities, to illustrate multiplicity and variety
(Pschetz & Bastian, 2018, P.174)*

2.4 Value Fiction

Using Respectful Design framework, Dori Tunstall (Lab, 2021) indicates the relationship between the values we put forth in the world, the way they manifest through design and how that shapes our experience of the world. She lays emphasis on 'aesthetics' as our first technology of control. As designers, our expertise lies in this space and hence we have the power to influence how these values are made tangible.



precise	ambiguous
objective	subjective
universal	plural
predictable	relative
external	internal
planning	wandering

Figure 2: A set of alternate values

Hertzian Tales by Anthony Dunne (2005) is a rich source of cultural speculations and conceptual design proposals that use design as a critical medium for reflecting on the cultural, social and ethical impact of technology. It offers a wide range of design approaches for developing the aesthetic potential of products outside a commercial context. I am particularly interested in the conceptual design proposals that critique the present through material embodiment of functions derived from alternate value systems

2.5 Calendars as tools of control

Time management is an important feature of digital calendars. The cult of technology focuses on ‘smart’ scheduling and planning to build efficiency. Synchronized calendars across devices and groups are meant to facilitate coordination as a solution to speed. All of these features imply time as a problem of better management and control. For example, granularity of digital calendars down to minutes is an attempt to monitor every single minute. These schedules create rigid temporal boundaries. In workplaces, employees are expected to provide superior employees access to their calendars. But the reverse is not enforced. This act has power dynamics at play. Public holidays by government institutions are also a form of control at a macro level. Separating ‘celebratory days’ from the environmental cycles that originally produced it is another attempt to command time. These respond to a kind of time that can be harnessed, bound and controlled instead of time that is socially shaped and produced. Here time is understood as a force between individuals and institutions where institutions gain control over one’s time. As Sharma 2017 points out, “What most populations encounter is not the fast pace of life but the structural demand that they must recalibrate in order to fit into the temporal expectations demanded by various institutions, social relationships, and labor arrangements.” (p.133)

The insistence on these values in calendars forecloses their critical and transformative potentials. At a macro level, calendars exercise authority by defining temporal borders. Throughout history, various calendrical systems have been created, modified and adapted to reflect religious and political differences. They create and support collective identity. As a result, calendar changes are often associated with changes in political authority or religious reforms.

2.6 Calendar Reforms

The fundamental issue with a calendar based on astronomical calculations is Earth’s rotation. Our globe takes a little more than 365 days to make a full rotation around the sun. More precisely, it takes 365.24219 days. Constructing a calendar with only 365 days results in the seasons slowly falling out of sync with the months. Calendar makers have employed a range of techniques to account for the same. Throughout history calendrical systems have been created and modified to reflect religious and political differences. These reinforce temporal borders and create identities.

2.6.1 Gregorian Calendar

Gregorian calendar was developed as a correction to the Julian calendar. It is named after Pope Gregory XIII, who introduced it in October 1582. Gregorian reform was adopted initially by the Catholic countries of Europe and their overseas possessions. Over the next three centuries, the Protestant and Eastern Orthodox countries also moved to what they called the Improved calendar. Great Britain and the American colonies didn't switch over until 1752. In Britain, when the reform actually happened, they famously lost 11 days. Today due to globalization, the Gregorian calendar has been adopted by most non-Western countries for civil purposes. But it is important to remember that it has also been a result of colonization. (Richards, 1999)

2.6.2 French Republican Decimal Calendar

The French Republican Revolutionary Calendar established a new time keeping system from 1793 until 1806. It employed 'decimal time' in order to be rational (in contrast to religious "irrationality"), and parallel the metric system. Using metric time was a proclamation that all Frenchmen became equal. A year had 12 months of 30 days each with 5 days at the year end. Hence its power lay in its symbolic value rather than practical purpose. A leap year was to have an extra intercalary day. Months were standardized into three equal decades of 10 days each, each day was divided into 10 hours, hours into 100 minutes, and minutes into 100 seconds. This period also saw watchmakers build decimal clocks and watches. (Richards, 1999)

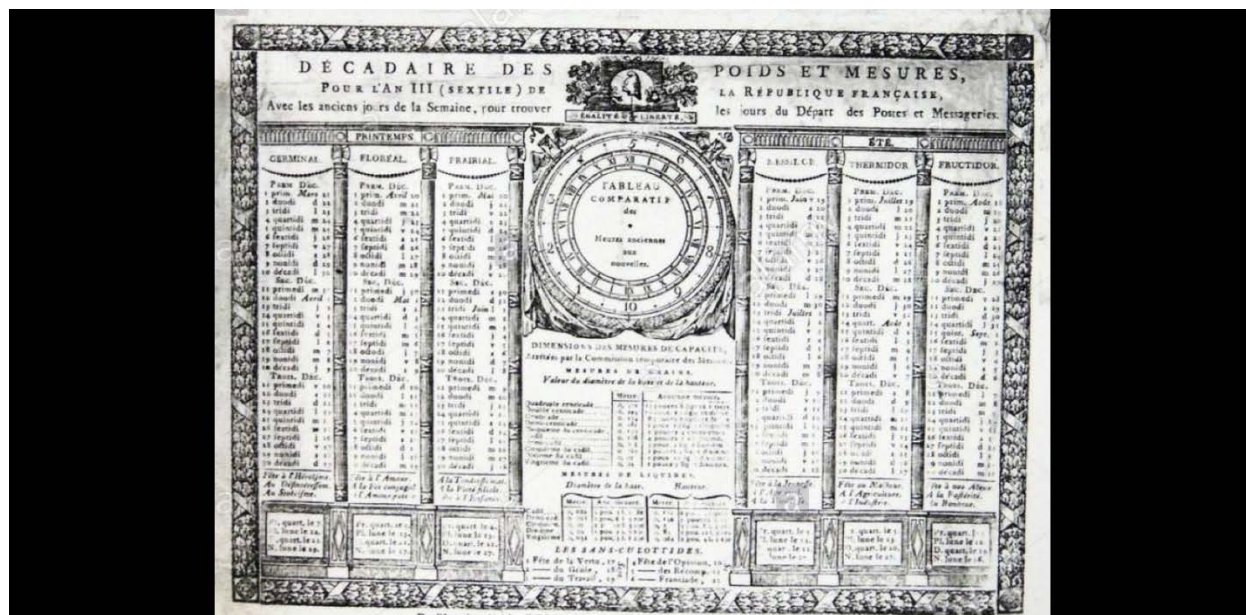


Figure 3: French Republican Decimal Calendar

2.6.3 Soviet Revolutionary Calendar

The Soviet "Revolutionary" calendar was introduced in the Soviet Union between 1929 -1940. It altered a week to five days. Each day on the calendar was represented with either a colour or Roman numeral. Workers, both government and non-government, were issued a number or colour. They were to observe a day off on the day that fell on their number or colour. While it did increase productivity as intended (80 percent of the country was working at any given time), it disrupted the social system by segregating families and friends, workers were demoralized, and machines could not be routinely maintained. (Richards, 1999)



Figure 4: nepreryvka, Soviet Calendar

2.6.4 International Fixed Calendar

International Fixed Calendar was 13-month calendar with 28 days in each month and a leftover day at the end of each year. Impressed by the symmetry of hyper-rational calendar, George Eastman adopted it for use in his Eastman Kodak Company 1928 to 1989 while the rest of the world followed the Gregorian calendar. ("The Death and Life of the 13-Month Calendar," 2014)

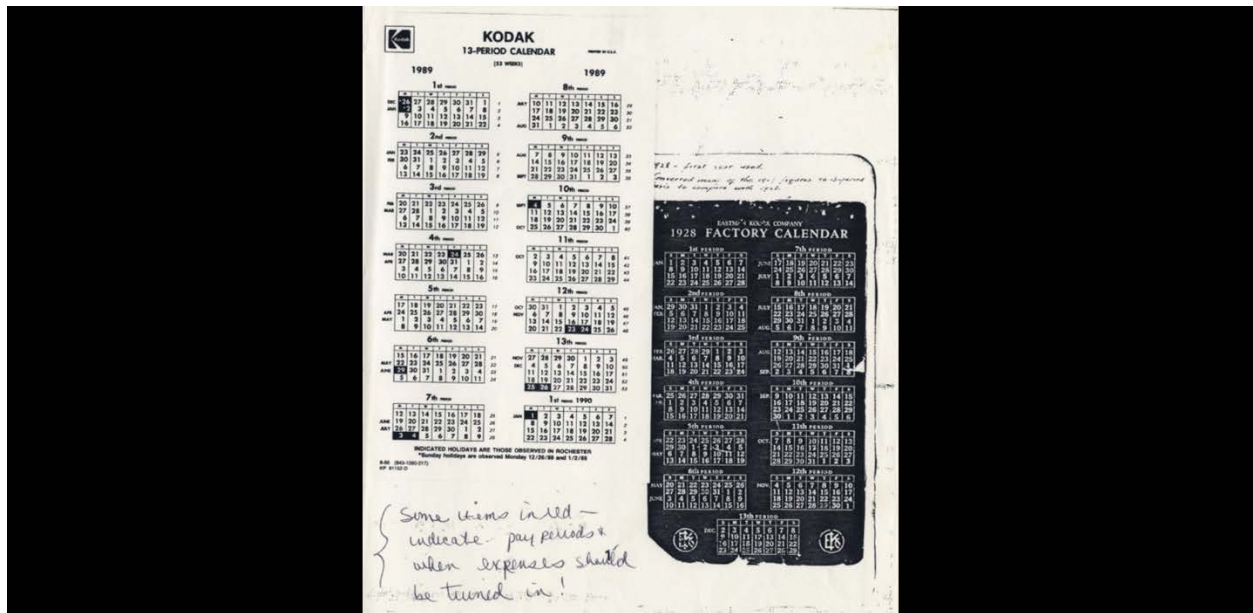


Figure 5: International Fixed Calendar

2.6.5 Indian National Calendar

In 1955, 8 years after Independence, India had almost thirty different calendars prevalent in different parts of India. Indian calendars were intricate, complex and subject to local variations including the methods of time reckoning. Until its independence, the country was rarely united under a common

government. These diverse calendars were a result of past political and cultural history as much as they partly represented past political divisions in the country. Creating one Indian National Calendar was a political act to build uniformity for civic, social and other purposes. The reform was an attempt to create a robust collective identity by drawing temporal borders. A Calendar Reform Committee was formed to undertake a detailed study and integrate all of those calendars into one Indian National Calendar. It is used, alongside the Gregorian calendar, by The Gazette of India, in news broadcasts by All India Radio and in calendars and communications issued by the Government of India. (*Report of the calendar reform committee, 1955*)

2.7 Calendars as designed objects

Clocks and calendars are artifacts that are designed. They can therefore be redesigned. These tools can be remade to respond to temporal challenges in new ways. While people wielding power have used these to exercise their authority, as a designer I employ timekeepers in ways that suggest intriguing possibilities of poetic interventions. Instead of dismissing timekeepers as hopelessly redeemable, I am interested in using them to misappropriate, cheat or even steal time.

3. Methodology

3.1 Problem Finding

As an Industrial designer, I was trained to look for a problem and then solve it. Design served a functional need by identifying a particular issue and consequently proposing solutions for the same. Design was not meant to ask questions but to provide answers. As a critical yet optimistic designer, I am interested in using design to question the socio-cultural, ethical and political impact of technology. Hence my methodology has been primarily problem finding - not solving. I have used design as a tool for linking theory to practice in order to propose open ended questions that confront audiences with the fragility of their own reality. The experiments were directed towards diverging the ways in which we might inhabit time. Therefore, the resultant calendars do not solve any problems in a commercial practice- instead they expose the experience of time with all its complexities.

3.2 Thinking Tools

Thinking tools were created as a set of schematic representations that visualized the structure of time as a system. As visual tools, they helped me bridge the gap between thinking and making.

3.2.1 Time-scape

This times-cape maps a variety of rhythms across different scales for each category. The other rhythms simply go unnoticed when our sense of time is only attuned to conventional 'clock time.' Calendars are constructed with an underlying logic that favours certain ideas over others. For example, a solar calendar chooses to keep time with the sun over the moon. Such a calendar reproduces that logic but often at the expense of knowing other temporalities. Acknowledging diverse temporalities was the first step in the process.

3.2.2 Polarity Map

I used this map to create four distinct quadrants - time as lived against time as considered & time that is personal against time that is shared. I plotted old and new ways of marking time on it according to their adherence to these four criteria. This helped me imagine alternate temporal realities while considering them in relation to one another.

[illegible]

Figure 6: A timescape of diverse rhythms

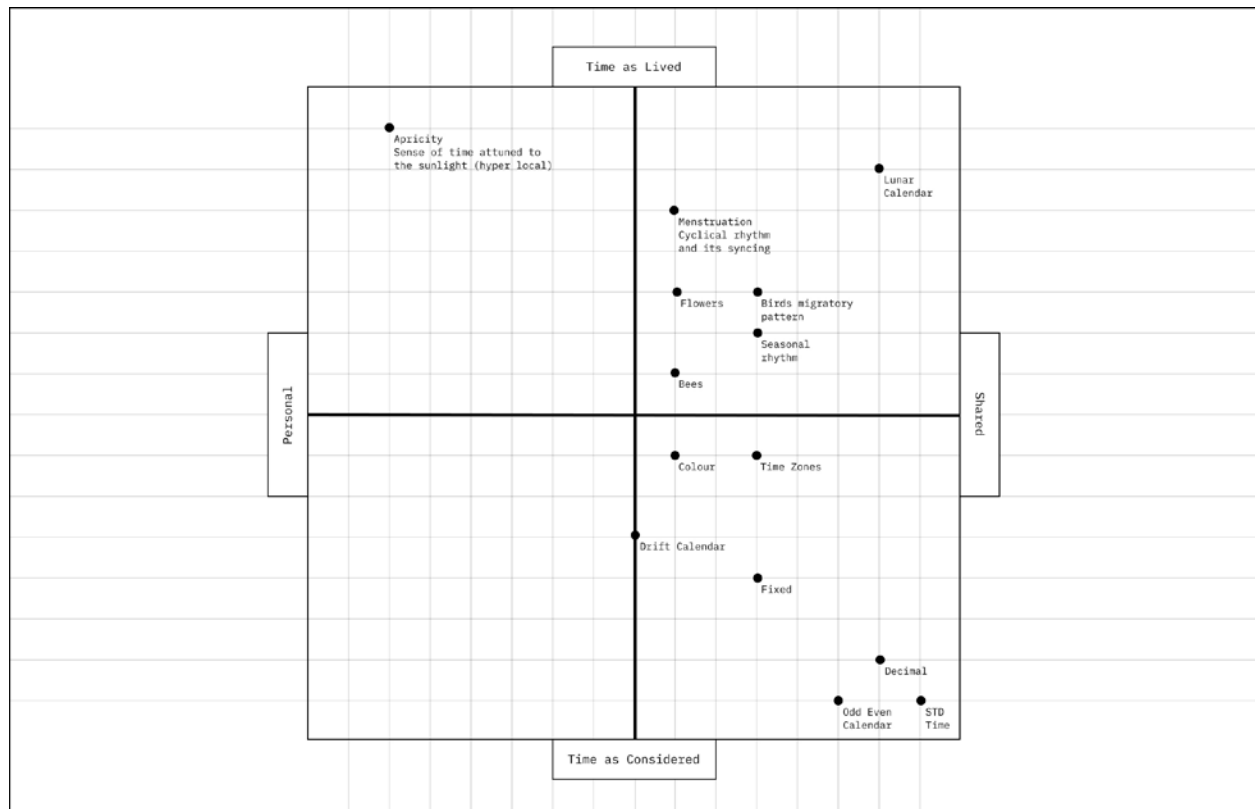


Figure 7: Polarity map

3.2.3 Tactile tools for feeling time

We might know what time it is by looking at our clocks or calendar. But could we also feel it through intuition and alignment to natural rhythms?

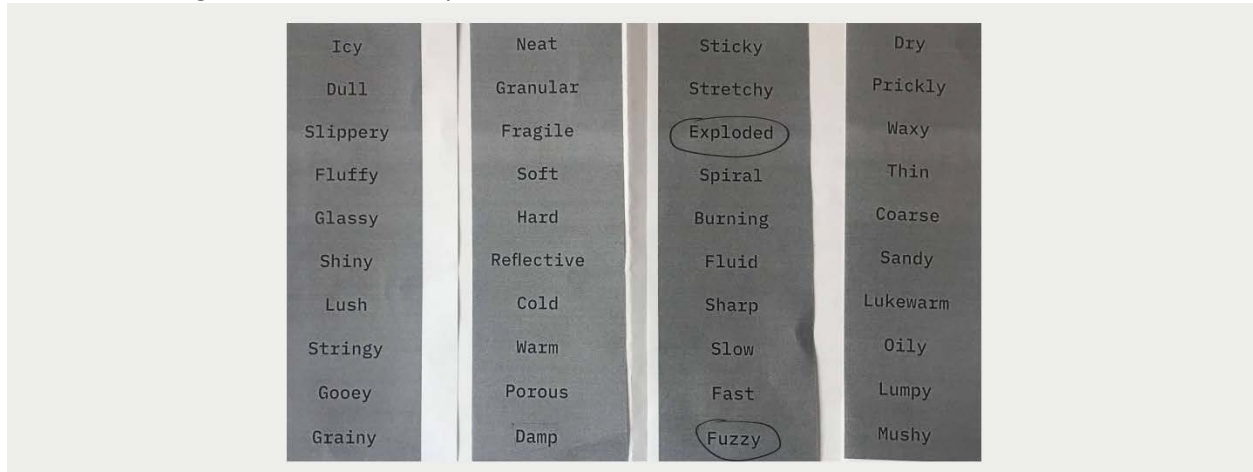


Figure 8: A set of tactile words used as prompts for feeling time

These other attributes of our temporal experience have no language and hence no means of formal access or navigation. The dominant vocabulary of time is limited to time as pace, direction. This collection of 'tactile' attributes can help in accessing diverse embodied experiences of time.

3.3 Participatory Design`

3.3.1 Provo-types I

I created a series of provocative prototypes: artefacts which, with their unconventional form and materials, were meant to cause a reaction. I hoped to introduce them in the early exploratory phases — to provoke and engage people to imagine possible alternatives. For example - the Orange took decay rather than grown for marking time, the Heirloom timekeeper explored long forms of interaction by stretching the calendar over a lifetime, the Lunar timekeeper challenged uniformity of time by making night fluctuate with the phases of the moon. These timekeepers were not 'functional' in a traditional sense, but rather highlighted some of the latent temporalities that often go unnoticed. Drawing from time reckoning systems & their underlying rules, I created a specific set of instructions for each artifact. These instructions were meant to channel participants' attention to particular temporalities that one may not experience in their daily life.

- Decaying timekeeper: Orange put forth decay and breakdown over growth. With its ambiguous time, it encouraged participants to observe time with a decaying fruit. When the orange lost its colour and dried into a rusty remnant, it was replaced with a fresh piece of orange. The ritual was to be repeated.
- Heirloom timekeeper: The Heirloom timekeeper was a stitched life calendar. It asked the participants to undo a stitch with each passing day. Like other heirlooms, this would be to be passed on.
- Fluctuating timekeeper: This fluctuated with the phases of the moon. Instead of assuming a uniform duration for a night, the timekeeper reflected the changing shapes of the moon.



Figure 9: Decaying timekeeper

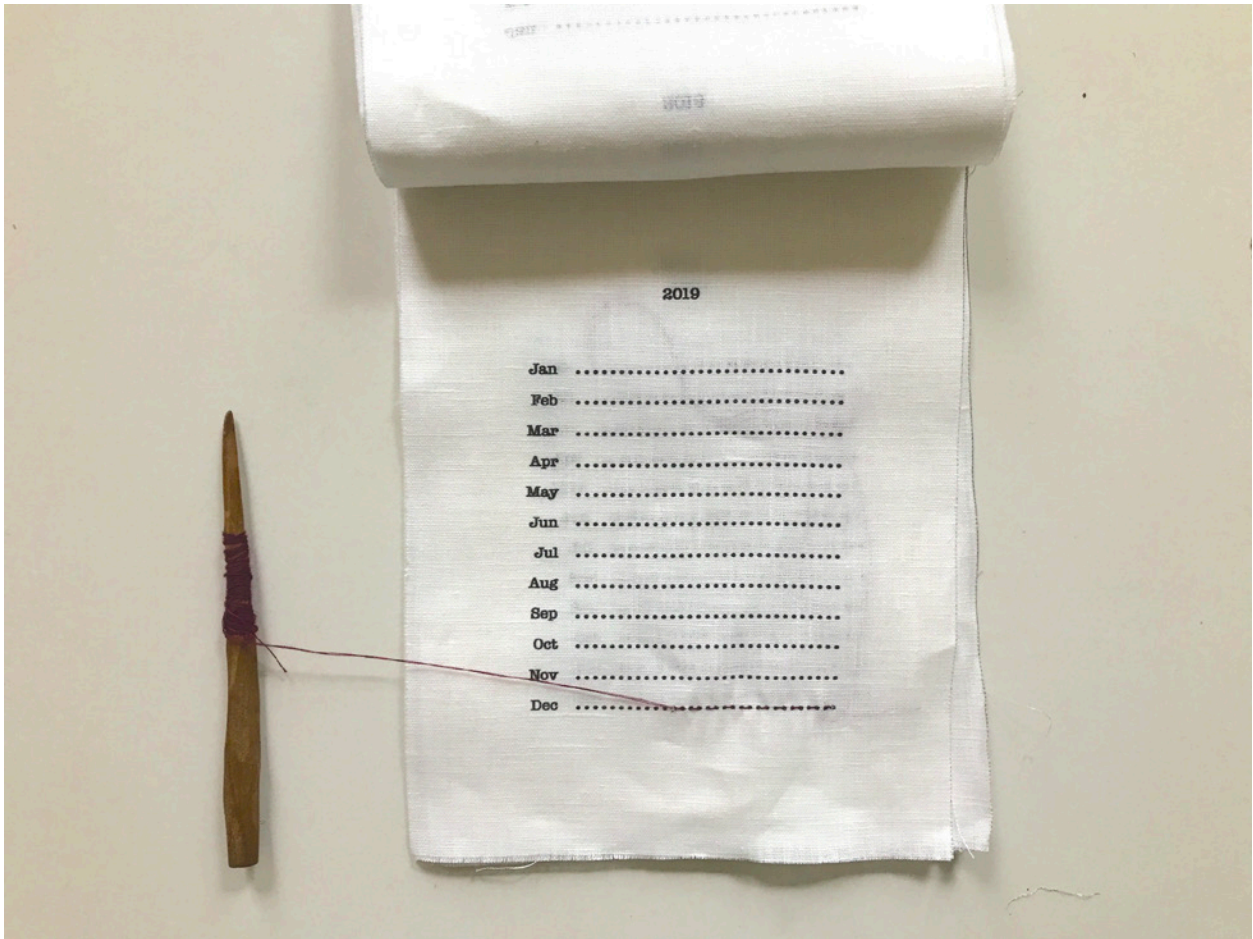


Figure 10: Heirloom timekeeper

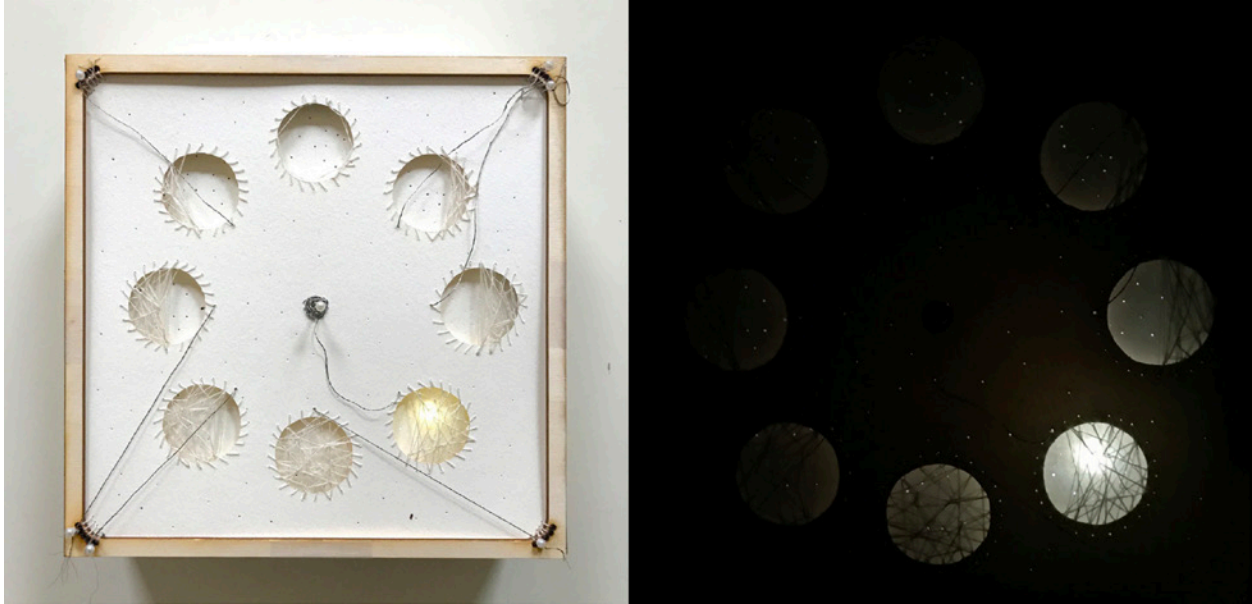


Figure 11: Fluctuating timekeeper

3.3.2 Workshop I

I conducted a participatory design workshop with these artefacts. I believe that people possess the rhythms or memories of other rhythms. The workshop was a way to unearth these rhythms. I aimed to create a space where unique personal experiences with time would surface. These time-keepers were used to stimulate discussions about time as a malleable concept in the workshop. Based on this, participants selected a prompt (a timekeeper that waits, a calendar that lies, a calendar for the collective rhythm) from a pool and proposed a calendar. This activity was followed by an informal sharing session.

The conversations that emerged through these interactions brought forth peculiar yet distinctly personal anecdotes about time. For example - one participant responded to the prompt - 'timekeeper that waits' with a system where the calendar could reset every tenth day. The calendar waited for everyone to catch up. The idea stemmed from wanting to preserve a personal sense of time without being totally out of sync with the community one lives in. The participant could trace the roots of this 'pause' to the ritual of Sabbath. In this way the group imagined timekeepers that were not necessarily functional but fulfilled poetic needs.

3.3.3 Provo-types II

Using the concepts discussed in the workshop, I created a set of alternate calendars. Each calendar had an accompanying 'rule'. These seemed absurd. Yet they were not unreal. They were simply at odds with popular worldview.

- Even Odd Calendar: Here work and rest are equally important. If you are born on an Odd day, you work on Odd days and rest on Even days. Evens do the opposite. But because a year has 365 days, Evens get an additional holiday.
- Sun Calendar: Here time is tethered to the sunlight. Natural light makes people acutely aware of the time. As a result, people prepare to rest on a cloudy day and work extra hours during a sunny one.
- Lunar Calendar: Here sleep is attuned to the phases of the moon. On a no moon night, people sleep for longer. On a full moon night, they sleep less and instead work for longer hours.

- Sync Calendar: Here a week has five days. People follow their own rhythm for the first four days. On the fifth day, communities gather and sync their time with each other.

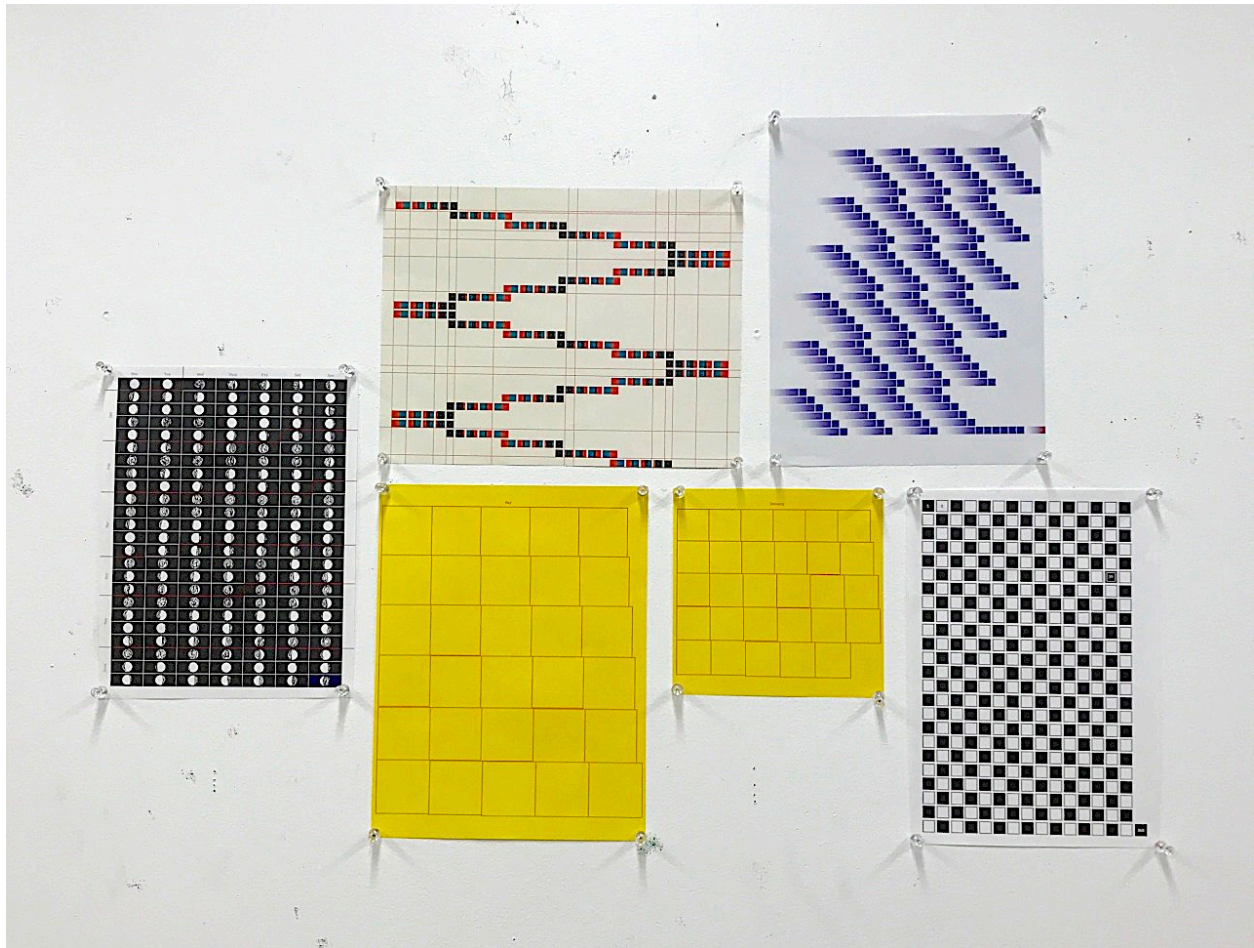


Figure 12: A collection of alternate calendars

3.3.4 Workshop II

A second round of artefacts were created for another informal workshop. This workshop included a wider range of participants (age, profession wise) who were unfamiliar with the project. Instead of a workshop, this was like a friendly tea party. A big round table with books & lots of finger food was surprisingly valuable for sustaining conversations. The initial activities involved doodling on a 'tactile worksheet' for feeling time. This broke the ice and allowed the participants to become comfortable with each other. The participants picked a calendar of their choice along with a few prompts that nudged them to imagine the world the calendar existed in.

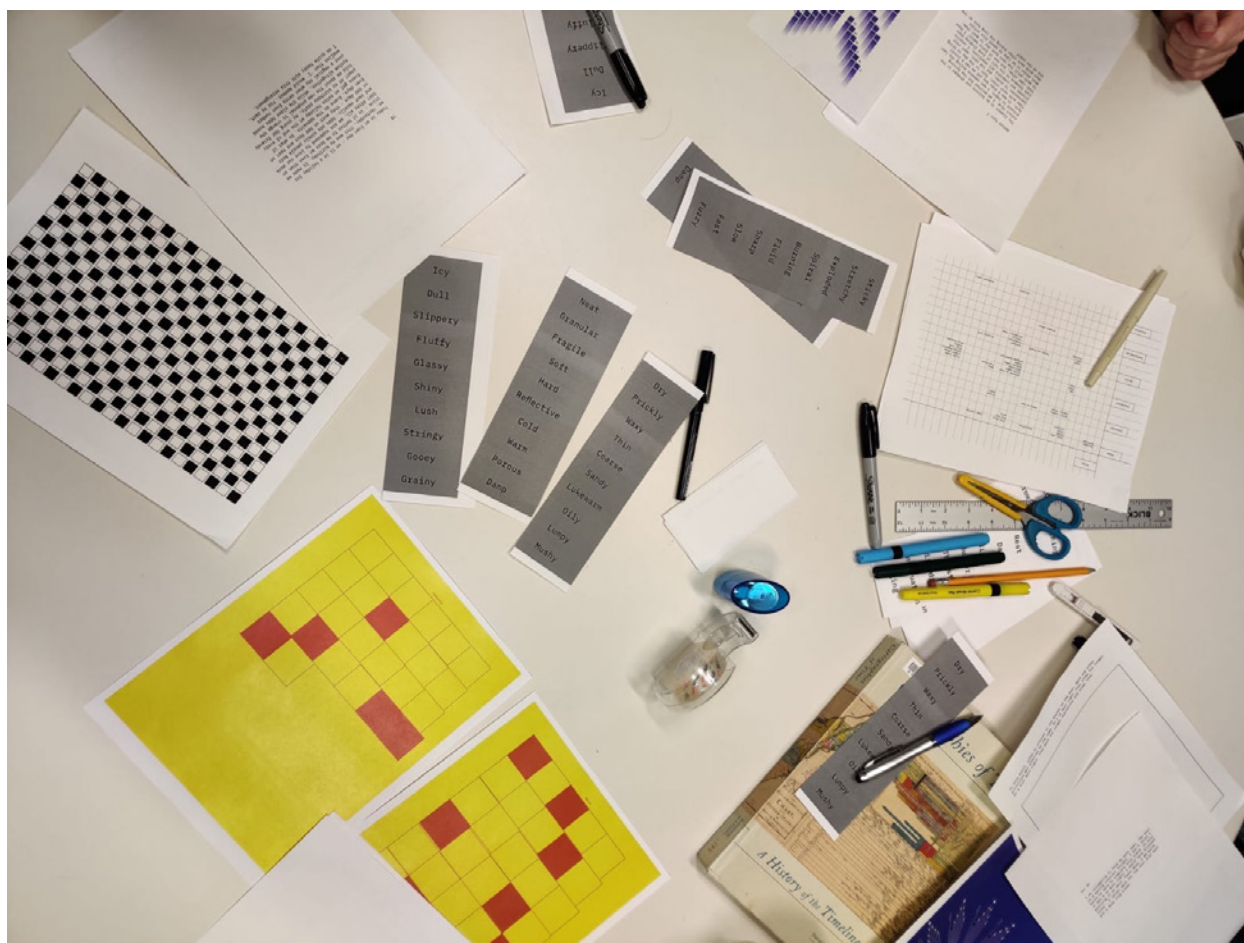


Figure 13: Workshop tools

- What would be some of the important dates in this calendar? Why? (celebration, disasters, new year, festivals, state holidays)
- What kind of society is it part of? What might be their dreams, hopes, fears? Can you imagine their cultural values?
- What kind of person would want this? Where would they keep it? How would they take care of it? What kind of technology, economics, family structure, social relations, law and order, education, politics, culture does it have?
- Who would not like this calendar? Why?
- Where do you think such a calendar could be found, bought or made?

Together, as a group we constructed social realities associated with each calendar. While the trope of standard time and a Gregorian calendar had a strong hold over the initial discussions, the participants made insightful remarks. For example - the Even Odd calendar was regarded as 'divisive' yet something that demanded 'collaboration' in order to survive. Its asymmetric binary relationship acknowledged the deeply uneven time politics involving night shift workers. The sync calendar was considered to support anticipation and patience. As an antidote to our world of 'instant gratification', in this imaginary world, the concept of waiting would cease to exist. The sun calendar made participants reflect upon their own 'access to sunlight' in a city like New York while imagining a completely altered cityscape while the moon calendar made them ponder over our bodily links to natural rhythms. And so, the discussion decoded the values embedded in calendars.

3.3.5 Calendar of hopes, dreams and fears

In the end, each participant was gifted a personal life calendar. This generated quite some dialogue amongst the participants. Beyond the initial novelty of seeing your life as a finite 40 inch by 40-inch square, viewers sank into thoughts about a life spent and a life left for themselves. Instead of a calendar helping one plan the next day, week, month, this calendar asked deeper questions about dreams, hopes and fears. Each life calendar was mapped against the temperature data (climate data predictions). The temporal entanglement of human time with climate/ ecological time was created to inspire a different daily life. Today my calendar can inform me when my next deadline is scheduled, but what if it could tell me the rising temperature schedule. Would seeing your life laid out in a single frame affect how you live?



Figure 14: Life calendar being discussed with the group. It was eventually put up in the participant's homes.

3.3.6 Living with the calendars

The workshop ended with an email game for the participants. Each participant picked a calendar of their choice. The agenda of the email game was to schedule the next meeting while living these 'alternate calendars. This activity offered a platform to embed these conceptual timekeepers into real life. The endless negotiations with each other & their respective calendar could be juxtaposed with the everyday demands of recalibration to highlight the absurdity with each case. This gathering was successful in bursting the hegemonic bubble of time such that social and relational contours of time experiences could surface. By decoding these seemingly bizarre calendars & imagined realities, the participants were confronted with the plurality of their own time experiences that often escape reflection.

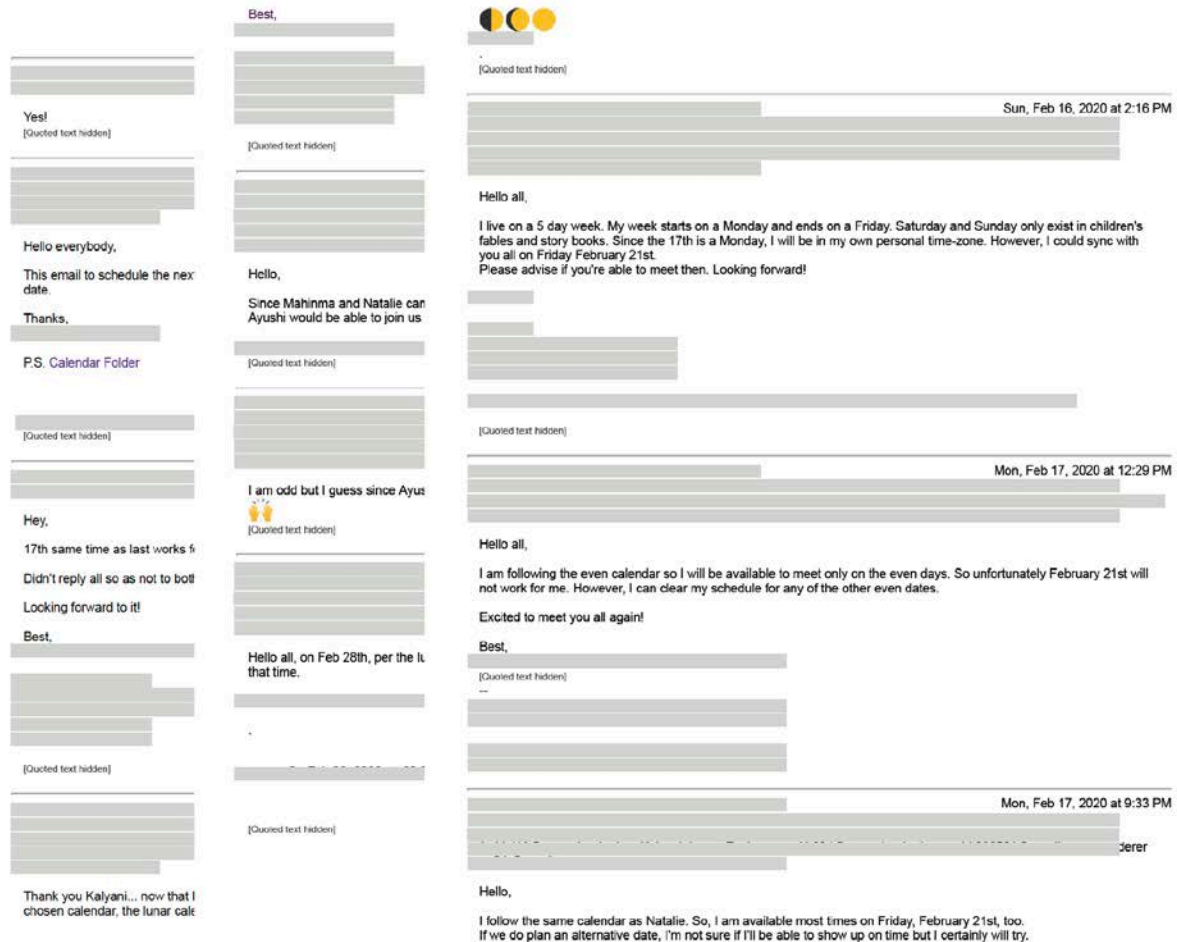


Figure 15: Email thread from the calendar scheduling game

3.4 Estrangement

“The function of poetic art is to counteract the familiarization encouraged by routine modes of perception. We readily cease to ‘see’ the world we live in, and become anesthetized to its distinctive features.” (Dunne, 2005, p. 35) This effect of strangeness, of blending the unfamiliar with the familiar can create a mental distance between the viewer and the artifact. The distancing mechanism is crucial in making a viewer see through social, cultural and political conventions of our world as not natural but entirely human made. I established this distance by recreating familiar timekeepers such as calendars for unfamiliar worlds. Amidst this project, due to COVID-19 pandemic I was greeted with unexpected creative constraints. Without the usual access to materials or making processes options for form were suddenly limited. Within these constraints, voicemails emerged as a viable solution. Voicemails offer a unique format in that they strictly exist ‘out of time’. The act of recording a message in the present knowing it would be heard by someone else another time is incongruous/ discordant. As a medium, it is a powerful metaphor for linking disparate and almost misaligned temporal spaces. The standard format of a voicemail afforded familiarity (in fact they are uncomfortably close to our own) while the messages added strangeness. Imagining life with alternate systems of reckoning time instead of the known calendars was challenging. Hence the alternate calendars were often met with ‘practical’ questions. The audience grappled with these calendars to make sense of life. In response to this, the voicemails offered

a peek into the elaborate socio-cultural polyrhythms influenced by the alternate calendars. In doing so, they rendered alternate realities possible.

3.5 Form

Calendars represent choices individuals & communities make about the way they will tell time. These choices reveal who and what they choose to keep time with. In this way calendrical systems express the rhythm of collective activities. At the same time, the same calendars can also generate conflicting experiences. Coexistence with other forms of conceptualizing time emerged as a valuable insight. The ultimate goal of the project became not to do away with the current calendar but offer a greater variety. Hence creating recurring artifacts through collective experience took precedence over creating singular artefact. Since the workshops were a rich source of inspiration, I also chose to work with the participants as voice artists.

3.5.1 Calendar Collective

The final form of the project evolved into a fictitious establishment called the 'Calendar Collective'. The archive and voicemails were presented in the form of a video. Here is a brief description of the collective - Calendar Collective is a living archive of alternate calendars. It is an ongoing investigation for collecting, cataloguing and publishing calendars that are little-known to our world. We use openly contributed voicemails as are our unique research material. The archive offers an uncommon collection of calendars traced through these unwritten and slightly incongruous fragments.

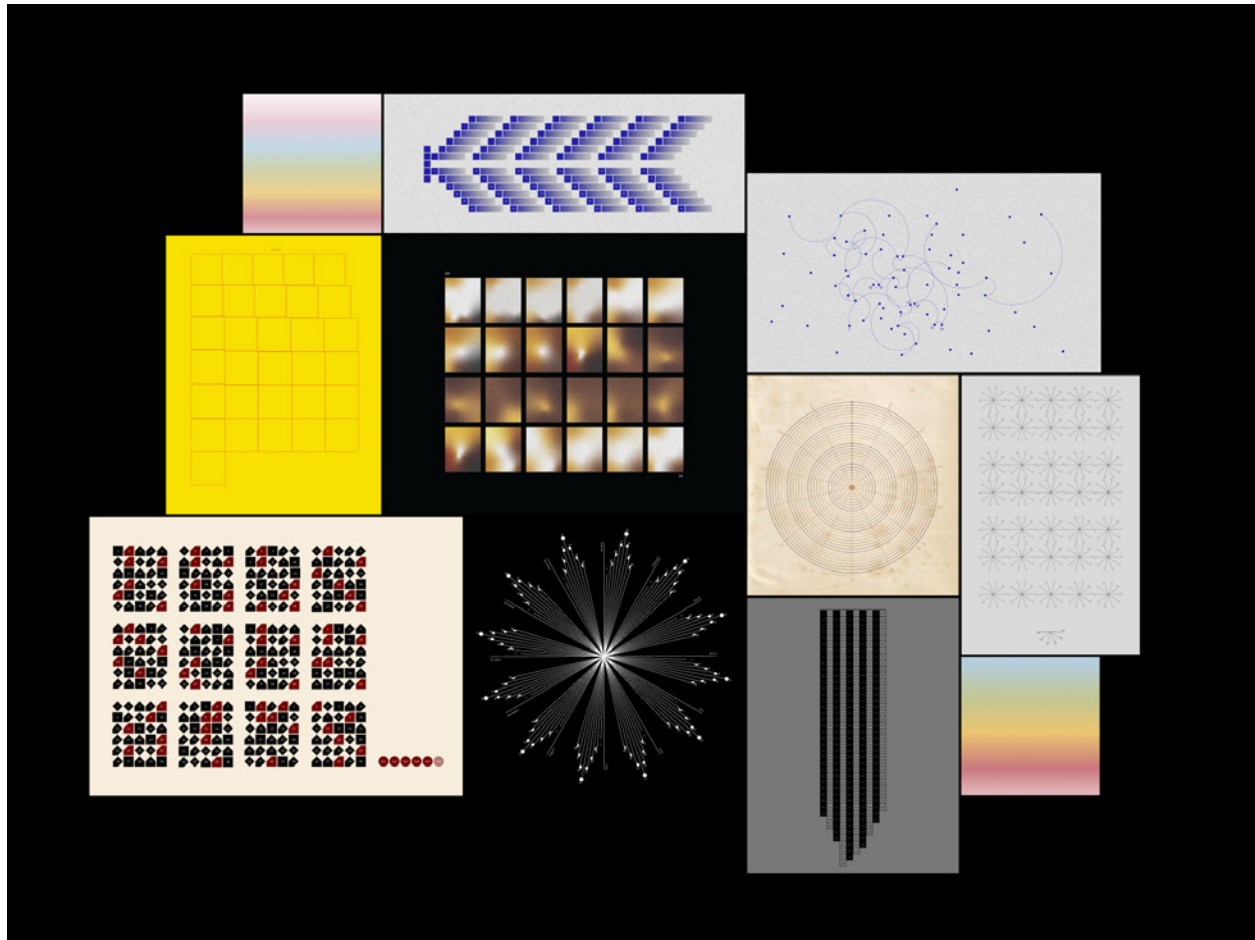


Figure 16 : Calendar Collective

It asked for the audience's participation through its call for contribution: We are open most days about midday, seldom as early as the daybreak, some days as late as dusk. We close about when the sun goes down or twilight and occasionally at midnight but sometimes even beyond midnight. Some days we are not here at all, but lately, we are here most of the time except when we are somewhere else. If you would like to contribute, please leave us a voicemail at 646.371.5045.

3.5.2 *The Archive*

After multiple iterations, conceptually and visually, I created nine alternate calendars. Some of these have references to the historic calendars. Accompanying voicemails were crafted carefully to contain clues that hint at the world where such a calendar could exist. The calendars were mapped on the polarity map and presented on the spectrum order of 'time as lived' to 'time as considered'.

Here the night is variable. It fluctuates with the phases of the moon. Some nights are short while others long.

"Hello! Is this Lakeside Resort? I am calling to dispute a charge... my name is Jon Packles and I stayed in your hotel for a night let's see... on the twelfth and I think in the room 412. It was a No Moon night...so it should have been a baseline charge ...it was hardly a few hours- but you seem to have charged me for a Waxing Crescent. Can you double check and get back to me as soon as possible? Thank you

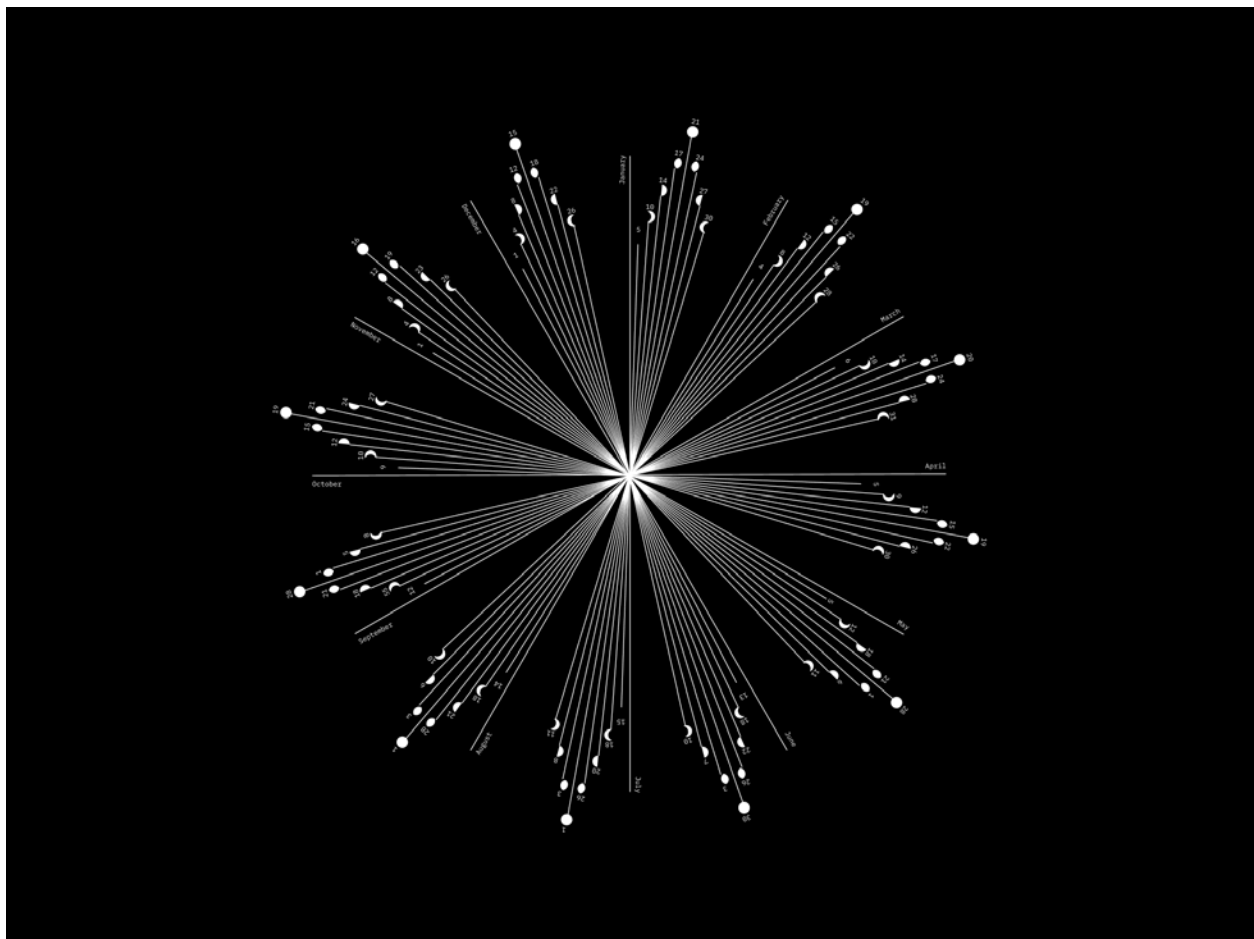


Figure 17: Moon Calendar

Here the length of the day is attuned to the sunlight. The day is as large as the sunlight one gets.

"Good morning Miss Ashima. This is Mark, from Bright Homes Brokers. I showed you a few houses last week...you said you want a place with at least 2400 sols per annum...usually these places are super hard to find...especially in a city like New York ..unless you increase your budget for a penthouse- but I found a great place with 2437 sols per annum... that should give you roughly...umm... six and a half sols every day. That is a lot for this location and price. It is a rare find... so let me know soon."

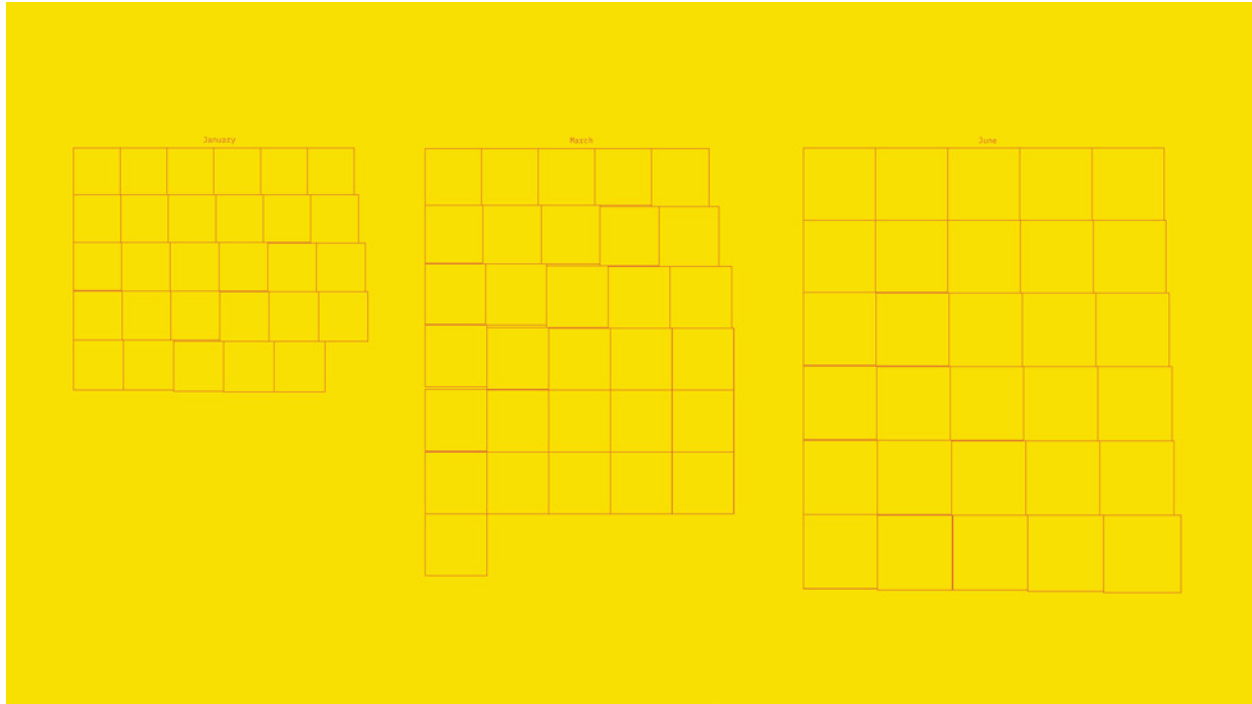


Figure 18 : Sun Calendar



Figure 19: Colour Calendar

Here a day is 24 hours long. But some hours are more colourful than others.

"Heyy! Are you there yet? I just left. I am so so sorry. Right now, its Red Lilac Purple with a hint of Skimmed Milk White. I should be there before it turns Ivory White. Hope you don't have to wait for too many shades. Call me when you get this. See you soon"

Here time blooms and withers with the opening and closing of flowers.

"Hey Milo, do you know any chrono-biologist in the area? Ava is starting her night shift...and we don't really have anything for that time. And you know .. we just moved here ... so we are not quite familiar with the local bloomers.. plus i hardly have a green thumb - so just want something we can tend do.. and I don't mind paying for a house call. Anyway ...let me know if you have an expert....bye."

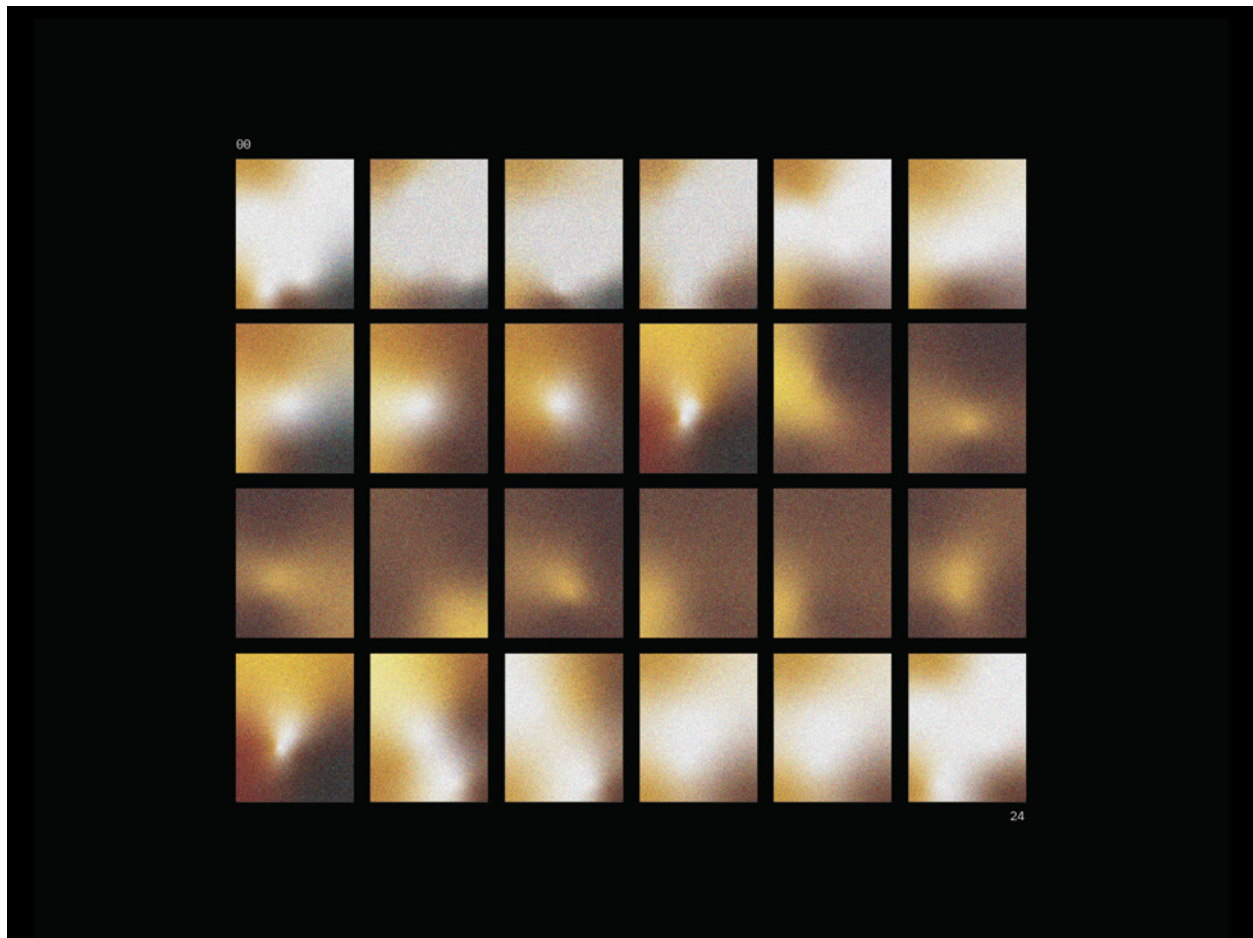


Figure 20: Flower Calendar

Here time is aligned on the first day of the week. Then it begins to drift away in no fixed order or direction, until the start of the next week when it is aligned again.

"Hello, my name is Sukanya.. This is the fifth time I calling you and I have still not received any response. My ISP code is 243179...again its 243179. My time isn't drifting. In fact, it's moving quite precisely ..so right now I am just avoiding looking at it ..I mean it's silly if I always know the time. So could you please send in someone to fix it during the next sync. Thanks"

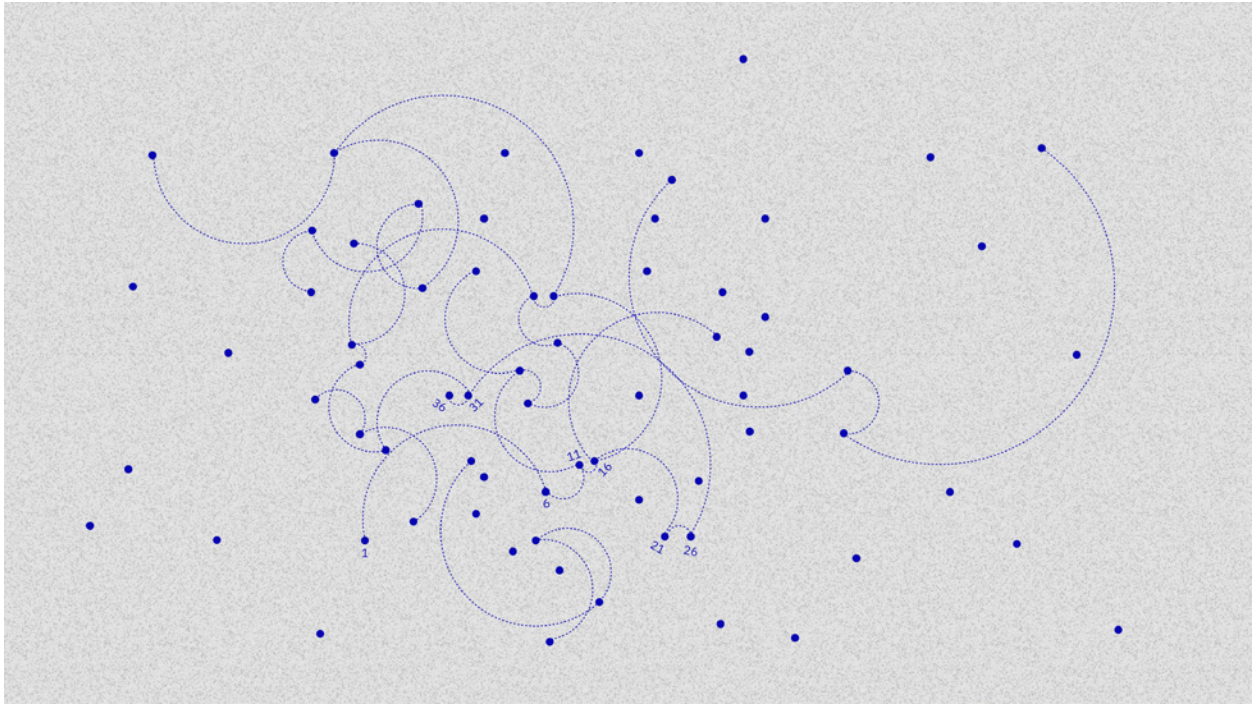


Figure 21: Drifting calendar

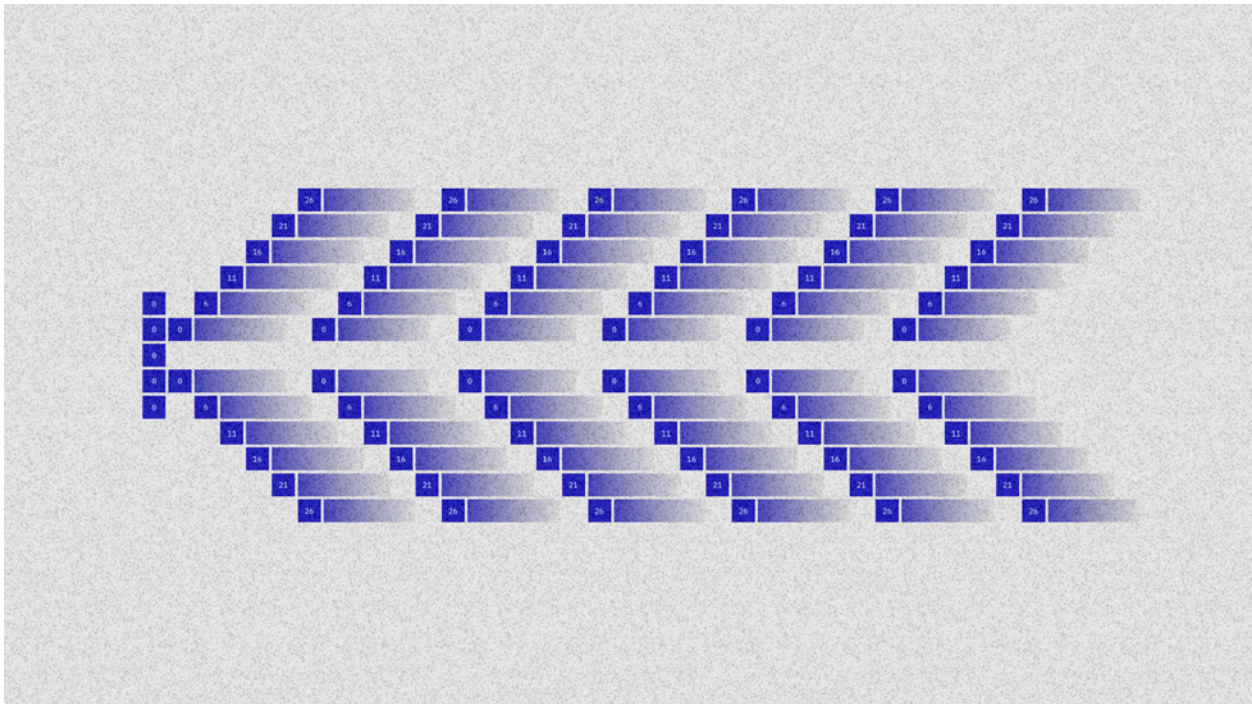


Figure 22: A malfunctioning Drifting calendar

Here every year is the same - with 13 months of 28 days each. Every date is fixed to the same weekday. So, the 17th is always a Tuesday.

"Hello, this is Meera from Calendar Care shop. The heirloom calendar you had given is now fully restored. It took us a while because this piece was exceptionally old and fragile. But we have managed to mend it - so it's ready for a pick up."

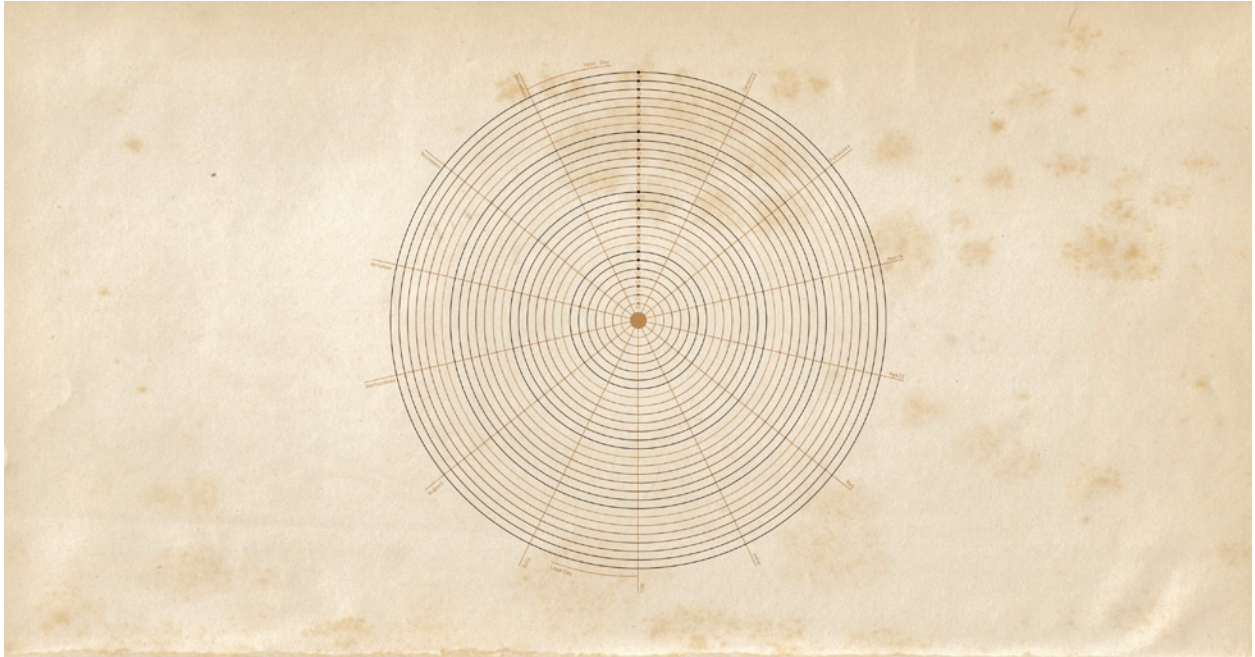


Figure 23: Fixed calendar

Here one is either an Even or an Odd. Evens are born on Even days. They work on Even days and rest on Odd days. Odds do the opposite. But Evens get an additional holiday at the year end.

"Hey Mukta! Do you know an Even home care nurse? My mum is going to be living with us and I need someone to take of her. I found an Odd nurse but for some reason I can't find an Even nurse. It's a little urgent .. so let me know if you have any leads"

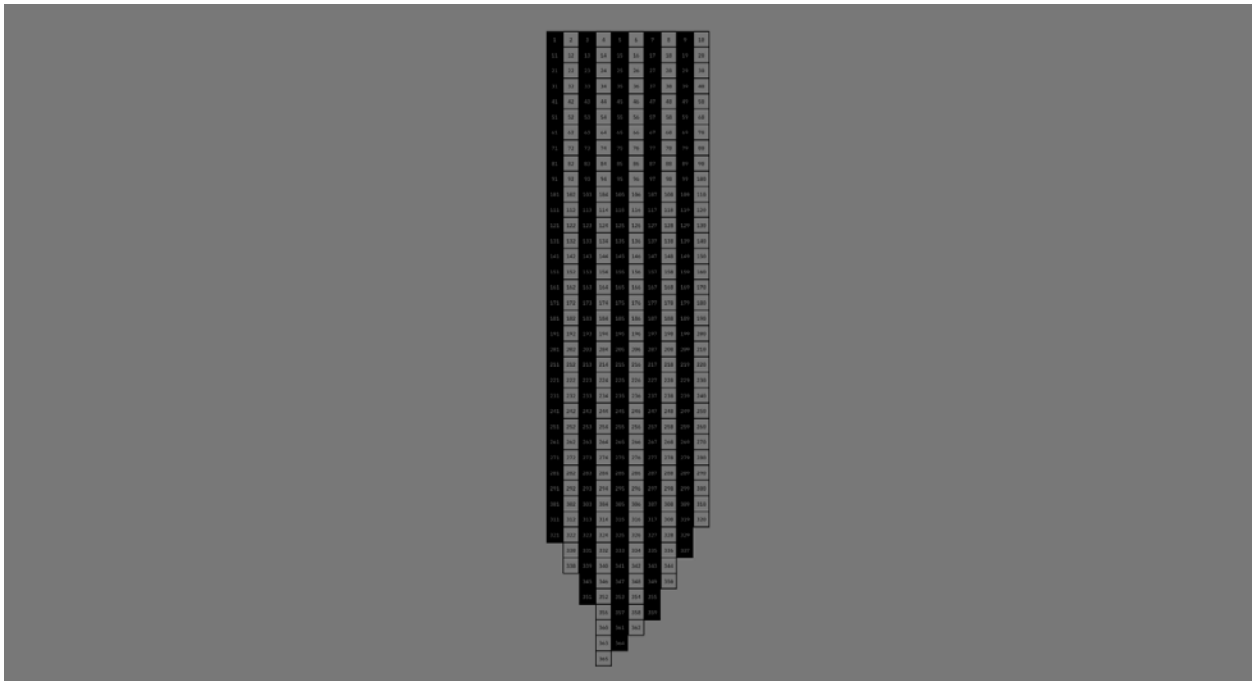


Figure 24: Even Odd calendar

Here a year has only weeks. Each week with 10 days. Every day lasts for 10 hours with 100 minutes in an hour and 100 seconds in a minute.

"Oh my god!! I just heard - was she really born at ten past hundred? and that too on the tenth? What a lucky baby. Congratulations! Can't wait to meet the little

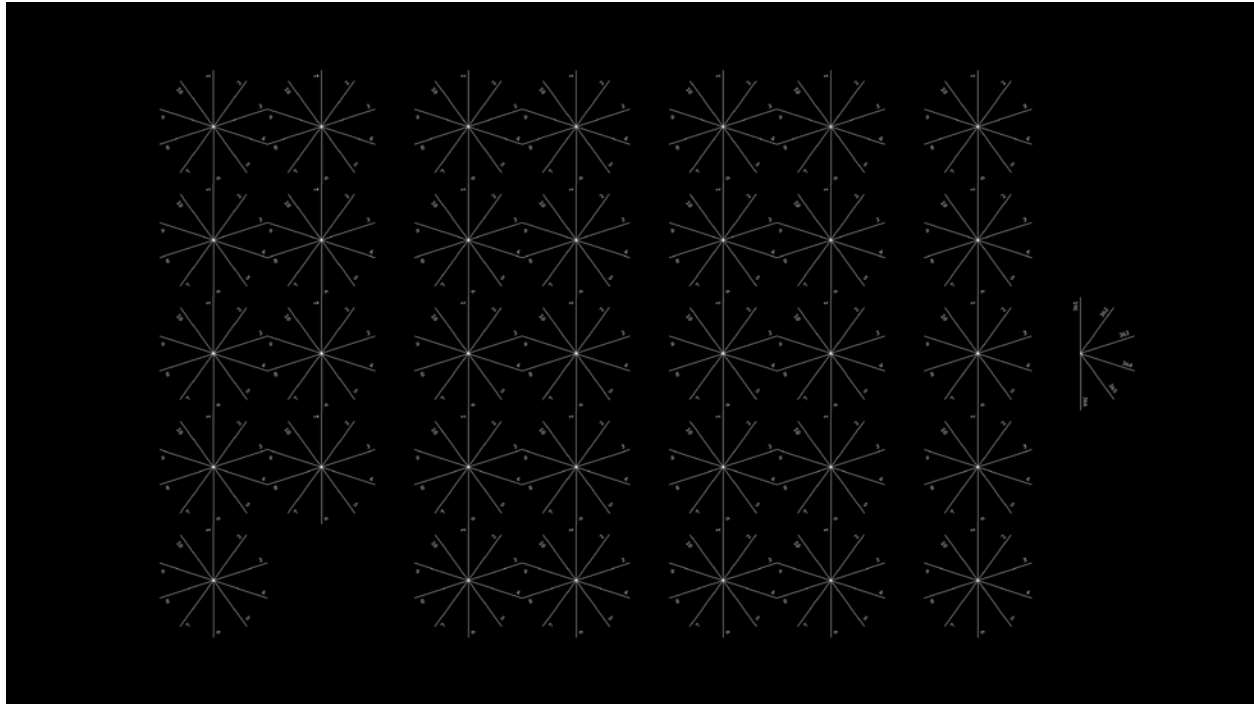


Figure 25: Decimal calendar

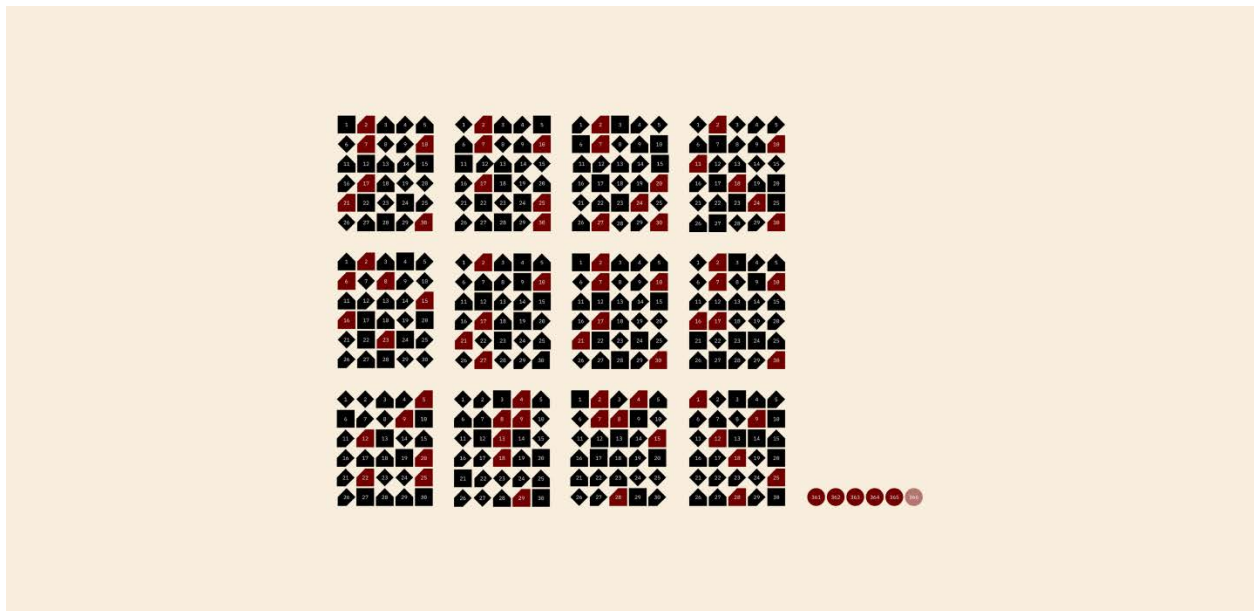


Figure 26: Pause calendar

Here every month looks different - an arbitrary arrangement of five types of days. One such day is a personal day of pause.

"Hello Oliver Sharma. This is an automated message update from All Rounds Company. We have carefully reviewed your application, and while your background is impressive, unfortunately we've decided to move ahead with someone, whose Pause Day is more aligned to our business needs. We appreciate your time, and should you consider changing your current Day of Pause, we would be happy to reopen the position for you. Good luck with your search. Thank you"

3.5.3 Website

In order to make this accessible and open source, I used web as a platform. The website can be found at www.calendarcollective.com while the video is at <https://vimeo.com/416958924>.

4. Conclusion

Global dissemination and imposition of Gregorian calendar exposes a violent yet invisible attempt of erasure, the one where colonising cultures' agents systemically denigrated indigenous calendars and flattened local notions of time. This centralised order demands calibrating diverse senses of time to a notion of time - and, more specifically to the colonizer's notion of time. It has bleached the rich, vibrant assemblage of calendars to the pale one we see today. Our modern digital calendars with their colonial values have effectively colonized not just our past but also our collective future. To change our future, we need to explore our relationship with time.

With the world in lockdown, the daily lives of millions of people are unmoored. Time is bent completely out of shape. This is a gentle reminder that exploring and adopting alternate calendars is no longer a far-fetched thought. The pandemic has made our time models partially permeable. As we brace ourselves for the new reality, I offer this collective to consciously traverse realities in ways previously unimagined or unimaginable.

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About the Author

Kalyani Tupkary: I am a hybrid designer and researcher from India currently living in USA. I hold a B.Des. from the National Institute of Design, India and an MFA (Design and Technology) from Parsons School of Design, USA. As a designer from a previously colonized country, I use ordinary objects to unfold alternate histories and marginalized futures that otherwise remain in the unexplored nooks of our everyday world. An anti-disciplinary designer, I draw, solder, stitch and play with pixels. I am not a specialist. Instead, I inhabit the fuzzier overlap between craft, design and technology. My process starts by steeping in history and rooting in research to unravel the values knotted in our default worldview. I think through making, always with others, playing with the materiality of alternate worlds through code, analogue, digital drawing and electronic textiles. I conduct unconventional investigations to create artefacts as portals to alternate worlds. These artefacts then become tools for dreaming up new ways of seeing our world. As a critical yet optimistic designer, I employ technology to fulfil poetic needs.

Práticas de Ensino para Designers *Sentipensantes*

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Neste trabalho, refletimos sobre como se pode ensinar o Design como forma de estar e participar no mundo. Identificamos no conceito de colaboração, uma quebra necessária ao modo dominante ensinado globalmente em escolas de design, caracterizado pelo *ethos* individualista da sociedade capitalista. Contudo, diversos pesquisadores da área apontam a necessidade de uma maior compreensão sobre os modos de ensino e as competências necessárias aos futuros designers para participar de processos colaborativos. Para tanto, discutiremos aqui a necessidade de compreender e superar as limitações da forma pela qual a colaboração em design é praticada e compreendida. Em muitos processos de design a colaboração é incorporada de um modo asséptico, possível de ser tecnicizado em práticas de co-design. A proposta deste artigo é trazer o conceito de *sentipensante* para o agir projetual, e com isso a corporeidade, os afetos, a conexão consigo mesmo e com a comunidade para os processos colaborativos. Propusemos o conceito de sentipensação projetual e refletimos sobre sua contribuição no processo formativo de estudantes de design. Apresentamos um exercício de ensino que parte da colaboração entre professores e alunos para co-criar o plano de ensino a partir do conceito de *sentipensação*: um agir projetual *sentipensante*.

sentipensante; colaboração; ensino em design

1. Movimento 1: A necessidade de novos princípios para o Design

Compreendemos que há uma compreensão bilateral do papel do design em relação às crises atuais, tais como, entre outras, crise ambiental, pobreza, e crise da democracia. Por um lado, há o entendimento da co-implicação do design na constituição dessas mesmas crises (ver por exemplo Ceschin & Gaziulusoy, 2016; Fry, 2010, 2017; Schultz et al., 2018). Por outro lado, há a fé no potencial do design de enfrentar

as situações desafiadoras da atualidade e promover novas formas sociais (ver, por exemplo, Brown, 2009; Manzini, 2015).

De acordo com vários autores da área (Fry, 2017; Schultz et al., 2018; Del Gaudio et al., 2020), o potencial de contribuição do design para compreender e reverter as crises atuais é muito limitado pela configuração atual da disciplina e da prática. As práticas do design dominante, ou seja, daquele 'design mainstream' difundido e praticado a partir do Norte Global epistêmico têm se desenvolvido a partir de valores e princípios modernistas e capitalistas: o tempo linear, a separação entre razão e emoção; a verdade universal, entre outros. Portanto, compreendemos que para o design de fato contribuir, é necessário colocar em discussão e reinterpretar seus conceitos-chaves e práticas. Precisamos identificar outros princípios e valores éticos, estéticos e políticos fundados na compreensão plural da realidade e das possibilidades de viver e de ser. Neste sentido, as ontologias e as epistemes dos povos originários do Sul Global nós abrem caminhos ao se desvincularem dos conceitos da modernidade de desenvolvimento e progresso (Santos & Meneses, 2013).

Ao refletirmos nisso, refletimos sobre a educação em design como área de intervenção fundamental. É no nosso trabalho de educadores em design que as sementes para uma prática de design diferente podem ser colocadas e espalhadas. Ao pensarmos como transformar a educação em design, o conceito de colaboração se torna fundamental enquanto chave na compreensão de uma ruptura necessária ao modo individualista de design, presente nos discursos do Norte do mundo e espalhados globalmente em escolas de design.

Se colaborar é chave na educação de designers e de cidadãos, porém, assim como já apontado por vários pesquisadores da área, precisamos compreender como ensinar aos futuros designers aquelas competências que irão permiti-los participar de processos colaborativos (Dindler & Iversen, 2014).

A nossa investigação abraça este questionamento, mas ao mesmo tempo é movida também pela inquietação pela forma pela qual no design as práticas de design colaborativas são compreendidas e praticadas. Ou seja, não só queremos entender como ensinar a colaboração como forma de projeto, mas também reinterpretar a colaboração a partir de novos valores e princípios éticos, estético e políticos.

Com relação a colaboração, o prefixo "co" traz a ideia de colaboração para os processos criativos, como resultado de um trabalho conjunto entre designers e não-designers. (Sanders & Stappers, 2008). Mas o que seria uma colaboração criativa? Que *ethos* funda esta prática? Esta reflexão está ausente de muitos processos projetuais como os de design de serviços e de design para inovação social, entre outros, onde a colaboração é incorporada ao design de um modo asséptico, possível de ser tecnicizado em práticas de co-design. É necessário discutirmos os modos de relação presentes nestes momentos para que efetivamente consigamos transformar as práticas projetuais em práticas capazes de promover processos mais plurais, mais democráticos e inclusivos.

Por isso nos engajamos na exploração de como outros modos de colaboração projetual podiam ser ensinados aos futuros designers. Fomos movidas por algumas perguntas: Como repensar o conceito de colaboração de uma forma que esteja alinhado com uma compreensão plural da realidade e das possibilidades de viver e de ser? Como se pode ensinar esta nova forma de colaborar e promover a sua prática na sala de aula? E como isso pode contribuir para o processo formativo de estudantes de design?

No nosso percurso interpretamos o conceito de colaboração a partir da exploração do conceito de *sentipensante*. Este último foi explorado pelo trabalho dos autores FalsBorda (2009) e Escobar (2014). A partir disso, já que o conceito de *sentipensante* traz consigo a corporeidade, os afetos, a conexão consigo mesmo e com a comunidade (e, portanto, sua relevância para os processos colaborativos), foi ulteriormente elaborado pensada a prática projetual por meio dos autores Galeano (2005) e hooks

(2020; 2021). Isso porque de alguma forma cada um deles explora a indissociabilidade da mente e coração. A partir de tudo isso, emergiu o conceito de sentipensação projetual.

O nosso objetivo neste trabalho é o de apresentar o conceito de sentipensação projetual como proposta metodológica de ensino de design para ir além dos *ethos* capitalista. Para fazer isso apresentamos um exercício de ensino que parte da colaboração entre professores e alunos para co-criar o próprio plano de ensino a partir do conceito de sentipensação: um agir projetual sentipensante. Descrevemos a forma pela qual o conceito foi aplicado: mostramos como a atividade acadêmica foi construída e como os alunos avaliaram o percurso de aprendizagem. Finalmente, tentamos refletir sobre sua contribuição no processo formativo de estudantes de design.

2. Movimento 2: Da colaboração a sentipensação projetual

Nós exploramos o conceito de *sentipensante* a partir da compreensão da inseparabilidade entre razão e emoção, e da relevância de perceber o que afeta o nosso modo de estar no mundo por meio do corpo, e de, por meio desse sentimento, refletir sobre a nossa ação. Para explorar esse conceito de *sentipensante* partimos dos autores FalsBorda (2009), Escobar (2014), uma expressão literária de Galeano (2005), de bell hooks (2020; 2021), que nos traziam essa relação indissociável entre a mente e o coração. FalsBorda (2009) encontrou esse pensamento não-dual na episteme de ribeirinhos peruanos, que Galeano popularizou na sua obra: “O livro dos abraços” (2005). Nas palavras do autor, “diferente da educação que nos ensina a divorciar a alma do corpo e a razão do coração, os pescadores das costas colombianas inventaram a palavra sentipensador para definir a linguagem que diz a verdade” (FalsBorda, 2009). E aí Escobar (2014), ao recuperar FalsBorda, traduziu o sentipensar por *coracionar*, ou seja, raciocinar com o coração. A partir dessas referências, especulamos, então, o conceito de sentipensação: um agir projetual sentipensante. Trata-se de um modo de praticar design guiado pelo diálogo amoroso e pela escuta atenta, um diálogo horizontal que respeita cada ser humano em sua diversidade de comportamentos e pensamentos. É um processo que respeita os silêncios e os espaços de fala estimulando uma ação responsável, consciente e livre. Está fundado na presença e na abertura para ouvir o que o outro está propondo sem nenhum tipo de interrupções (hooks, 2020; hooks, 2021). Então inspiradas nesses autores, e, principalmente, na bell hooks que fala sobre a importância do amor para aprendizado e de criar um espaço seguro para o diálogo entre pares, decidimos que a sentipensação projetual seria uma proposta metodológica de ensino de design, o que se tornava fundamental em meio a pandemia. Para nós, sentipensar é um modo de resistência para não deixar o que é externo a nós, domesticar a nossa expressão criativa. É ter a coragem de sentir o pensamento, de pensar e agir com o coração. É perceber o que afeta nosso modo de estar no mundo pelo corpo e por meio deste sentimento, refletir sobre a ação. Neste processo, o autoconhecimento, a relação entre corpos, a compreensão da interdependência e do tempo cíclico foram a chave da educação em design.

3. Movimento 3: Ensinando e praticando sentipensação projetual

Como ensinar e explicar a sentipensação projetual na sala de aula? Tivemos um semestre de atividades acadêmicas em formato síncrono, mediado por plataformas digitais para trabalhar a atividade ‘Cultura de Projeto’. O ponto de partida foi o trabalho da bell hooks, que propõe o diálogo amoroso como uma chave para uma educação para o pensamento crítico. O amor passa a ser a ontologia que guia as práticas colaborativas de projeto. A autora nos ensina que “O amor só pode acontecer se nos desapegarmos da obsessão de poder e domínio” (hooks, 2021; p.15). E que cuidado, apoio, confiança, reconhecimento, compromisso, honestidade e comunicação aberta são necessários para que o amor

verdadeiro aflore. Assim, o diálogo amoroso pressupõe uma conversa genuína, onde haja compartilhamento de poder e de conhecimento. Diferentemente de outras práticas pedagógicas na qual o professor chega com um plano de ensino pronto para ser executado com a turma de alunos, a atividade de sentipensação projetual proposta foi o projeto para o plano de ensino da atividade 'Cultura de Projeto' do curso 'Bacharelado Interdisciplinar de Artes, Humanidades e Tecnologia' da Universidade do Vale do Rio dos Sinos (UNISINOS), buscando quebrar as hierarquias de poder e domínio existentes em algumas relações educacionais. A atividade foi ministrada por uma de nós, Karine. Acreditando que todos tem saberes a serem compartilhados, a professora trouxe para a turma as competências que precisavam ser desenvolvidas e proposta de vivências projetuais, que serão apresentadas na sequência do artigo. E os estudantes, precisavam compartilhar suas referências projetuais, escolhendo temas para serem dialogados em cada aula se sentipensação projetual. O plano de aula foi projetado considerando o seguinte formato: oito encontros de vivências projetuais, dois encontros de sentipensação (conversação sentipensante), e nove encontros de projeção sentipensante, num total de 19 encontros em 19 semanas. Os alunos e a professora decidiram junto também que a cada encontro ia ter um conjunto de estímulos que serviria de base para conversação sentipensante: um texto, um Podcast, um audiovisual e uma entrevista. Os encontros de sentipensação foram espaços de reflexão metaprojetual (Bentz & Franzato, 2017) sobre todos os conteúdos explorados nas vivências anteriores. É neste contexto que foram exploradas as possibilidades do diálogo amoroso e de escuta atenta entre professor e alunos. Iniciando com a conexão com o próprio corpo e as vivências, os alunos foram convidados a trazer os seus aprendizados do ano de 2020 para o grupo, compartilhando leituras e audiovisuais significativos. Neste exercício, os alunos e a professora se apresentaram uns aos outros a partir das próprias vivências e aprendizados na pandemia.

No segundo dia de aula foram co-criados os encontros do semestre, não mais aulas, com referências da professora e dos alunos. Ou seja, o plano pedagógico foi acordado por esse conjunto de professora e alunos do modo mais horizontal possível. A professora era encarregada de sugerir um texto principal, enquanto os estudantes, a partir dessas referências, trouxeram e compartilharam com os colegas outras referências significativas para o encontro de acordo com os objetivos estabelecidos.

As vivências projetuais foram pensadas como modo de acompanhar os processos de projetistas que identificamos como sentipensantes. Para estimular a sentipensação ao longo processo projetual, foi usado como recurso pedagógico a análise da cultura de projeto do artista múltiplo Emicida por meio do documentário 'Amar.Elo' e dos podcasts 'Amar.Elo Prisma' e 'Amar.Elo – o filme Invisível' - resultados de projeto. Por meio do primeiro podcast, em quatro movimentos, tivemos uma reflexão metaprojetual sobre a projeção do documentário 'Amar.Elo'. Emicida une saberes ancestrais não ocidentais das artes, filosofia, história (negra, védica, budista, islâmica, mangá) para criar a narrativa do seu sistema-produto. A música é o ponto de partida da narrativa, que se desdobra em múltiplos formatos. Todas as escolhas projetuais trazem uma valorização do saber produzido por pessoas negras nos diferentes campos do saber. Por meio do segundo, pudemos entender as referências e sentimentos do projetista e sua equipe mobilizados para a construção do projeto experimental 'Amar.Elo'. Este último resultou no podcast, no documentário, em um disco, em vestimentas e em um projeto de comunicação multiplataformas. A partir dessas vivências, os alunos puderam se inspirar no percurso do Emicida, como um projetista sentipensante. Emicida foi escolhido como um projetista sentipensante pois nos materiais analisados ele revela:

Quando você tem um ambiente de paz, consegue alcançar a serenidade e observar a realidade com maior clareza e capacidade de reflexão", explicou o artista. Daí, é possível se conectar com a sua própria paixão, se colocar no lugar do outro e, assim, mudar a

realidade [...] clareza na ideia, pureza no coração sentimento como guia e honestidade como religião.

Ele é um artista que nos fez sentipensar a partir do ponto de vista de pensadores negros.

Percebemos que no projeto que vivenciamos juntos em aula, Emicida (co)raciocina (pensa com o coração). Portanto, nas aulas, convidamos os estudantes a fazerem o mesmo a partir da vivência de quatro movimentos propostos pelo projetista no 'Amar.Elo prisma': paz, clareza, coragem e compaixão. Estes movimentos são inspirados nos valores do monge Thich Han Tan. A paz está relacionada ao cuidado com o corpo e a conexão com o ambiente. Cuidar da gente para cuidar do mundo: corpo, mente e energia que nos conecta. A clareza da ideia está relacionada a saúde mental, ao acolhimento e cuidado. Cuidar da mente para lidar com os estresses do dia a dia, e ser produtivo para si e para a sociedade. A compaixão está relacionada e traz o senso de comunidade e pertencimento. A coragem está relacionada a transformação pessoal que pode depois se tornar transformação do mundo. Nos quatro movimentos propostos, Emicida mostra um caminho projetual para incentivar as pessoas a transformarem suas realidades nas periferias da cidade.

Os estudantes ao ouvirem os podcasts como reflexões metaprojetuais e assistirem o documentário como resultado de projeto, puderam sentipensar um percurso projetual criativo original. Nos momentos de sentipensação, por meio de diálogos amorosos, trocamos reflexões sobre as referências e o processo projetual. Aqui, o desafio foi o de transpor o formato de conversa aberta e livre da sala de aula física para as plataformas digitais. Pedimos que os estudantes deixassem suas câmeras abertas, e observassem os gestos e os silêncios para inserirem-se no diálogo. Percebemos que foi difícil no começo, nem todos podiam abrir suas câmeras. Usamos os dispositivos de organização de fala por inscrição, e exercitamos modos mais livres de exposição das ideias. Um dos alunos sentiu o espaço acolhedor e cuidadoso e teve a coragem de expor para o grupo que era portador da Síndrome de Asperger. Da sua partilha, outra colega compartilhou que tem um cunhado com essa Síndrome e aponta uma série de questões que precisam ser pensadas para que a comunicação com ele ocorra. Ao compartilharem seus sentimentos e pensamentos em um diálogo amoroso, surgiu o tema de projeto do grupo para trabalhar com comunicação inclusiva em vídeos e memes para pessoas com essa síndrome. Como diz o Emicida: "quem troca uma ideia, sai com duas".

As vivências projetuais também contemplaram diálogos amorosos com projetistas convidados a partilharem a sua experiência com os estudantes, ligadas aos temas da espiritualidade, gastronomia, arte e moda. Esta foi uma escolha chave enquanto era importante dar aos estudantes outros tipos de referência para que eles, desacostumado ao processo de sentipensação, pudessem entender percursos e seres sentipensantes. A cada encontro, após a participação do convidado, um estudante designado apresentava a sua referência para o restante do grupo. A diversidade de repertórios foi importante para nutrir o conhecimento do grupo e desenvolver a coragem de realizar as suas escolhas metodológicas. Não foi apresentado um processo de design para ser exercitado em aula. Foram vivenciados e sentipensados diferentes percursos projetuais, de modo que os estudantes pudessem escolher os seus movimentos. Esta não foi uma abertura simples, houve resistência. Pediram por métodos com o passo a passo necessário para responder ao desafio. Por meio das sentipensações, mostramos outros métodos e mais uma vez apontamos necessidade de autonomia e coragem para escolher os próprios caminhos. Desta forma, foram promovidos vínculos projetuais entre os diferentes sujeitos e elaboradas propostas projetuais vinculadas aos princípios da autonomia, inclusão e sustentabilidade. Nesse processo, o autoconhecimento, a relação entre corpos, a compreensão da interdependência e do tempo cíclico foram centrais para o processo de aprendizagem.

Assim, chamamos de sentipensação projetual um modo de design guiado pelo diálogo amoroso e pelos conceitos de paz, clareza, compaixão e coragem. Neste modo de design, a arte encontrou grande

relevância enquanto forma de libertação e cura das opressões. Ou seja, o conceito de sentipensação foi implementado desta forma: a sala de aula se tornou um espaço onde aos alunos era pedida escuta atenta e diálogo amoroso em primeiro lugar consigo mesmo, e depois com os outros que estavam no mesmo processo de projeto com eles. Ainda, o tema de projeto foi o design para comunidades autônomas, estimulando a leitura da realidade a partir dos oprimidos.

4. Movimento 4: Aprendizagens

A partir da observação do diário de bordo que cada aluno redigiu ao longo do processo e da observação dos projetos que desenvolveram, tentamos aprender o que este processo trouxe para os estudantes e para compreensão deles da prática de design. Os estudantes declararam que a proposta foi desafiadora, porque leva tempo para reaprender a sentir e expressar o sentimento, pois requer coragem. Adicionaram que se surpreenderam com o processo e que a atividade foi muito tocante, humana, que permitiu que eles evoluíssem como seres humanos.

Emergiu a dificuldade que os alunos têm de olhar para si mesmos. A formação escolar técnica que receberam anteriormente não os estimulou a olhar para si, perceber seus sentimentos, nomeá-los e colocá-los nos seus projetos. Neste sentido, ao observar os projetos que desenvolveram, percebemos que na maioria dos casos os seus sentimentos foram excluídos do ato de projetar, voltando sempre para uma solução mais técnica. A desconexão consigo mesmos fez com que eles, em muitos momentos, sentiram a necessidade de ter uma direção, ou seja do passo a passo providenciado pelo modelo tradicional de resolução de problemas, ao qual eles estão acostumados. Para eles foi difícil escutar si mesmos e construir os próprios caminhos a partir da sentipensação projetual, mas perceberam que é uma mudança necessária e que requer tempo. O conceito e a prática de sentipensação projetual se apresenta como um primeiro momento no processo de pensar e repensar a colaboração em processo de design. Ela nos mostra a relevância dos designers (re)aprenderem a se escutar e a partir disso se colocar em diálogo e conexão com o mundo. Fazer isso permite, portanto, de estabelecer outras bases para processos de design colaborativos. Processos onde os sentimentos estão presentes e não tem técnica e tecnologia que não surgia deles.

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Comunidades Autônomas: Construção de cenários para populações em vulnerabilidade no Covid-19

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Este trabalho é um esforço coletivo para tentar alavancar a autonomia das comunidades mais afetadas pela pandemia do Covid-19 e despertar novas reflexões sobre a oportunidade de construir futuros alternativos. Para isso, utilizamos o método de Cenários Orientados pelo Design, um exercício de suporte ao desenvolvimento de estratégias por meio da criação de visões compartilhadas e de comunicação de outros futuros possíveis. Por meio desse método, é possível navegar pelo processo de projeto, fomentando o diálogo e negociação entre diversos atores. Contamos com a colaboração de especialistas e cidadãos, em rodadas de contato síncrono e assíncrono, perseguindo o objetivo de um cenário construído por múltiplos olhares. Ao final, apresentamos um cenário capaz de conectar diferentes atores e servir como plataforma para a criação de estratégias pelas comunidades, como um ambiente aberto ao diálogo e à colaboração, denominado Comunidades Autônomas, desdobrado em três visualidades: uma narrativa em texto, um vídeo protótipo e um mapa de atores. Organizações de todos os tipos que compartilham a visão de futuro apresentada podem se utilizar desse material, para gerar discussões em grupos e elaborar estratégias, que podem levar à evolução do cenário proposto e à elaboração de novos cenários, mantendo o processo vivo e aberto.

Autonomia; Cenários Orientados pelo Design; Design Estratégico;

No final do ano de 2019 e início de 2020, o mundo se encontrou imerso na pandemia do Covid-19. O novo coronavírus transformou a rotina de todos os segmentos e classes sociais, afetando a todos com diferentes pesos e formas, com maior impacto nas populações consideradas mais vulneráveis econômica e socialmente (MATTA *et al.*, 2021). O medo do contágio e as medidas públicas de segurança resultaram em restrição na circulação, afetando diretamente trabalhadores e pessoas em situação de rua. Outros, mesmo com imóvel para morar, encontraram perda de suas ocupações. Dessa forma, o Covid-19 ofereceu o pretexto ideal para que os marginalizados se tornassem ainda mais inviabilizados pelo sistema, acentuando um modo de vida precário e desumano. "De acordo com estudos da ONU, de 119 a 124 milhões de pessoas foram empurradas para situação de pobreza em 2020, cerca de 255 milhões de empregos foram perdidos. O número de pessoas afetadas pela fome aumentou de 83 para 132 milhões".¹

Diante da conjuntura relatada, a cidade de Porto Alegre, que há anos vinha assistindo o aumento da população em situação de rua² e a precarização dos serviços públicos, viu a parca distribuição de renda se restringir ainda mais. Pessoas com e sem casa, nas ruas ou em comunidades, viram diminuir seu acesso à comida, à higiene básica e à educação, assim como aumentar a violência doméstica e a infraestrutura social básica. Ao mesmo tempo, formas de solidariedade e cooperação global começaram a se mostrar mais presentes, desenvolvendo verdadeiros mapas solidários ao longo do mundo, refletindo-se, pelo contato das redes virtuais, ao longo da cidade de Porto Alegre.³

É nesse contexto que surge a demanda do seguinte trabalho, que se inicia como um socorro urgente às populações consideradas "invisíveis"⁴. No entanto, propõe-se ir além. O projeto é um esforço coletivo de tentar ressignificar ou alavancar um modo emancipação de comunidades mais afetadas pelo momento que estamos vivendo, porém, que veem nele uma intensificação. Aqui, vê-se tal momento como uma oportunidade de uma transformação profunda, sistêmica.

As restrições impostas também apresentaram uma oportunidade de ampliar as metodologias do design e mostrar a sua capacidade de se adaptar a modos de comunicação indiretos e assíncronos. Nesse caso, ocorreu a colaboração entre especialistas e cidadãos, fazendo necessário exercer um projeto de cunho experimental. Mas, especialmente, demandou uma capacidade de imaginação e de criatividade para superar as adversidades impostas pelo momento de crise.

As necessidades das populações mais vulneráveis na pandemia do Covid-19 despertou novas reflexões sobre a oportunidade de construir futuros alternativos. A conexão entre diferentes atores, reunidos para resolver problemas emergenciais, levou à reflexão do direcionamento do processo para uma

¹ <https://www.google.com/url?q=http://www.ihu.unisinos.br/78-noticias/609854-alarme-da-onu-o-covid-reduziu-100-milhoes-de-trabalhadores-a-pobreza&sa=D&source=editors&ust=1632236907547000&usg=AOvVaw102O1Hvrx4ienjVYjRRV3>

² https://www.google.com/url?q=https://gauchazh.clicrbs.com.br/porto-alegre/noticia/2021/03/numero-de-pessoas-em-situacao-de-rua-em-porto-alegre-aumentou-3873-em-2020-ckluyq6b5004g0198z9tq0xzj.html&sa=D&source=editors&ust=1632236907550000&usg=AOvVaw2SKhNH8Th_5P5uTt9-w5lv

³ https://www.google.com/url?q=https://gauchazh.clicrbs.com.br/coronavirus-servico/noticia/2020/04/o-virus-da-solidariedade-boas-acoas-no-combate-a-pandemia-em-porto-alegre-ck91yy2ne00i0014q7vcvsh57.html&sa=D&source=editors&ust=1632236907520000&usg=AOvVaw1fygrPUIH6P8V5Nh__HVC-

⁴ "pessoas em situação de rua [...] a população que enfrenta uma realidade ainda mais complicada e não tem acesso aos serviços básicos" <https://www.fiocruzbrasil.org.br/um-olhar-sobre-os-invisiveis/>

perspectiva de transformação sistêmica, encontrando no momento a oportunidade para exercitar a imaginação e a criatividade sobre outros futuros possíveis.

O projeto Comunidades Autônomas iniciou com o contato da prefeitura da cidade de Porto Alegre com o Programa de Pós-graduação de Design da UNISINOS no início do período da quarentena no Brasil, em março de 2020. A demanda por soluções emergenciais foi a força motriz para a formação imediata de grupos de projeto para atingir o objetivo principal do poder executivo municipal: compreender quem eram e onde estavam localizados os cidadãos considerados "invisíveis", cujo acesso era dificultado pela falta de cadastro junto aos órgãos públicos. Dessa forma, buscava-se tornar possível o fornecimento de renda básica emergencial e a facilitação do acesso a cestas básicas. Em virtude da conjuntura, que não permitia encontros presenciais, reuniões virtuais e interações síncronas e assíncronas conectaram os projetistas na busca por criar *personas* (STICKDORN *et al.*, 2020), por meio de conversas e pesquisas à distância, de forma a tornar visual as características dos indivíduos. Por meio de processo semelhante, telefonemas e netnografia, realizou-se o mapeamento de iniciativas que, naquele momento, já estavam trabalhando no atendimento a essas populações.

As expectativas delineadas no *briefing* da prefeitura, no entanto, foram redirecionadas ao longo dos primeiros passos. O contato com a complexidade dos problemas apresentados ao longo do processo resultou em novos questionamentos, sobretudo relacionados à necessidade de transformação estrutural, tornando obsoletas soluções emergenciais no caso de novas crises semelhantes. Sendo assim, a pesquisa realizada como ação emergencial prolongou-se para a criação de um cenário orientado pela metodologia do design estratégico. Os cenários são um exercício de suporte ao desenvolvimento de estratégias por meio da criação de visões compartilhadas, de visualização e comunicação de outros futuros possíveis (PPG DESIGN UNISINOS, 2014). O design estratégico possibilita isso, pois tem em seu cerne a articulação de saberes por meio da articulação de redes projetuais, elaborando estratégias em um processo que envolvam todo o ecossistema de atuação (MANZINI, 2008).

O processo foi permitido pela possibilidade de experimentação das ferramentas virtuais, buscando-se em diferentes rodadas o contato com os atores do ecossistema trabalhado, de forma a ser perseguido o objetivo de um cenário construído por múltiplos olhares. Ao final, apresenta-se um cenário capaz de conectar diferentes atores e servir como plataforma para a criação de estratégias por eles, como um ambiente aberto ao diálogo e à colaboração. As visualidades originadas - uma narrativa em texto, um vídeo e um mapa de atores - constroem pontes para um futuro denominado Comunidades Autônomas, em que se dissolvem conceitos como invisibilidade e periferia, fazendo emergir processos de transformação por e para as pessoas.

2. Chamada Emergencial

O projeto Comunidades Autônomas iniciou com o contato da prefeitura de Porto Alegre com o Programa de Pós-graduação de Design da UNISINOS no início do período da quarentena no Brasil, em março de 2020. Os primeiros passos do projeto emergiram da demanda de elaboração de um plano de proteção social para a população mais atingida pelos impactos decorrentes dos cuidados de distanciamento social, como moradores de rua e comunidades carentes. O *briefing* conduziu o grupo a traçar objetivos para ajudar a população a:

1. Acessar os auxílios do governo federal
2. Garantir segurança alimentar
3. Proporcionar espaços e insumos para seu acolhimento

Diante da necessidade de soluções de curto prazo, iniciou-se a formação de grupos de projeto por meio de processo virtual, formado por integrantes do PPG e convidados. Para atingir os objetivos, o grupo identificou a necessidade de traçar o perfil das populações vulneráveis, recorrendo-se à ferramenta de criação de *personas* (STICKDORN *et al.*, 2020) a partir de entrevistas semi estruturadas.

O olhar sistêmico do problema, perspectiva abordada pelo design estratégico, disciplina à qual se volta o PPG Design da UNISINOS, nos permite entender que o design transcende a oferta de produtos ou serviços singulares, "[...] e considera como um todo sistêmico os valores dos grupos sociais, as estruturas das organizações, as diferenças dos contextos socioculturais, o potencial das tecnologias e das redes, os efeitos de sentido desejados e a comunicação de processos e de resultados" (FRANZATO *et al.*, 2021, p. 101). Assim, ampliamos a pesquisa também para a coleta de casos projetuais. A compreensão do ecossistema, seus atores e interações existentes, teve por intuito investigar como e em quais regiões atuavam as iniciativas já presentes na cidade, criadas ou adaptadas para atender as demandas das populações pesquisadas no período da quarentena.

2.1. *Personas*

"Uma *persona* é um perfil que representa um grupo específico de pessoas" (STICKDORN *et al.*, 2020, p. 41). Esta ferramenta de design é uma forma de representação das pessoas com necessidades semelhantes às quais o projeto se direciona, "[...] não é um estereótipo, mas é um arquétipo baseado em uma pesquisa real." (Ibid, 2020, p. 41). A partir da análise e síntese de características comuns entre elas, como comportamentos, necessidades e estilos de vida, se desenvolvem perfis que descrevem formas possíveis de generalização, buscando respeitar ao máximo as idiossincrasias.

O objetivo com a ferramenta foi identificar um recorte da diversidade da população vulnerável de Porto Alegre e, dessa forma, buscou-se aproximar, entre limitações, à realidade dos indivíduos, permitindo processos e percursos mais coerentes. O desenvolvimento de *personas* exige conhecimento aprofundado dos indivíduos, o que Tonetto (2016, p. 122) define como uma pesquisa de inspiração etnográfica que traz como essência "[...] a ideia de que o pesquisador deve fazer ele mesmo o trabalho de campo", por meio da observação direta da realidade. Uma pesquisa etnográfica permite compreender significados, entender normas culturais, potencializa o poder da comunicação e permite criar com foco no comportamento real observado (diagnóstico de aspectos comportamentais) (Ibid, 2016). No entanto, devido à situação de isolamento dos(as) pesquisadores(as), a pesquisa de campo foi impossibilitada. Optou-se pelo mapeamento de lideranças e representantes de grupos considerados "invisíveis" pelas vozes hegemônicas, a fim de realizar entrevistas semiestruturadas via telefone e chamadas de vídeo. Compreendemos que essas pessoas teriam a vivência e a experiência empírica para nos informar sobre a realidade do contexto pesquisado.

Foram realizadas 15 entrevistas no período de uma semana, a partir do desenho de uma árvore base de perfis, como segue:

1. Ações | Pessoas | Instituições governamentais ou "reconhecidas" pelo governo
 - a. Agentes e profissionais da prefeitura.
 - b. Agentes e profissionais de instituições de referência nas comunidades (UPAs, UBS, Instituições religiosas, escolas, centros comunitários, entre outros).
 - c. Agentes, ações voluntárias formais ou líderes de movimentos sociais reconhecidos pelo governo (movimentos sociais, outros).
2. Ações | Pessoas | Instituições não-governamentais e/ou não oficialmente rastreadas

- Agentes de ações voluntárias informais (pessoas ou pequenos negócios que mobilizam suas redes para levantar doações (alimentos, agasalhos, higiene, outros) a pessoas e famílias necessitadas).
- Líderes comunitários (pessoas referência nas comunidades ou grupos).
- Pessoas da comunidade (pobreza/ vulnerabilidade).

As entrevistas foram decupadas e sintetizadas em categorias, tendo as frases como elementos mínimos. A partir das evidências encontradas nas frases, foi possível identificar e descrever cinco *personas*. Para cada *persona* foi realizado um perfil geral [Figura 1] com informações de idade, renda e ocupação; minibiografia; um mapa da empatia expressando aquilo que a *persona* pensa, faz, vê e ouve; suas principais necessidades básicas; seus pontos de contato; e suas principais dores. A partir das sínteses, foi proposto um nível de vulnerabilidade para cada *persona*.



Figura 1: exemplo do quadro de apresentação dos perfis das personas. Fonte: autores, 2021

2.2. Coleta de casos projetuais

De forma concomitante ao processo de desenvolvimento das personas, foi realizada uma coleta de casos projetuais por meio de uma netnografia. O intuito foi compreender como e em quais regiões atuavam as iniciativas já existentes na cidade, criadas ou adaptadas para atender as demandas urgentes do período da quarentena.

Para a coleta de informações foram pesquisadas iniciativas a partir de redes sociais, redes de contato, repositórios de iniciativas como o do movimento Segura a Onda e materiais recebidos diretamente da prefeitura. Ainda, foi desenvolvido um formulário online para a contribuição externa, divulgado nas redes pessoais das pesquisadoras e pesquisadores. Para o registro e visualização dos casos encontrados, foi utilizada como ferramenta de mapeamento o Google Maps [Figura 2]. Diferente de um mapa de

stakeholders, ou mapa de ecossistema, que ajuda a visualização de todos os atores (inclusive interações) de uma determinada experiência a partir de um ponto de partida que assume a perspectiva central do mapa (STICKDORN *et al.*, 2020); Esta ferramenta de visualidade nos possibilitou a criação de diferentes camadas, em que não somente inserimos as iniciativas, mas também as categorizamos por semelhança no que ofertavam, utilizando iconografia para comunicação das categorias. A visualização das iniciativas no mapa permitiu compreender a abrangência das regiões da cidade atendidas.

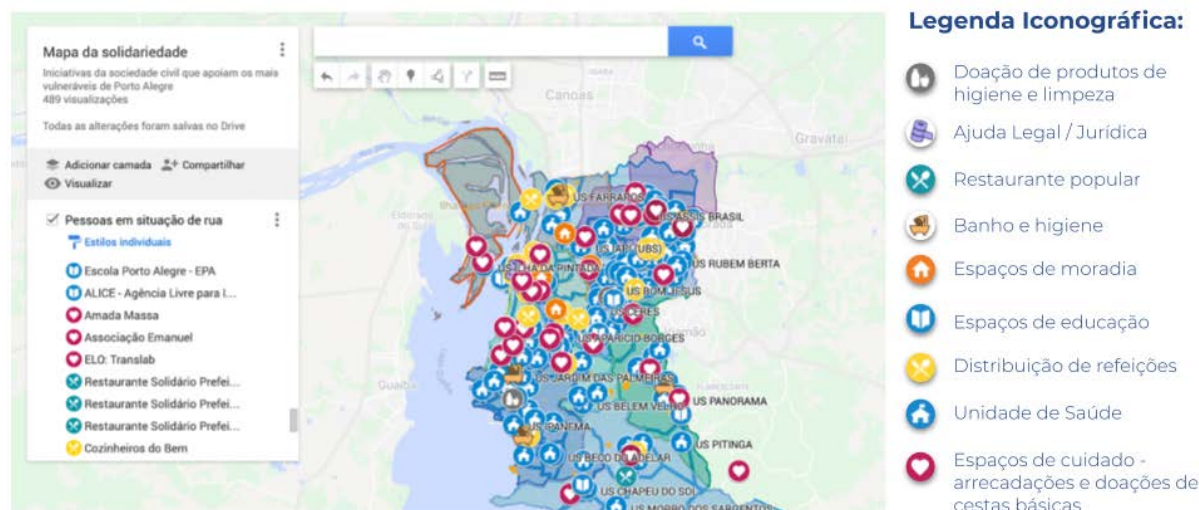


Figura 2: mapa de casos projetuais. Fonte: autores, 2021.

Compreendidas as necessidades das principais *personas* que representam os “invisíveis” da cidade e os atores possíveis de mediação, a entrega intermediária do projeto para a prefeitura compilou o conteúdo anterior e tomou forma em um mapa de serviço [Figura 3] que intitulamos “mapa de oportunidades”. “Ao visualizar os principais componentes de um sistema, é possível analisar e projetar as interações entre eles. [...], ajudando-nos a compreender o impacto de decisões [...]” (STICKDORN *et al.*, 2020, p. 58).

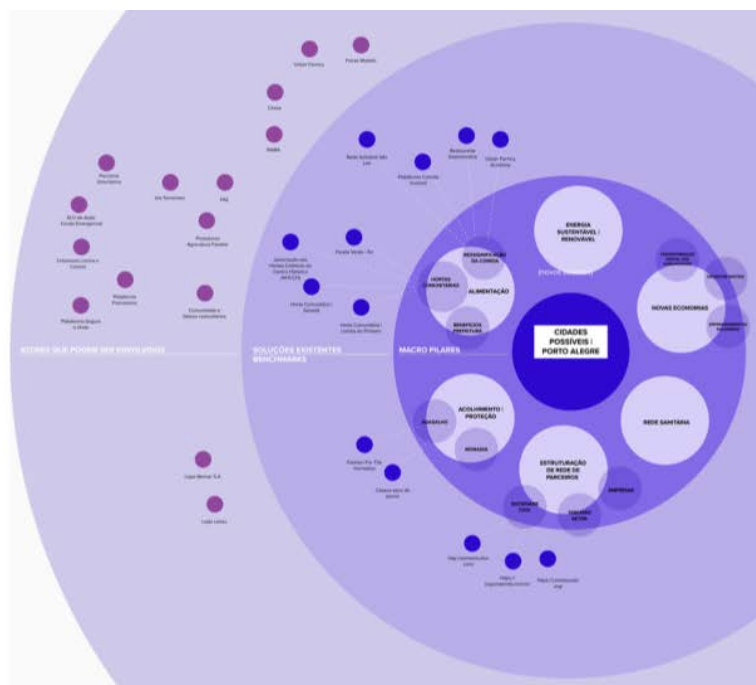


Figura 3: mapa de oportunidades. Fonte: autores, 2021.

O mapa descreve, em camadas, as jornadas dos usuários e atores envolvidos, a fim de serem entregues os auxílios emergenciais e cestas básicas. Também foram assinaladas estruturas físicas necessárias e os desafios de cada camada. Este relatório teve impacto imediato nas ações da prefeitura, gerando cadastros e entregas de mantimentos.

Ainda de acordo com Stickdorn *et al.* (2020), torna-se mais fácil, a partir desse modo de visualização, entender sistemas complexos, sendo útil para o design de problemas capciosos, ou *wicked problems* (BUCHANAN, 1992). Dessa forma, o olhar para os atores e as interações do ecossistema encontrou o desenho de problemas mais complexos na cidade. Ainda que com muitas iniciativas existentes, de organizações públicas e privadas, foram identificados problemas estruturais. Os problemas mais profundos das populações não eram atendidos pelas iniciativas encontradas, focadas sobretudo em ações assistencialistas emergenciais, e não na emancipação e autonomia das populações. Muitas delas encontravam-se desconectadas e sem recursos materiais e pessoas suficientes.

Diante desse encontro com a complexidade do problema e de suas questões estruturais, ao longo do processo foi-se identificando a importância de recorrer à metodologia do design estratégico, ampliando-se, dessa forma, o projeto para uma perspectiva de transformação sistêmica. Sobre o conceito de pensamento sistêmico, Capra e Luisi (2014, p. 14, tradução nossa) comentam - em termos de conexão, relacionamentos e contexto - a visão sistêmica como aquela onde “[...] um organismo, ou sistema vivo, é um todo integrado cujas propriedades essenciais não podem ser reduzidas às de suas partes. Eles surgem das interações e relacionamentos entre as partes”. Isso é, partindo de uma consciência ecológica profunda “[...] reconhece a interdependência fundamental de todos os fenômenos [...]” (Ibid, p. 17), onde as implicações não são apenas para a ciência e a filosofia, mas também para a política, negócios, saúde, educação e muitas outras áreas da vida cotidiana.

Compreendemos que uma transição para a metodologia do design estratégico poderia proporcionar um olhar mais abrangente, conectando o ecossistema, gerando visões de futuro e criando ações mais potentes. Após entrega dos resultados desta primeira etapa para a prefeitura, o grupo envolvido optou pelo seguimento do processo, de forma a construir alternativas de longo prazo e de inovação para um futuro em que se tornem obsoletas soluções emergenciais para tais populações. Dessa forma, a pesquisa realizada como ação emergencial para atender a demanda da prefeitura resultou por configurar-se insumo para a metodologia a ser utilizada na etapa seguinte.

3. Design Estratégico e construção de cenários

O design estratégico é a metodologia utilizada pelo PPG Design da UNISINOS. Voltado à investigação dos processos e práticas para a inovação social e cultural, o grupo compreende o design estratégico como uma abordagem capaz de articular saberes para a construção de visões compartilhadas de futuro. Dessa forma, o designer estratégico visualiza na projeção por cenários a possibilidade de operar como plataforma transdisciplinar das redes projetuais, elaborando estratégias em um processo que envolve todo o ecossistema de atuação (PPG DESIGN UNISINOS, 2014).

A estratégia é, portanto, resultado de uma construção coletiva, ocorrida na relação com atores e ambientes (ZURLO, 2010). Para Morin (2005), a estratégia permite a modificação no curso da ação, respeitando e se utilizando dos acasos, encontrando terreno fértil no campo da linguagem e do significado. É a partir dessa construção que o design estratégico se constitui como uma metodologia que se propõe a olhar para os aspectos relacionais do sistema. O resultado é um processo que se constitui como percurso para elaborar, exercitar e fazer evoluir as estratégias, o que permite ao design "[...] considerar o regular e evidente, o possível, mas também o imprevisível, o acaso, a deriva ou o erro (PPG DESIGN UNISINOS, 2014, p.2).

Os cenários representam a tangibilização das visões compartilhadas de futuro. Além de capturar sinais do que está por vir, permitem imaginar futuros possíveis. A organização *Strategic Design Scenarios* descreve cenários como um exercício criativo, que explora possibilidades para além do que é possível ou desejável, mas considera que "a maior parte do que será o futuro não está escrito em algum lugar e precisa ser inventado" (STS, s/d, tradução nossa). Levamos em conta aqui, portanto, que o projetar por cenário é envolver também o imaginado, ainda que, conforme Manzini (2017) uma visão de mundo diferente da atual também pode ser, em alguma medida, possível de realização. Trata-se de um método para visualização de visões compartilhadas de futuro, a partir do qual é possível navegar pelo processo de projeto, fomentando o diálogo e negociação (HARTMANN, FRANZATO, 2012; MANZINI, JÉGOU, 2003). Os cenários aqui propostos buscam dar sustentação aos processos colaborativos do design estratégico, configurando-se como "um artefato comunicativo" (MANZINI, 2017).

Na posse de uma pesquisa contextual, "[...] conhecimento do ambiente em que o problema está inserido" (BITTENCOURT; DA COSTA, 2016, p. 23), realizada em virtude da demanda emergencial, seguiram-se cocriações para a construção cenários com um grupo multidisciplinar, explorando aquilo que foge do contexto, para o âmbito da imaginação. Os processos foram guiados por questionamentos para o desenvolvimento de reflexões e ideias a respeito de futuros que pudessem contemplar múltiplos olhares.

Para isso, foram utilizadas ferramentas em nuvem, permitindo o acesso simultâneo e múltiplo. Optou-se pelo uso do Google Desenho (Draw), ambiente virtual que permite a inserção de textos e imagens de forma colaborativa; o Trello, ferramenta de gestão de projetos para o acompanhamento das etapas; o Google Apresentações, para a criação colaborativa da visualização dos resultados. Além destas, o Whatsapp foi a principal ferramenta de colaboração com atores externos ao grupo, também essenciais

na criação dos cenários. O processo encontrou limitações espaciais e temporais, devido à pandemia. Portanto, parte do tempo dedicado pelos participantes foi em momentos assíncronos, sendo realizadas também três reuniões síncronas de alinhamento das reflexões e ideias expressas nas ferramentas:

A primeira reunião buscou compreender os valores e motivações dos projetistas, de forma a promover o compartilhamento de visões de mundo comuns. Reconhecidas suas motivações e valores comuns, a segunda reunião buscou sintetizar as reflexões das etapas anteriores e, a partir delas, estimular a imaginação e a criatividade para a criação de novos futuros. Foram colocadas algumas questões norteadoras para compreender a visão dos projetistas em relação à temática.

- O que os "invisíveis" vão precisar neste cenário?
- Quais produtos e serviços serão criados para atendê-los?
- Como será o consumo?
- Como os "não-invisíveis" e os "invisíveis" vão se relacionar?
- Quais os meios tecnológicos utilizados?
- Qual será o papel das entidades nesse cenário (prefeitura, universidade etc.)?
- Quem serão os atores envolvidos?
- Como será a cidade neste cenário?
- Como será alimentação, segurança, saúde, acesso a recursos, informação?

De forma assíncrona, foram construídos gráficos de polaridades [Figura 4] ou seja, conceitos centrais levantados durante as discussões e que, tensionados, levam à visualização de diferentes possibilidades de futuro. Dessa forma, foi sugerido ao grupo que realizasse de forma assíncrona aproximações entre os tópicos, como em clusters ou nuvem semânticas. Essas nuvens foram tomando a forma de polaridades a partir de um entendimento do grau de autonomia, participação e hierarquia das instâncias envolvidas. As polaridades, que inicialmente funcionaram como uma organização do material, em relação ao desenvolvimento de quatro cenários fechados em si, apresentaram-se limitantes, entendendo que um quadrante apenas não se definia como um cenário. Foi importante, nesse sentido, mais do que a discriminação dos quadrantes, entender os seus cruzamentos e os pontos de partidas de transformação ali elencados.

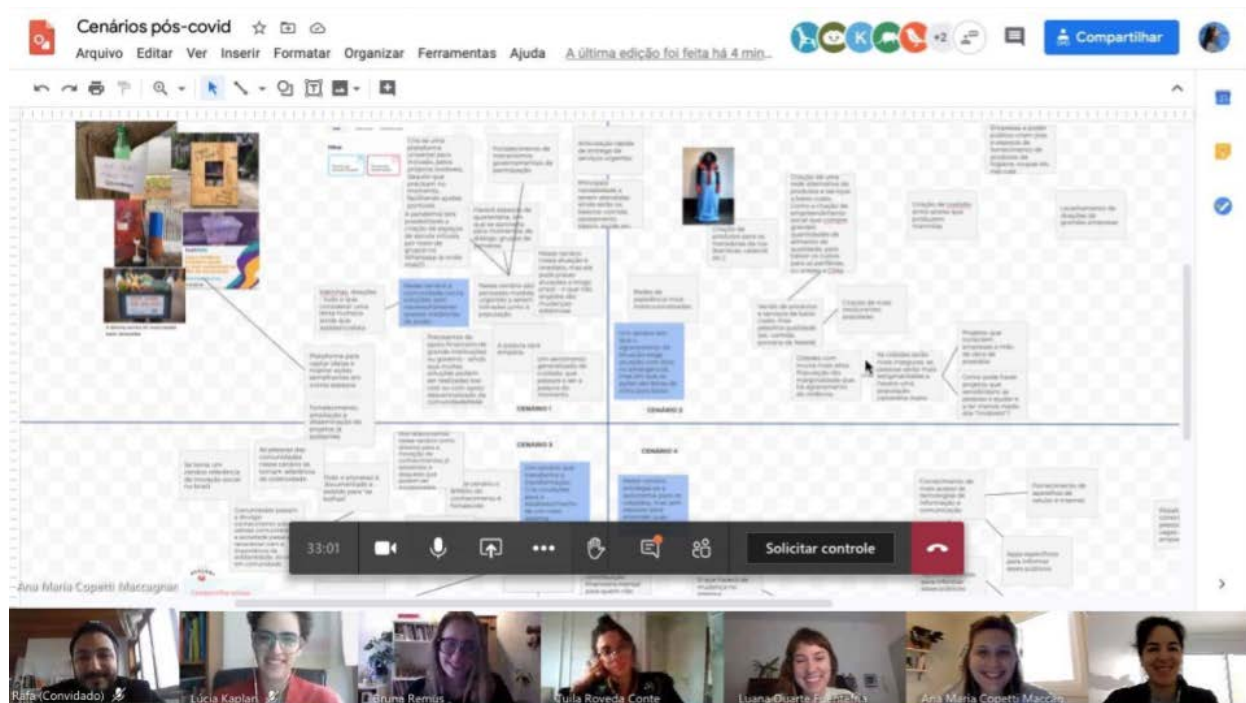


Figura 4: registro dos momentos síncronos de discussão das polaridades. Fonte: autores, 2021.

Portanto, entendendo que muitas questões dentro dos eixos se cruzavam ou mesmo operavam como níveis de evolução, tomou-se a liberdade de, na reunião seguinte, ser realizado um exercício de desconstrução dessas polaridades. Nesta terceira e última reunião, começou-se a desenhar as relações entre os pontos. Identificar etapas de evolução da questão problemática e os atores envolvidos possibilitou ver pontos de partida em um círculo evolutivo [Figura 5], constituindo-se, assim, mais liberdade de conexões do que quatro quadrantes independentes. Esses pontos de partida representaram o desenho inicial de possíveis ações.

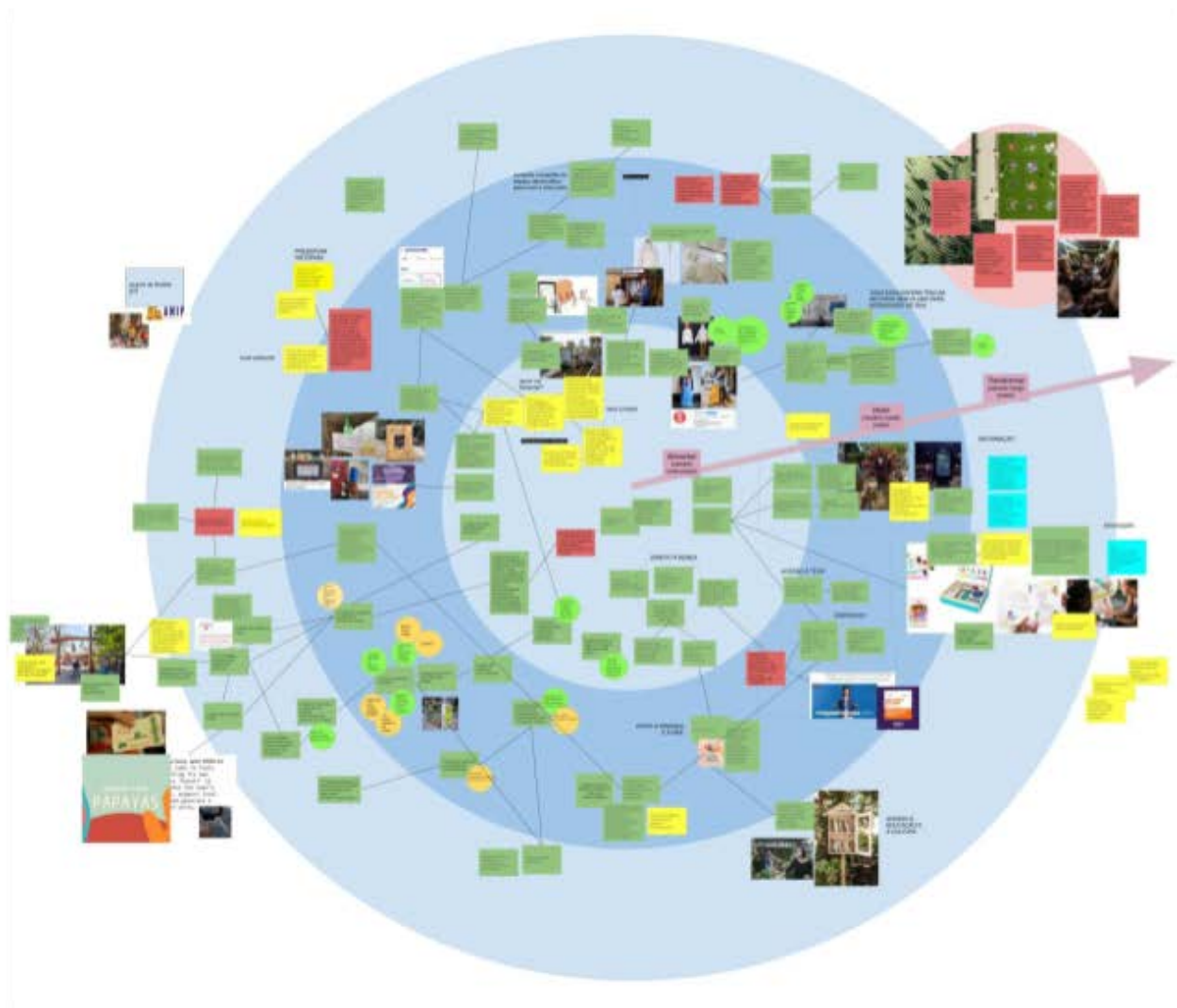


Figura 5 - círculo evolutivo formado a partir da discussão das polaridades. Fonte: autores, 2021.

4. O cenário Comunidades Autônomas

Partindo-se das contribuições em grande grupo, de forma síncrona e assíncrona, uma equipe reduzida realizou o fechamento do cenário, construindo sua narrativa, que foi denominada Comunidades Autônomas. O nome do cenário dá-se com base na visão de Escobar (2016), que compreende o design como uma prática de criação de mundos e propõe a busca por autonomia na prática projetual, para criar condições que permitam mudanças dentro das comunidades, pelas comunidades. Defendemos, assim como Escobar (2016), que as comunidades podem projetar novas formas de vida de forma autônoma. Autonomia entra, nesse projeto, como uma resposta à destruição comunal pelo modo de vida capitalista e como busca de outras formas de existência e resistência.

A visualidade do cenário apoia-se na contribuição de Zurlo (2010) para a necessidade de "fazer ver" do design. Conforme o autor, o "fazer ver" torna visível o campo do possível e é um instrumento potente de aceleração do processo de decisão. Para tanto, desenvolveu-se uma narrativa em texto acompanhada de cinco pontos de partida para ação, um vídeo protótipo que teve como objetivo tornar

a informação mais acessível e explorar a dimensão sensível do cenário, e um mapa de atores que torna possível que os atores se reconheçam no cenário.

Após um primeiro fechamento do cenário, a ser detalhado a seguir, foi possível realizar uma reabertura para a colaboração de novos atores, envolvidos ou parte das populações vulneráveis. Essa etapa se mostrou essencial, devido às limitações de tempo e espaço encontradas no processo, que abreviaram as contribuições, sobretudo na primeira etapa. Mesmo configurando-se ambiente aberto a criar diálogo e a se modificar constantemente, essa foi compreendida como uma etapa essencial para a sua divulgação a um grupo mais amplo de pessoas. Foram mapeados e contatados atores que vivenciam, de forma direta ou indireta, as realidades abordadas, para os quais foram enviados o vídeo e a apresentação do cenário inicial. Os retornos em áudios via Whastapp resultaram em ajustes, dando forma ao cenário aqui descrito.

4.1. Narrativa

O cenário propõe um futuro em que algumas fronteiras são dissolvidas e algumas metáforas são desnecessárias. O mundo não abandona as dicotomias que condenam à morte a maioria, promovendo uma construção de realidade a partir de olhares múltiplos. Propõe-se, assim, a transformar a própria forma de criar a realidade. Com acesso a todos os meios de subsistência, sobra tempo para imaginar, criar e resistir. As populações produzem a própria comida e criam novas formas de economia. Geram arte e representatividade. São criadoras de conhecimento e exemplo de comunidade e solidariedade.

Neste cenário, transiciona-se para o caminho da autonomia, com o apoio das instâncias públicas, universidades e da sociedade civil para a criação de infraestrutura básica e fortalecimento da produção, por meio de educação e de políticas públicas. Com boa infraestrutura de saneamento, transporte e educação, grande parte dos itens essenciais de consumo (como alimentos e roupas) são produzidos pelas comunidades, das comunidades para as comunidades, permitindo a autogeração dos próprios processos econômicos e políticos.

O resultado é uma produção de alta qualidade, com soluções justas e sustentáveis, desenvolvido nas comunidades a partir de um processo de consciência social e ambiental, em diálogo com universidades e organizações sociais. Dessa forma, vive-se em espaços que prosperam, transformando-os em núcleos conectados entre si. Cada comunidade dialoga com a outra, trocando conhecimento e produção, assim como, fortalecidas, passam a transbordar para além das suas fronteiras. Vê-se prosperar também as cidades, que veem diminuir índices de violência. Toda a cidade passa a se relacionar com as comunidades sem medo e de forma curiosa e generosa, encontrando nelas um importante repertório de conhecimento e de construção cultural. Não se utiliza mais o conceito de periferia ou invisibilidade. Todas as vidas são parte da cidade, todos os espaços são centros.

Diante do processo de imaginação de novos futuros e de possibilidades de ação, foram criados pontos de partida - grupos de reflexão e questionamentos - que levam a novas possibilidades de ação. As ações propostas buscam configurar e materializar novas realidades por meio de relações do sistema - algumas a serem criadas, outras a serem fortalecidas. Os pontos de partida a seguir estão em desenvolvimento, abertos à construção colaborativa. As ações propostas buscam configurar e materializar novas realidades por meio de relações do sistema - algumas a serem criadas, outras a serem fortalecidas. Os pontos de partida estão em desenvolvimento, abertos à construção colaborativa:

- Ponto de partida 1: Comunidades se tornam centros de produção de alimentos e criam uma rede de produção e consumo. Criar alternativas para a necessidade por alimento aprofundada pela crise. No lugar da venda de produtos a baixo custo, porém de péssima qualidade,

beneficiando a produção tradicional e industrializada, o momento é de oportunidade para criar alternativas que favoreçam a soberania alimentar. Trata-se de uma atuação que vai do acesso a melhores produtos a terrenos, aliado ao conhecimento e à terra.

- Ponto de partida 2: Comunidades viram espaço "modelo" de novas práticas e novas economias. Uma sociedade que compreende que quando não há difusão do conhecimento, o autoritarismo é potencializado, favorecer o seu acesso é o caminho da autonomia. Acessar conhecimento que descolonize o olhar e valorize o repertório das próprias comunidades faz emergir formas de viver e ver o mundo que são únicas e que, resgatadas, podem regenerar a autoconfiança, criar alternativas ao sistema e torná-las referência.
- Ponto de partida 3: O modelo econômico predominante é aquele que valoriza as iniciativas com foco no pequeno e no local. Uma profunda crise social e ambiental nos ensinou o valor de alimentar uma cadeia curta, que oferece mais cuidado e segurança a todos os envolvidos. Com o aumento do número de desempregados, para além da renda básica essencial para o sustento imediato, alternativas de apoio mútuo são uma solução para voltar a gerar renda e "fazer a roda girar". E se pudéssemos encontrar todas as nossas necessidades na produção feita no nosso bairro, facilitando nossa vida, criando conexão e promovendo o bem viver de todos?
- Ponto de partida 4: Cidadãos mais conscientes da lógica de produção e de seu papel na sustentabilidade social e ambiental. O maior acesso ao conhecimento, a autoconfiança gerada pelo pertencimento às comunidades e o senso de responsabilidade pelo comum prosperam nesse cenário, realizando um movimento em direção a uma maior participação cidadã. As escolhas passam a ser escolhas, atos conscientes das causas e impactos gerados.
- Ponto de partida 5: A criação e o incentivo às redes de cuidado são centrais no fortalecimento e na manutenção das comunidades. O sucesso de uma comunidade próspera depende do apoio e do respeito mútuos. Os grupos reconhecem a importância do cuidado como sua força motriz. Há valorização dos saberes e fazeres dos mais velhos e das mães, assim como a reciprocidade nos seus anos de cuidado. Há cuidado com as crianças, com o reconhecimento coletivo de que são um bem comum, uma responsabilidade de todos, essenciais à manutenção da prosperidade ("é preciso uma aldeia para educar uma criança").

4.2. Vídeo

O vídeo [Figura 6] com a duração de 4 minutos, conta por meio de narração sonora e de recorte de vídeos (produzidos por artistas externos ao projeto), a síntese da proposta central do cenário e explana os seus pontos de partida. Esse formato teve como intuito o compartilhamento entre uma rede de contatos envolvidos com muitas das iniciativas de transformação da cidade, a fim de serem colhidos *feedbacks* e contribuições para que o cenário continue vivo, sendo construído e reconstruído. Da mesma forma, busca-se que esteja aberto, em formato de site e apresentação, para servir de mapa para gerar discussões e resultar em estratégias em todo o ecossistema.



Figura 6: capa do vídeo que pode ser acessado pelo link: <https://vimeo.com/615274673> Fonte: autores, 2021.

4.3. Mapa de atores

O mapa de atores [Figura 7] é outra visualidade do cenário, permitindo a entrada para ele por meio dos próprios atores no sistema. O objetivo é permitir que os atores mapeados se reconheçam no cenário, identificando, a partir do mapa, em quais pontos de partida e frentes de ação podem atuar, assim como com quais outros atores podem realizar conexões.

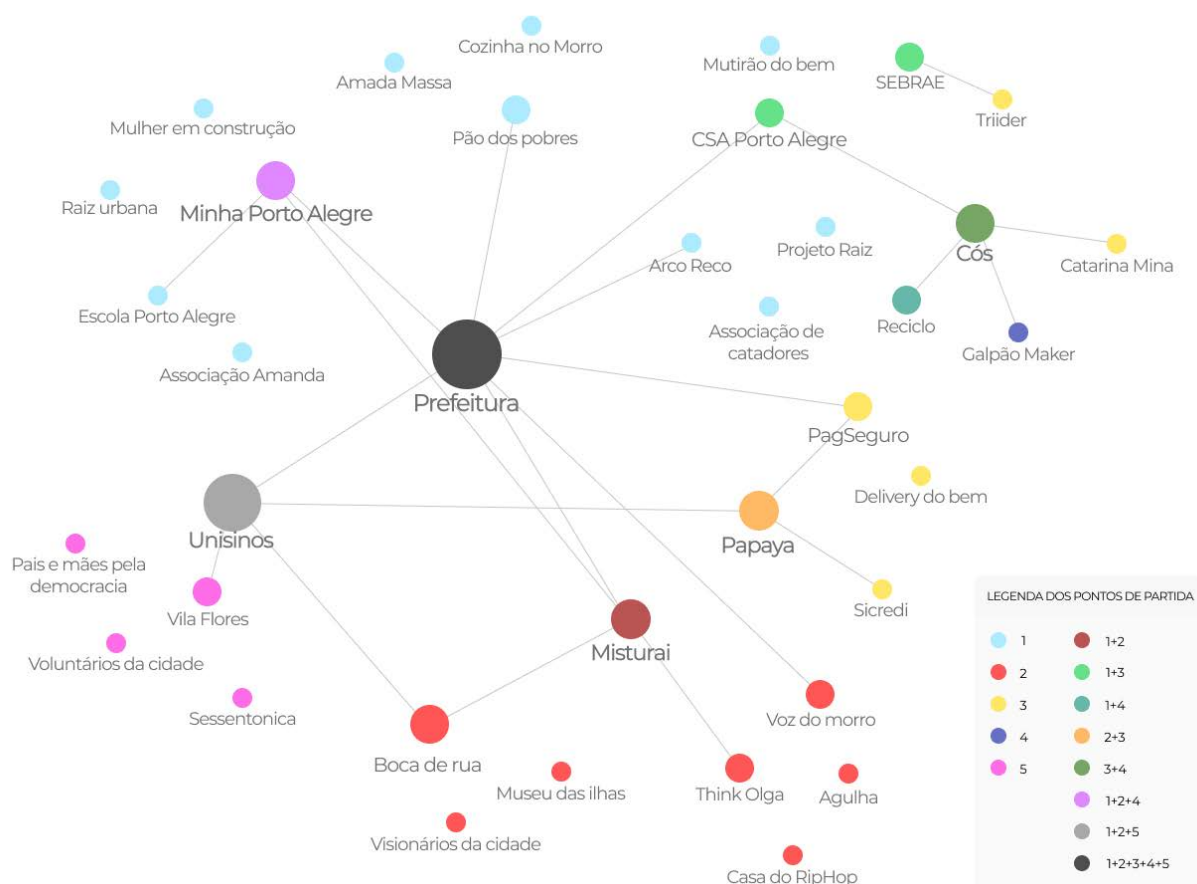


Figura 7: mapa de atores. Fonte: autores, 2021.

5. Como utilizar o cenário

O cenário é um mapa, a ser explorado conforme o ator que por ele navega. Ele é propositivo, e não diretivo. Organizações de todos os tipos que compartilham a visão de futuro aqui apresentada podem se utilizar desse material, a partir de uma ou mais visualidades (narrativa em texto, vídeo e/ou mapa de atores) para gerar discussões em grupos e elaborar, a partir disso, estratégias com olhar para todo o ecossistema. Os diálogos nas organizações podem, ainda, levar à evolução do cenário aqui proposto e à elaboração de novos cenários, mantendo este um processo aberto e vivo e contemplando a possibilidade de criação de diferentes realidades futuras. A processualidade promovida pelas organizações pode também ser compartilhada com o PPG Design da UNISINOS.

Além disso, algumas estratégias são aqui propostas a partir das intersecções possíveis com a academia: disseminação das inovações, workshops, coalizões de design e projetos de extensão e pesquisa [Figura 8].

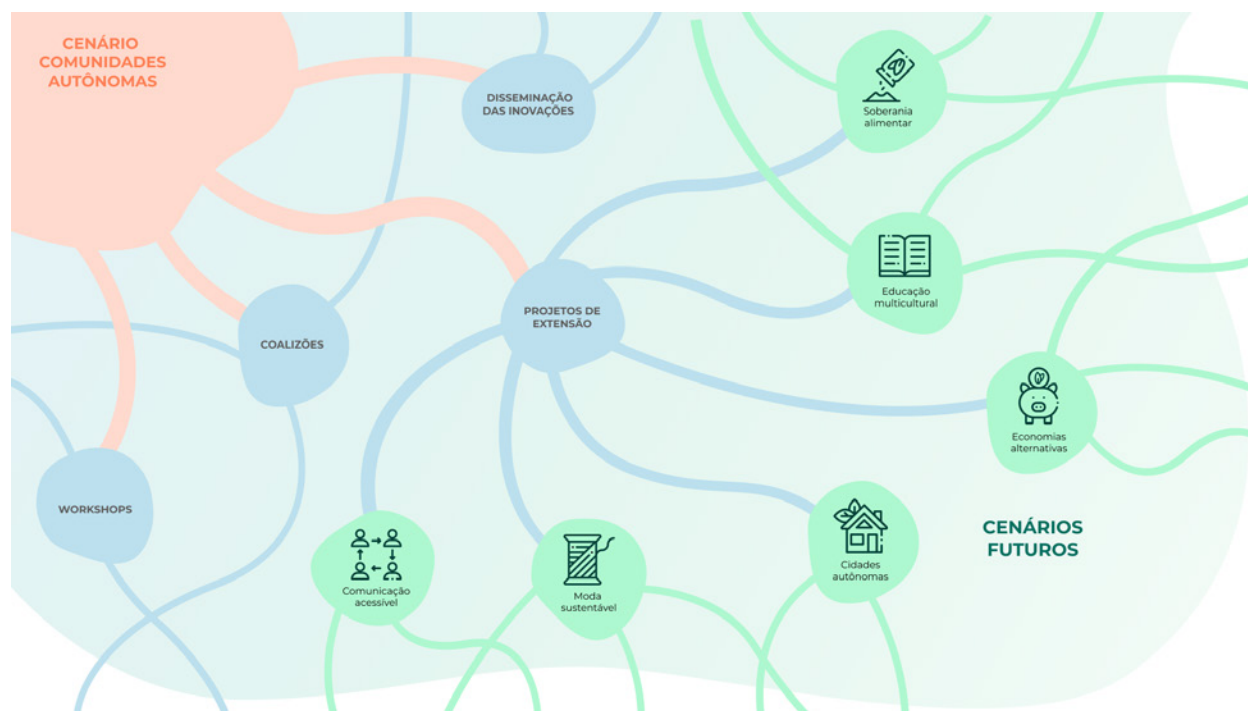


Figura 8: mapa de como utilizar o cenário. Fonte: autores, 2021.

1. Disseminação das inovações

- Reunir e disseminar as inovações existentes.
- Criação de um ambiente de inovação para conectar as pessoas a partir do compartilhamento de inspirações projetuais orientadas pelos pontos de partida traçados. Transmite iniciativas que já vivenciaram ou estão construindo o cenário proposto.
- O ambiente torna-se um espaço de colaboração entre iniciativas e diferentes atores sociais a partir de conceitos projetuais abertos.
- A comunicação pode ser feita em forma de questionamento ou proposição, por exemplo, com abertura a novas construções de significado: o que é? Como funciona? Quais os processos e ferramentas?

2. Workshops

- Propor criações mais livres a partir da plataforma com os pontos de partida aqui estabelecidos, tratar especificamente das soluções para esse cenário de forma mais abrangente.
- Partir de um dos pontos de partida e junto aos atores sociais propor soluções mais direcionadas a algum problema, ex. a distribuição das marmitas e a questão da alimentação junto ao Misturaí ou a divulgação de informações dentro das comunidades junto ao Boca de Rua

3. Coalizões de design

- Gerar, a partir do mapeamento das iniciativas e dos pontos de partida, coalizões de design.
- Busca da promoção do diálogo entre as diferentes iniciativas para a construção de atividades coordenadas entre os atores. Os pontos de partida traçados podem constituir visões comuns para a criação de tais atividades.

4. Projetos de extensão e pesquisa

- Atuação na produção de marmitas nas comunidades, com formação de cozinheiros e educação para a alimentação e a sustentabilidade (junto ao curso de gastronomia)
- Atuação no desenvolvimento de meios de comunicação para o reconhecimento e difusão dos saberes desses grupos (junto aos cursos da comunicação)
- Atuação no desenvolvimento de meios de divulgação das produções locais e capacitação de novos empreendedores (junto ao curso de GIL e Design)
- Criação de espaço laboratório para a experimentação e troca de novas práticas e desenvolvimento de projetos por meio de processo imersivo em comunidades. Objetiva-se gerar novos conhecimentos e recuperar conhecimentos do contexto.

6. Considerações finais

Desenvolver um processo de design em período de distanciamento social impôs novos desafios os quais emergem como uma oportunidade para avanços metodológicos ao design estratégico e à projeção por cenários. Os cenários orientados pelo design estratégico podem encontrar nas dinâmicas assíncronas e indiretas obstáculos para a manutenção de uma equipe de trabalho conectada, engajada e colaborativa. Os processos de cocriação dos cenários são realizados, usualmente, em formato de *workshop*. Dessa forma, buscam a criação de um ambiente físico ativo e criativo, por meio da troca constante e da ativação das relações, facilitado pelo papel do designer. A supressão desse ambiente foi ocasionada pelo distanciamento físico, mas também pelas dificuldades encontradas pelos atores nos primeiros meses da pandemia, levando à reflexão sobre o respeito às novas possíveis concepções de espaço e temporalidade, resultado das novas formas de vida surgidas durante a quarentena.

O modelo de cocriação assíncrono e indireto de trabalho apresentou-se como profícuo a esse tipo de processo, pois respeitou as individualidades. As ferramentas da nuvem permitiram o estabelecimento de diálogos, registros e o estímulo à criatividade, desde que sempre ativados pelos breves momentos síncronos. Os momentos de encontro virtual, com alta intensidade de alinhamento de expectativas e conversão e geração de ideias, se mostraram complementares e essenciais ao processo, mas demonstrase, aqui, não haver necessidade de restrição a eles.

Outro desafio imposto pela pandemia foi a dificuldade de acesso aos atores ao qual o projeto se destina. Sob a luz do design estratégico, buscou-se operar considerando-se o design participativo e o codesign como a criatividade que resulta da colaboração entre designers e as pessoas que vivenciam a realidade problematizada, buscando um aprendizado recíproco (SANDERS; STAPPERS, 2008). Devido à impossibilidade de realizar processos presenciais e em imersão nas comunidades, optou-se pela busca por uma colaboração que se expressou na forma de conversas pontuais com especialistas nas temáticas e/ou envolvidos diretamente com aquela realidade, sobretudo lideranças e profissionais que convivem com as situações dos vulneráveis. Compreende-se que foi possível realizar um processo rico em geração mútua de conhecimento ao ser utilizado o recurso da entrevista semiestruturada e dos *feedbacks* às visualidades. O processo proposto resultou em contribuições relevantes ao cenário, ao mesmo tempo em que levou os não-designers com os quais se estabeleceu diálogo a reflexões aprofundadas, críticas e, inclusive, ao envolvimento emocional com o cenário apresentado. Sendo assim, o diálogo prévio e, em especial, o intermediário (apoiado pela visualidade), apresentaram-se como partes importantes de uma estratégia frutífera para contornar obstáculos de presencialidade e de tempo.

Entendemos que este projeto que surge de um pedido de socorro urgente às populações consideradas "invisíveis", mas que se propõe a ir além ao expandir-se na tentativa de uma transformação profunda,

sistêmica; abre oportunidades e convida novos pesquisadores a tentar ressignificar a conjuntura para as comunidades mais vulneráveis por meio da autonomia. Vemos na criatividade e na imaginação um caminho para a construção de futuros alternativos.

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OCAD University
July 22-23, 2021

Pivot 2021
Virtual Conference
Dismantling / Reassembling

Theme

Narratives Between Multiple Worlds



The Tools and Methods towards Liberatory Joy - Research Through Faraoyść

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How do you imagine alternatives if you either don't have the space for it, or are being restrained from imagining? Faraoyść - the shared emotion of joy liberated from systems of oppression, which creates a portal towards possible new realities - is a method that facilitates the imagination of alternatives to our current reality currently determined by what is known, what is assumed, and what stops one from imagining. We created and developed tools to cultivate and evoke faraoyść that involved poetry writing, culturally-specific storytelling, music, co-design, and the action of naming the self and objects. These tools resulted in a collective emotional intelligence and emergent worldbuilding that helped participants materialize speculative objects and co-create stories. As researchers, our tools were developed through our design principles which require being invited by a community seeking to unlock their capacity to imagine alternatives, and co-designing with them. Faraoyść aims to empower, and gives specific tools for those who search for new ones. These methods co-create concrete utopias that are rooted in historically situated struggles, and are done through the lens of serious play. We share our process of developing these tools and methods in constant conversant collaboration around a roundtable.

Faraoyść, alternative worldbuilding, speculative design, imagining

Introduction

Anna:

Welcome to our roundtable discussion. We've chosen to go a bit unorthodox with our structure. We will be showing discussion about the tools and methods of liberated joy that we developed and discovered in our research into emergent collective worldbuilding, and layering that with quotes and examples of the tools themselves.

Julia:

This roundtable is a discursive exercise that we always do in our constant conversant collaborations¹. These moments, stored in our memories and our bodies, represent very important spaces. These are spaces where worldbuilding can be collective processes through the celebration of different worldviews, stories and situated knowledges (Haraway, 1988). They are spaces where imagination has emergent properties outside of the limits of time. What is on my mind right now are the tools we used in our world-building workshops in the past two years through a lenses of *faraoyść*², which forms the groundwork of everything we do.

Nour:

The word *faraoyść* came into life from our own conversations of feeling an emotion we didn't have a name for. These conversations turned into a praxis where we mash-up our languages, our cultures and our different ways of imagining. We employed a variety of efforts to evoke *faraoyść*, all stemming from the idea of "avra kehdevra" (Oxford English Dictionary, 2009), or, "I create as I speak". If we want to create the objects, the language, and communities necessary to change our world, we need to start by imagining *alternative* worlds from a place of liberated joy. Which is why we've created a recipe for a successful *faraoyść* approach to design?

Julia:

I love that recipe metaphor. I would even say that what is unique for the tools we collaboratively built is that they are not only design-led but also emotion-led. To be as specific as we can: *faraoyść*-led tools and methods, which are the feelings of liberatory farah, radość, joy, even if momentarily felt – is at core of every space we build, ingredient by ingredient.

Anna:

And these *faraoyść*-led methods allow us to develop tactics and strategies to bridge the imaginative worlds that our participants create. This shifts one's agency over their imagination, and puts the strategies and tactics developed in the practice of that imaginative act back into the hands of the participants. This surfaces and challenges "captive imaginations" which are imaginations that have been captured and oppressed through interlocking systems such as capitalism and colonization (Karuri-Sebina, G. et. al 2020). These tools and methods can contribute to the decolonial project because not only does it lay bare the ways colonization places limitations on the colonized person's ability to imagine alternatives, but it also allows the terms of struggle and liberation to be defined by those directly affected by colonization. We engaged in these methods as researchers who were able to create a space for co-imagination, not as "saviors" who were coming in with any sort of answer.

¹ Through talking to each other and constantly trying to communicate across cultures, languages and experiences – researchers developed a conversation space that leads to collaborations between them.

² *Faraoyść* (faw-row-she-tchi) is a portmanteau neologism that describes the moment when oppression appears to be coming to an end and a joyful, liberated world feels within reach. An exercise of translinguistic belonging combining elements from three of researchers languages: (Arabic: farah, English: joy, Polish: radość).

Nour:

It is important to note that a good chef always knows how to improvise while cooking, and therefore the facilitation of our workshops also comes with improvisation and reacting to the conversation we are having in-situ. This work is a piece of a larger project that we've been working on for the past two years. We are showing you our basic ingredients that support our work. We hope you'll get a taste of *faraoyśc*.

These recipes were created and tested in a series of workshops both at the UNESCO 2020 Futures Literacy Summit in and in collaboration with Negligence Refugees*³ from Lebanon.

Ingredient 01: Self-Renaming

*"Imagine me as Mango."*⁴

Nour:

I think the first tool we should talk about is self-renaming.

Anna:

Yes! This was a deceptively simple tool that we designed in response to using digitally mediated collaborative spaces due to both the COVID-19 pandemic and the fact that our participants were already globally distributed. I guess you could easily do self-renaming in-person with name tags, also. Maybe you could even incorporate symbols and images...you wouldn't be limited to an alphabet. How it works is that at the beginning of each workshop, we asked participants to change their Zoom names to their favorite food or to a word that warmed their heart. As facilitators we also renamed ourselves. We found that this act of renaming broke down power hierarchies because participants could no longer identify themselves by their institutional affiliation or their reputation in the field, which was a common observation at the UNESCO Futures Literacy Summit and other conferences we engaged in.

Julia:

Self-renaming also created these beautiful moments of connection between people. During our workshop, every time you had to call someone by the name they'd chosen for themselves, like "Mango", you knew something intimate about that person, and could feel the barriers melting.

Nour:

Name changing also added a layer of absurdity and humor to our intense conversation. Just like salt in chocolate, it allowed for some flavorful conversations to emerge. It acted as a threshold between reality and our alternative world. It brought laughter and vulnerability to our workshops, and therefore allowed conversations to flow more freely regardless of the intensity of the discussion. It evoked *serious play* which is one of our fundamental design principles (Kamara, 2021).

³ *Negligence Refugees* are a discrete part of the Lebanese diaspora who have immigrated from Lebanon due to systemic negligence and corruption in the current government. Definition by Nour Abou Jaoude, 2020.

⁴ Quote from one of the participants of UNESCO Futures Literacy Summit *faraoyśc* workshop held in 2020.

Julia:

If you think about it, naming is such a powerful tool that we use in our everyday lives. Words hold power. And the act of renaming yourself, the choice you make to surface what you want to surface in that moment through a particular word or sound – it shakes the linguistic barriers in the space, and transforms it. I truly think that *self-renaming* is one of the ingredients that made participants feel like they co-own the space, that they belong to it as we say in Polish “*na swoich własnych zasadach*”⁵.

Ingredient 02: Memory Recall Through Poetry

“Close your eyes. Think of a moment when you experienced the feeling of oppression possibly coming to an end. The feeling that maybe there would be change on the horizon, that possibly, even for a second, liberation was coming. For us, in these moments, we felt that the foundation of various systems of oppression in our lives were shaken, and made visible. We felt a liberated future on the horizon.

Now, think about your own memory of feeling that way. Find that feeling again within yourself. Open your eyes.

Take a few minutes. Play a song that you feel connected to. Write a poem about this moment in your memory for the duration of the song⁶. It doesn’t have to be complex, just try, as Audre Lorde would say, to name the nameless and formless feeling you felt (Lorde, 1984).”

Anna:

Another tool we developed enabled emergent collective worldbuilding, which was crucial for our process. We developed a memory recall technique that surfaced participants' individual memories of *faraoyść*. We then asked that they express these memories through poems and culturally-specific stories. After writing these individual stories, participants then broke out into groups and were tasked with creating an alternative world that had to incorporate elements from each of their individual stories in some way. In one experiment they created speculative words, in another they created speculative objects and names.

Julia:

Poetry can seem like a mystical, inaccessible world, accessible for only a few. But as Audre Lorde (1984) says “Poetry is not a luxury. It is a vital necessity of our existence. It forms the quality of the light within which we predicate our hopes and dreams toward survival and change, first made into language, then into idea, then into more tangible action” (Lorde, 1984). Deconstructing and reconstructing your own joyful, liberated memory through the act of writing a poem to yourself allowed participants to take a moment for themselves, look inward and find the feeling of *faraoyść*, and materialize it in the words they wrote.

⁵ [Eng.] *on their own rules*.

⁶ During our workshops we played a song by Lebanese artists. “Al Thoulathy Al Mareh - الغلاطي المرح - Asmar Ya Sukkar (Radio Martiko RMLP005).” YouTube, YouTube, 20 Sept. 2018, www.youtube.com/watch?v=qF6t620jfSg.

Nour:

Memory recall was an essential element in the thinking and the continuity of the work. We answered the question: how can people and societies imagine collective and inclusive futures together if they do not know each other's past and memories? Once our participants shared their memories in the breakout rooms, it evoked a coming together which made the possibilities of imagining futures collectively more tolerable.

Ingredient 03: Słowords Alchimie⁷ – Word Creation

"Circle a line from your faraoyść poem and imagine a new reality that uses this line as its core. Think of an image, object, environment that you start seeing in your mind out of the sentence you wrote.

Imagine an object that would exist in this world. One that doesn't yet exist in ours. What is it? What does it look like? What sounds does it make? Now create a name for it that doesn't yet exist in your language. A name that would make sense only in this new reality that you are imagining."

Julia:

Creating new words aims to disrupt the methodological difficulties of existing language in Futures spaces. By creating sounds and making words that didn't exist for them before, participants challenge the current terminology for imagination and worldbuilding. By doing this, they engage in discourse with other disciplines and fields, as epistemological structures are collectively collapsed, re-negotiated and re-built in the action of *słowords alchemi*.

Nour:

It is common in the Lebanese spoken language to create neologisms that are influenced by French, English, Italian, and Arabic. The words that our participants created during the workshops married memories, cultures, futures, pasts, with their *faraoyść* emotions.

Anna:

The action of word creation also formed relational connections of translinguistic belonging amongst the participants (Canagarajah, 2017). The action of co-creating also created the conditions for emergent properties that became more than the sum of its parts. Here are some examples of the words and moments of translingualism that occurred in our workshops:

"This is when surfers and seals love the same things. It looks like this....[video glitch skfzskz, sound of bubbles underwater, water, blub blub blub] multiple voices saying "beluvial, beluvial, beluvial", [sounds of being underwater, water crashing & glitch, the ocean] And you'll send me home with one more than I needed to witness the joy." [sound of water] (FUTURE-1)

*"Our word is **Flowlam**. Which is the combination of the flow, following the flow, and Salaam in Arabic, peace. And we would like these are the core values of our future we want because*

⁷ Neologism from researchers' languages: Polish – słowo, English – words, and French – alchimie.

when you follow the flow, you can go up and down, but you're in the flow and whatever happens, you're there, and you're always at peace.” (FUTURE-8)

*“The future we decided on is one in which we're no longer counting the years. And the word that we came up with is **swivejam**. And it represents, kind of when you don't measure time anymore, and time is no longer transactional.” (FUTURE - 5)*

Julia:

Translinguistic belonging also contributed to the decolonial elements of our project by decentering and disrupting English-language supremacy in academic and development spaces. By creating new words, participants could draw from their own local experiences and knowledge. As Tyson Yunkaporta (2019) says: “English inevitably places settler worldviews at a center of every concept, obscuring true understanding. For example, explaining Aboriginal notions of time is an exercise in futility as you can only describe it as “non-linear” in English, which immediately slams a big line right across your synapses...” (p4-6).

Ingredient 04: Behavioral Mimicry

“Julia: Faraoyś is a portmanteau of the words fara[h]...Nour did I say that right?

Nour: Farah. Yes.

Julia: Perfect. It's a combination of the Arabic word: farah; the English word: joy; and the Polish word: radość...”

Nour:

We incorporated Chartrand's and Lakin's theories of behavioral mimicry and Brechtian performance theory into our workshop which allowed us to all co-create a space together (Chartrand & Lakin, 2013; Brecht & Bentley, 1961). We modeled certain behaviors in our facilitation, for example Julia saying “farah”, which is in Arabic (a language she doesn't speak), and then deliberately checking the pronunciation with me. This integrated humor into the workshop and word pronunciation and combated the shame that is associated with mispronunciation. It made participants realize that there is room for “mistakes”. By demonstrating our own blind spots and vulnerabilities, participants could mirror this behavior in their co-creative breakout rooms and be confident in questioning and visibilizing their own biases, fears, and vulnerabilities. This allowed participants to see existing constraints on their imaginations, which was the first step towards eventual questioning and expanding.

Julia:

This ingredient is an important part of creating a collective emotional intelligence together. Worldbuilding together is such a delicate process because of the constant power struggles that come with it. When the negotiation comes from our own expressed vulnerability as Nour said, it allows the process of building that is becoming full of known unknowns. I think this ingredient comes with a lot of care, and negotiation – how to be together without enforcing particular dynamics and hierarchies of ways to imagine.

The Final Recipe

Julia:

Through our *faraoyść* workshops both at UNESCO Futures Summit and with Negligence Refugees from Lebanon, our findings demonstrated a sense of liberation, a desire for self-organized, self-determined societies, a world that operates in queer time, and a sense of BEING-WITH. Our research found that by centering the workshops through a collective feeling of *faraoyść*, people from different backgrounds: Lebanese, Polish, American, refugee, diaspora, etc, were able to find communal connection. They created concrete, materialized utopian realities that challenged dystopia (Muñoz, 2009). This work builds capacity to imagine, and imagine through a lens of liberated joy.

Anna:

Each tool was co-designed and responsive to the people in the room. When we combined our ingredients:

- One pinch of self-renaming for spark and hierarchy disruption
- 1 cup of memory recall and poetry to add the depth of lived history
- Several spoonfuls of new words to create never-before-known flavors
- Three whole mirrors to create a space for vulnerability, questioning, and turbulent exploration

We found that people were capable of not just imagining new worlds that addressed the systemic oppressions they were experiencing, but create collective tactics that would bridge the current and the alternative. We're in a moment where new strategies and tactics are desperately needed.

Nour:

And as we said, we believe this can contribute to the global de-colonial project because it allows communities to imagine their own alternatives by centering their own definitions of *faraoyść*, and their own memories of feeling liberatory joy as a seed for liberatory futures. Participants can identify the extent to which their imaginings have been colonized, and break out of those frameworks by placing themselves in the alternative.

And don't forget, for this recipe to be a success, it needs a splash of disco, funk music⁸, and groove to get yourself in the right mind to cook some futures.

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⁸ KoolAndTheGangVEVO. "Kool & The Gang - Get Down On It (Official Video)." *YouTube*, YouTube, 5 Oct. 2009, www.youtube.com/watch?v=qchPLaiKocl.

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About the Authors

Nour Abou-Jaoude is an experienced freelance creative strategist, with a deep commitment to systems change and the futures of our societies. Growing up in Lebanon, she had to learn from a young age how to inspire and create with limited resources in innovative and efficient ways. Throughout her life and career, she learned to navigate multiple barriers and boundaries through storytelling. Her unique experience gives her room to design for the complexity of societies in a compassionate way. During her time as an Art Director in Leo Burnett Beirut, Nour successfully led an integrated, 360-degree campaign to abolish article 522 of the Lebanese Penal Code, which stated that a rapist was exonerated if they marry their victim. As a result of the media pressure exerted on parliament by her campaign, the code was abolished. She graduated in 2021 with an MFA from Parsons, in Transdisciplinary Design and acquired skills such as service design, and speculative design. She speaks three languages fluently (French, Arabic and English) and found that the act of translation between these three languages reveals hiccups and dislocations in the systems that surround her and therefore gives her room to design for change accordingly.

Julia W. Szagda is an experimentalist, transmedia artist, and researcher who believes imagination should start from the heart. An immigrant in the English language. Selected as YICCA 2020 finalist with her speculative work "Accentful American Anthem" which imagined a world where speech becomes more multicultural and inclusive, representing various linguistic patterns, poetic irregularities, ways of story-singing, and emotions. She has a background in non-profits, humanitarian organizations, and social businesses focusing on children's education. She graduated in 2021 from Parsons School of Design with an MFA in Transdisciplinary Design and presented at UNESCO Futures Literacy Summit, ADX 2021 Conference, Core77. Currently, she works as a learning scientist and systems transformation consultant at UNDP and is involved with other activists in fighting for women's rights in Poland.

Anna Lathrop is a futurist and transdisciplinary artist whose work lies at the intersection of alternative worlds-building and justice. She also works in theatre as a director and producer, and the co-founder of Groundwater Arts - a citizen-artist collective working to envision American arts and entertainment through a climate-justice lens. When not doing any of the above, she is also a painter. She has consulted and presented at UNESCO Futures Literacy Summit, Patagonia, ADX 2021 Conference, and is a mentor in the Emerging Scholars program at Design and Culture Journal. She is also a teacher in the Strategic Design and Management (BBA) program at The New School. She received her MFA in Transdisciplinary Design from Parsons School of Design at the New School in 2021, is a member of the Impact Entrepreneur Fellowship, and a recipient of the John L. Tishman scholarship.

Navigating a BIPOC Identity Through Solidarity Design Labor

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This short paper uses experiences as a design practitioner, an activist, and a 2nd generation immigrant as a means to understand and define “good work”, and how that work can assist in navigating one’s identity. The “good work” is self-defined by the author as labor produced in solidarity with communities in need of support. Through the obsession with work, albeit “good work”, one can ultimately lose sight of their own identity through assimilation. Or at the very least, be forced into a work-first lifestyle where constant code-switching is necessary, which forces the siloing off of each identity lens, never to see the collective identities represented and experienced in full.

The intent of sharing these lensed histories, lived experiences, and struggles of compromising identities are to offer an alternative pathway moving forward. This pathway would recognize and embrace one’s plural identity earlier in a career, seeing it as an asset rather than a deficit. Suggesting that if said mindset were to be adopted and practiced amongst BIPOC, specifically Asian American designers, greater solidarity work and movements could arise with the intent of dismantling the systems of oppressive power, explicitly white supremacy and capitalism.

Keywords: Black and Asian Solidarity, Labor, Code-Switching, and Assimilation

About the Author:

Dave Pabellon University of Illinois at Chicago (MFA '07), is an Assistant Professor of Graphic Design at Columbia College Chicago and a design consultant under the moniker It Is Just Dave LLC, with a focus on partnerships with cultural institutions, contemporary artists, and activist organizations.

Pabellon most recently was an Assistant Professor of Graphic Design at Dominican University and prior to that held the role of senior designer at the award-winning studio Faust Associates. In addition to his professional and academic practice Pabellon also serves as the Co-President for AIGA Chicago, is a roster member of Dark Matter University, and is a Core Organizer of the Design As Protest Collective.



01

This paper uses multiple lenses of connected experiences and research in those perspectives to define “good work”.

The first mode, serving as a design practitioner and educator, with a focus on branding, digital/web design, and long form publication.

(Image of a light-skinned hand on an Apple magic mouse, with blue lined arrow diagram layered on top.)



02

The second view, as an activist/
organizer, primarily working
in community based arts and
design justice.

(Image of a dark-
skinned hand
clenched in a fist,
palm facing.)

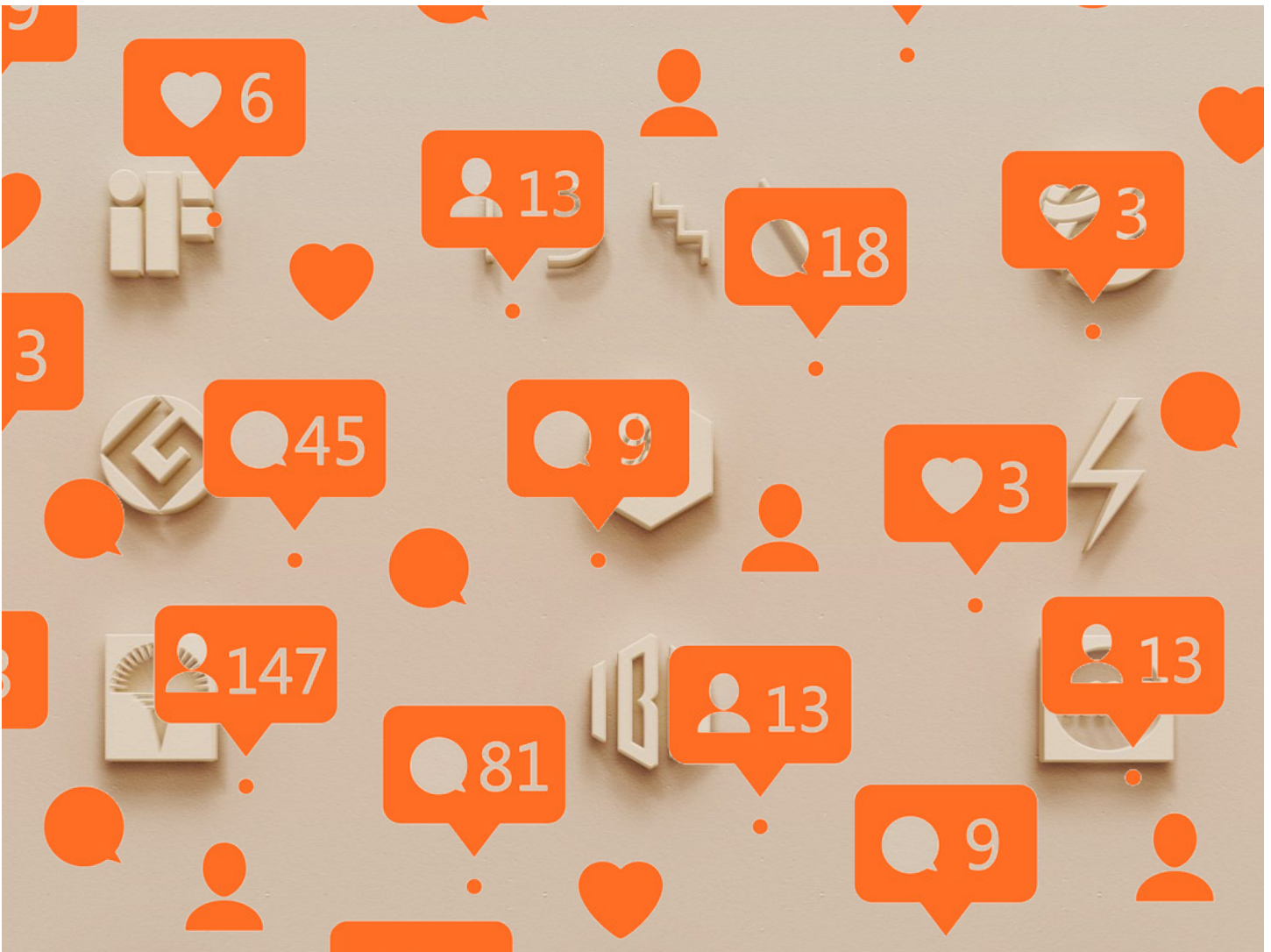


03

The third perspective, comes from the view as a 2nd generation Asian-American immigrant of Filipino decent, whose family moved to the states during the influx of the immigration boom of the '60s and '70s.

These hands are not mine, but rather serves as a reenactment of how my mom would read my, and my siblings, hands during lull moments in the day.

(Image of a mid-tone skinned hand, palm facing, with symbols and text written on top with black ink. The hand is held and supported by another set of hands.)



04

For me, starting my career as a designer, “good design” (not to be confused with design-for-good [AIGA] or Dieter Ram’s definition) was associated with winning awards from professional organizations, clubs, or associations. Which usually translated to measured monetary gains for the designer and/or the client.

Today, that metric might be replaced by the amount of likes, comments, or followers one might have.

This was primarily my bread and butter, pay the bills, 9-to-5, professional work.

(A beige collage composed of 3-D renderings of professional organization award logos overlaid with orange social media “like” and “following” icons.)



05

As an activist, the “good work” was always about social justice that was driven by a moral and ethical compass that directed my participation in organizations and collectives. The effort/intention was, and still is, to create action, which in turn would manifest into societal change.

This was my work after-hours of the design studio, usually.

(Image of shadows casted on a street of protesters holding up signs, with their arms in the air.)



06

And as a son of Asian immigrants “good work” looked like sacrificing one’s self, mostly at the expense of assimilation, to provide for your family and community to keep them and future generations financially and physically safe.

This identity was mostly seen in family events and holidays when professional design and activist work would allow me to participate/attend.

(Soft-focused sepia-toned photograph of a Filipino family from the 1950s seated around a dinner at a table in a restaurant, the image is comprised of six women and two men, three people are standing.)



07

These different hands and the way they are positioned have their own semiotics and each represent a lens, and each lens has a spectrum. These spectrums are wide which makes it difficult to feel confident in who you really are.

(Image composed of the hands described in slides 01, 02, and 03. Each hand is cropped into a circular shape. The circles are not touching and are evenly spaced out.)

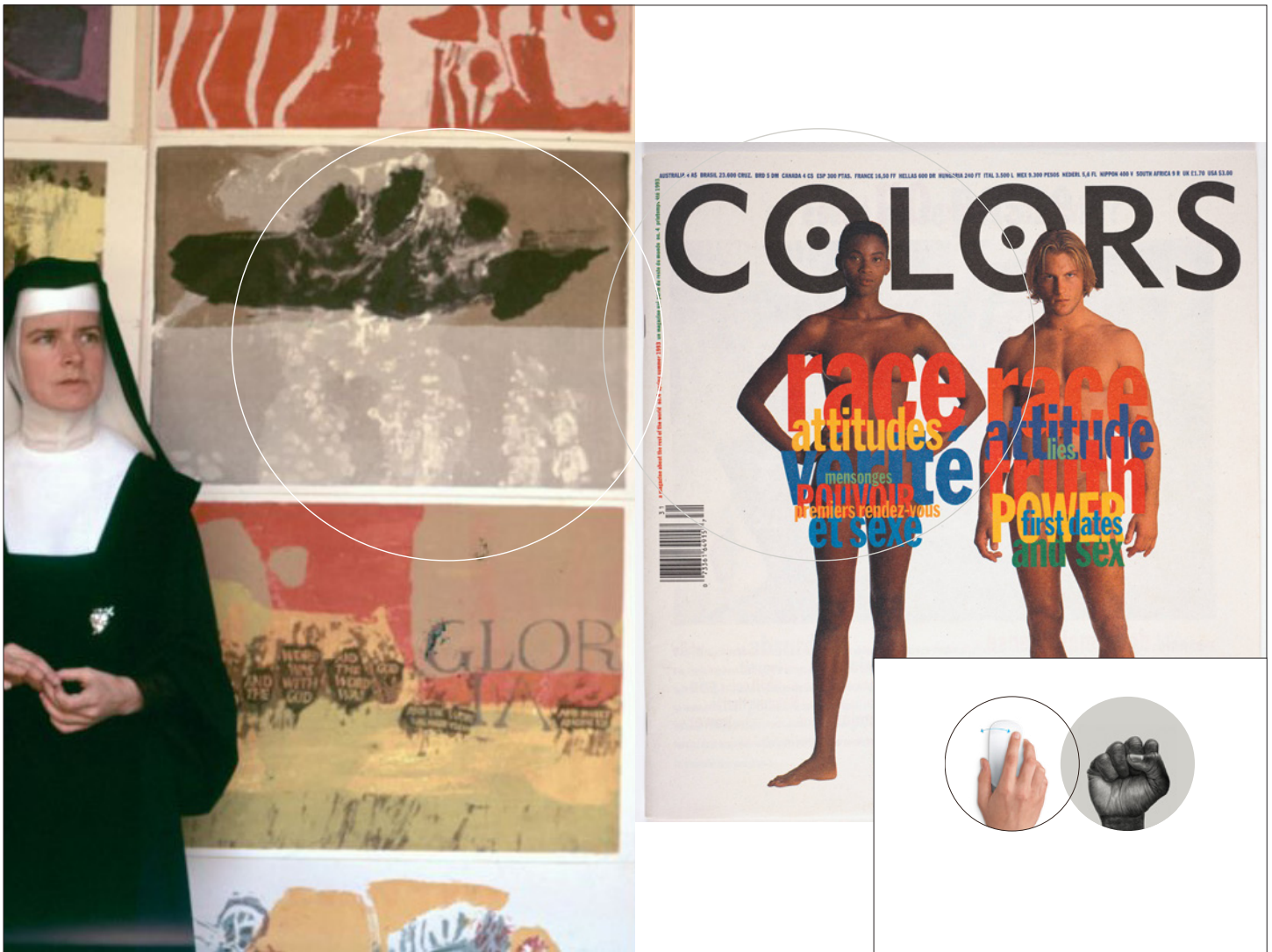


08

Early in my career, I would openly seek successful Filipino graphic designers and share their stories and work with my family to justify my career and academic choices, I'm still not sure if my parents knew/know what I do for a living.

Lucille Tenazas and Patrick Castro, directly and indirectly formed my practice and outlook of graphic design as a Filipino practicing in the Bay Area.

(Collage of a red book cover with white text on the left and an off-white typographic poster with yellow highlights on the right, overlapped on the two images are two overlapping circles. Inset in the collage are the hands described in slide 01 and 03 cropped into circular shapes, overlapping.)



09

Design and activism, seemed like a pipe dream to me.

I was happy to learn about Tibor Kalman and Sister Corita Kent's legacy. They were also influential to me, their use of the graphic design to advocate for Social Justice and tolerance was inspiring.

However, the idea of designing for activism, while getting paid, seemed like a privilege that was not available to many brown, yellow, and black designers trying to break into the predominantly white industry.

(Collage of a nun in front of a wall of posters on the left and a magazine cover on the right, overlapped on the two images are two overlapping circles. Inset in the collage are the hands described in slide 01 and 02 cropped into circular shapes, overlapping.)



10

Yuri Kochiyama and Grace Lee Boggs were my initial reference points of Asian-American activists that worked in solidarity with other populations of color.

(Collage of a woman in glasses looking up on the left and a woman looking to the left on the right, overlapped on the two images are two overlapping circles. Inset in the collage are the hands described in slide 02 and 03 cropped into circular shapes, overlapping.)



11

Later I would be exposed to and learn about Filipino activists such as Larry Itliong and Emil de Guzman, names never shared with me in classrooms or in my household growing up.

(Collage of a man with a mustache and a cigar in his mouth on the left and a man in glasses looking down on the right, overlapped on the two images are two overlapping circles. Inset in the collage are the hands described in slide 02 and 03 cropped into circular shapes, overlapping.)



12

The intent of sharing these lensed histories, lived experiences, and struggles of compromising identities is to offer an alternative pathway moving forward. This pathway would recognize and embrace one's plural identity earlier in a career, seeing it as an asset rather than a deficit.

If said mindset were to be adopted and practiced amongst BIPOC, specifically Asian Americans, greater solidarity work and movements could arise with the intent of dismantling the systems of oppressive power, explicitly white supremacy and capitalism.

(Image composed of the hands described in slides 01, 02, and 03. Each hand is cropped into a circular shape. The circles are touching, and are overlapping.)

Making Sense/zines: Reflecting on positionality

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We have to be conscious about our own situatedness in the ecologies for and with which we design, but also invite for critical reviewing it. In order to do so, to become conscious and to critically review, I believe something needs to trigger and intervene. This paper is a personal account of sense-making and tool shaping, to support critical reflecting on my own positionality. I introduce my two tools: Graphical Peeling and Sensing/Zining, which rely both on 'layouting' to provide space for reflection. I am not a graphical designer, rather this way of working seems to help unbalance my very personal understandings, assumptions and experiences and provides a space where I can go in dialogue with myself and my experiences. By bringing together experiences, designs made and notes from research and reading, I am working through the material in different ways. I go deeper into the context with each layer I am adding, rethinking the situations that occurred and providing an opportunity to stop, think and be critical. Through this paper I do not necessarily aim for others to use those tools specifically, but rather emphasise the importance to allow for personal, creative, designerly journeys of sense-making, and decolonisation.

Reflective spaces; making; positioning; decolonisation

1. Introduction

This paper is a personal account of sense-making and tool shaping. I am a design researcher who has been working with different (indigenous) communities and questions about how to invite for dialogue between ontologies. In this kind of work, it is of major importance never to assume understanding (fully) and to not value any way of being with, of or on the earth over another. In my work and understanding of it, I have to look critically at who I am, how I relate and my positionality as well as at my attitudes towards not knowing. This is important especially since I am a designer who grew up, has been rooted and educated within the modernist hegemony. I studied Industrial Design in the Netherlands, and we were trained to be the design expert, to take the lead in design processes. During my PhD, I focused on

whether and in which ways it is possible to work as an external designer with indigenous communities in a way that was respectful towards the community and their knowledge system. It felt like I had to unlearn many attitudes that I had acquired before. For me, my PhD was such a relearning of becoming a designer and lose ego. I became and am becoming much humbler about what design can do, and what I can bring into a space. In this process, I have developed my own tools to relearn and I am still developing tools to further my re-learning. This sense-making and tool shaping is besides an analytical, therefore also a personal decolonising journey. As Escobar (2018) highlights: *'Our ontological stances about what the world is, what we are, and how we come to know the world define our being, our doing, and our knowing—our historicity.'* We thus have to be conscious about our own situatedness in the ecologies for and with which we design, but also invite for critical reviewing this situatedness. However, in order to do so, to become conscious and to critically review, something needs to trigger and intervene. The tools I create have that function. This paper is a messy account of making sense of decolonial sensemaking, still in the process of transformation.

2. Background

In the following sections I describe how I understand becoming conscious and critically reviewing especially in the process towards decolonisation. In my education, Schön's reflection-in-action (1983) has been central. Critically looking towards this practice in detail, helped me to look beyond, to search for alternative ways of thinking about becoming aware.

2.1. Decolonisation

Decolonisation is involved with undoing colonial differences provoked by ideologies of the superiority and privilege of Western thought and approaches (Stein *et al.*, 2021). And, as Vazquez (2017) states: *'it is the struggle for the possibility of an ethical life on and with earth'*. As he introduces, firstly it is about uncovering modernity's way of worlding as a deception - as it un-worlds, rather than worlds. Then it is about understanding how modernity un-worlds and how it erases relational worlds. Lastly, it about thinking decolonial as a way to practice radical hope towards ethical live with the earth. As colonialism is a systemic problem, no one is unaffected or innocent of complicity (Stein *et al.*, 2021). Colonial patterns are embedded in our minds, bodies, relationships and institutions. This affects our whole life, both personally and professionally. We can, if we work towards decolonising design therefore never disconnect from our personal lives. It is everyone's responsibility to mitigate the consequences of this system and work towards its deconstruction (Stein *et al.*, 2021). But how we do this work, specifically, as individuals, is depended on our positionality and our context within the system as we are not all equally tied up in harm, nor equally positioned to intervene. It is thus a very personal journey, which is often difficult, slow, uncomfortable, unpredictable and even painful, as it involves processes of unlearning colonial desires and practices and to learn to be and relate differently. In order to keep working towards decolonising ourselves, especially when the journey gets tough, we need to find ways to continue, to motivate ourselves, because having the possibility to stop, is also a form of privilege that we have to counteract (Stein *et al.*, 2021). There is no end-state, it is or should be an ever-continuing process, as Cam Willett suggests (in Kovach, 2009, p.85) *'I just deconstruct everything, my mind is less, I wouldn't say its decolonised, but it's certainly a lot less colonised than it was.'*

2.2. Becoming conscious of coloniality

Your experience is what you agree to tend to. When the patterns of your attention have changed, you render your reality differently (Odell, 2020). You begin to move and act in a different kind of world. But, as attention has an inclination towards fleetingness (James, 1890), it requires training, especially to see what normally is outside of your attention. This training and directing attention relate to *conscientização*

(becoming conscious, from Portuguese), which was introduced by Paolo Freire (1970). *Conscientização* is about getting to know one's position and action in the world by acting - in which becoming aware is inseparable from action. For Freire, *conscientização* – the active becoming aware - and the resulting liberation of freeing ourselves from oppressive structures, can only happen through practicing interconnected critical reflection and action (Freire, 1970). I consider this related to what Kovach (2006) expresses: *'establishing a hyper-consciousness which pervades all aspects of our being, through which we create a heightened sense of responsibility that can be associated with the political nature of our work, be it research or otherwise.'* It might feel as if Schön's reflection-in-action (1983) is closely related, but unlike Schön's reflection-in-action, which is without a direction (Tan, 2020), *conscientização* has a goal, towards liberation. *Conscientização* encourages the practitioner to question one's values, which Schön urges to stay away from (Tan, 2020). Furthermore, *conscientização* is about 're-considering' through the 'considerations' of others, your own previous 'considerations.' (Freire, 1970, P.85), which is not the case in Schön's reflection-in-action. Reflection-in-action has namely been criticised as practicing 'self-protective individualism'. In such a practice, the learner is not stimulated to work against self-conscious, often defensive dimensions of reflection-in-action, such as selecting a particular strategy that enable the learner to retain control of a situation (Tan, 2020). Furthermore, Schön's reflection-in-action has at its foundation that the learner comes to know the world primarily through thinking about it: *'converting experiences into mental maps of an outside world'* (Yanow & Tsousak, 2009, p. 1343). I consider becoming conscious as a process of sense-making. Dervin introduced sense-making (2003) which states that we make sense of complicated ideas by doing them, rather than studying them abstractly. It is a learning, and it relies on and is subjectively dependant on the entire summation of knowledge, emotions, and prior experiences in the learner (Dervin, 2003). This is affective work, especially in decolonising work, where we have to acknowledge, analyse and take responsibility for our often uncomfortable, embodied and emotional responses to the tensions, conflicts and tensions that arise (Stein *et al.* 2021). 'It matters, what matters we use to think other matters with' (Haraway 2016). This is made concrete in the work of Kovach (2009, p.50):

'I elected to record my thoughts in a journal during the course of the research. Unlike field notes, which I understand to be recordings of observations made during field study, this journal captured reflections on thoughts, relationships, dreams, anxieties, and aspirations in a holistic manner that related (if at times only tangentially) to my research. It offered a means for tracing personal analysis and discoveries of the research that were emerging in narrative. It became a tool for making meaning and showed evidence of process and content.'

It is about inviting for Feeling/Thinking - *Sentipensar*, which is about acting with the heart, using the head (Fals-Borda, Mompox y Loba in Botero Gómez, 2019). It questions the sharp separation that capitalist modernity establishes between mind and body, humans and nature, reason and emotion, secular and sacred and life and death (Botero Gómez, 2019).

2.3. Reflexivity & Diffraction

Critical self-reflection in the meaning-making process of one's work is often referred to as reflexivity and is often utilised in work that is referenced relational (Kovach, 2009). But, as D'Amico-Samuels (2010, p.75) stated about reflexivity:

'it will take more than thinking about thinking to make object and subject fuse; the control reflexive anthropologists retain to collect, select, edit, transform, publish, and build careers from the words of those they meet in the field is not obliterated or explored by claiming to produce dialogic texts of revealing personal experiences.'

Similarly, Haraway states (1997), *'Reflexivity has been recommended as a critical practice, but my suspicion is that reflexivity, like reflection, only displaces the same elsewhere'*. And, as Barad (2014) highlights, reflexivity holds objects of investigation at a distance. As an alternative to reflexivity, Haraway and Barad therefore suggested diffraction as metaphor for – simply put – thinking things through. Unlike reflection, diffraction is a critical practice of engagement, to understand the world from within. It is 'a form of affirmative engagement' thereby creating new 'patterns of understanding-becoming' (Barad, 2014). Through what Barad (2007) calls intra-action, the emphasis in diffraction lays on material experiences, in which material objects and encounters are produced and reshaped. It has a performative dimension in that it is involved with the production of the world, instead of an objective and neutral description of it. In diffractive practices researcher and researched are thus entangled, rather than the researched object being considered from a distance, in isolation. As Barad (2014, p.181-82) says:

'There is no 'I' that exists outside of the diffraction pattern, observing it, telling its story. In an important sense, this story in its ongoing (re)patterning is (re)(con)figuring me. 'I' am neither outside nor inside; 'I' am of the diffraction pattern. Or rather, this 'I' that is not 'me' alone and never was, that is always already multiply dispersed and diffracted throughout spacetime (mattering)...in its ongoing being-becoming is of the diffraction pattern.'

2.4. Practicing readiness and Response-abilities

As designers/researchers we need *conscientização* at different aspects of our (working) lives. The obvious being when we work with people, to understand the dynamics of the interactions in those situations. But also, when we engage with reading, when we are in dialogue with other researchers, when we listen to seminars.

2.4.1. Response-abilities

We learn in relation to others - knowing is a process of 'self-in-relation' (Graveline, 1998, p.52). Haraway (2016) refers to response-able ways of engaging with the world. Murris and Bozalek (2019) suggest that this response-able engaging can also be applied to reading. Response-able reading could be seen as a form of co-becoming with the texts, authors, readers, or through reading one text through another (or oeuvre). This is in contrast with understanding each text as separate and distanced from each other or against each other. This relates to what Freire (2001, Chapter 2, p. 9 (Ebook)) points out:

'Really reading involves a kind of relationship with the text which offers itself to me and to which I give myself and through the fundamental comprehension of which I undergo the process of becoming a subject. While reading, I'm not just a captive of the mind of the text as if it were simply a product of its author. This is a vitiated form of reading that has nothing to do with thinking or teaching correctly.'

Texts that we engage with are multidirectional, as they are always already in conversation with other texts and texts that never have been written (Murris & Bozalek, 2019)

2.4.2. Practices of Readiness

Akama and Light (2018) introduce the notion of practices of readiness. As you cannot be prepared for everything that happens in situ, you need to practice readiness, which is a state of openness to what emerges and to be responsive in regards to what shows up. In readying, we have to draw on who we are and what we are doing in situ. This is in line with Kovach's preparation of the researcher (2009), a process which is unique to each individual, and has to be done by the researcher in conjunction with her world (both inner and outer). Practicing readiness (Akama & Light, 2018) is about developing a sensitivity towards understanding how deep undercurrents of personal history and experiences can

surface. By practicing this, we begin to understand our practice better which impacts the level of sensitivity we can practice in relation to others in the design process. In this way, we are able to approach uncertainty with more resilience than formal methods tend to do. Akama and Light (2018) offer the descriptive concepts *punctuation* and *poise* to highlight immaterial features of the practice and as sensitizing tools to help others consider what readiness in their practice might mean to them. In this, punctuation is about developing a consciousness of working with and immersing in the flow, gaps and rhythms of change. Poise stresses characteristics of self-awareness, of being firmly placed and a contemplation of how one is and acts.

3. Methods

Making sense through making takes a central role in my practice through research through design. Both as a mediating role between me and the people I work with and in the analytical, individual phases of my work. In the mediating phases design and making are entrance points for dialogue to uncover, for example, common grounds, tensions and shared interests (Reitsma *et al.*, 2014). This part of research through design is quite commonly written about. However, to my knowing, how design can support the analytical, personal and reflective phases in research is less vocalised. In these phases, design and making can facilitate internal processes of reflection, understanding and critically looking. It helps to unbalance my very personal understandings, assumptions and experiences and provides a space where I can go in dialogue with myself and my experiences. In this paper I introduce two tools I shaped for providing a reflective space: *Graphical Peeling* and *Sensing/Zining*. Both ways can be understood as virtual worlds, as introduced by Schön (1983), that are needed in order to obtain rigour in reflection-in-action. This virtual world is meant to be leisurely examined. The virtual world aims to provide a space to slow down in order to create time for insights to arise. Within this virtual world, all moves are reversible, so mistakes do not have consequences.

3.1. Case 1: Graphical peeling

Graphical Peeling became a tool to support my reflective learning towards becoming a designer who is respectful both to the community she works with and their indigenous worldview (Sheehan, 2011). It is about truly understanding what happened in interaction with the community I was working with.

3.1.1 Context

I had just finished a series of co-creative encounters with an indigenous community (the Penan community of Long Lamai (Borneo, Malaysia)) and I wanted to understand the dynamics of these encounters in order to get a better understanding whether these encounters were respectful to the needs and knowledge system of the community. I needed to know the power dynamics at different moments in the process, and how I responded to the contributions of the community. It was not that I only afterwards started reflecting on this, but more to really look critically at the processes that took place, to learn from and to also ready myself for future work. In the encounters, the aim was to create an exhibition together for other surrounding communities to learn about this specific community and its culture. We created a website and two exhibits that were connected to the website. The exhibits were placed in the community to show the type of interaction that was taking place on the website in a tangible form. One of them was a musical instrument, which played every time the website was visited. The second was a light installation that started glowing whenever there were new posts on the website.

3.1.2 Process

The *Graphical Peeling* tool provided a virtual world that supported organising and finding patterns. It was a messy process, in which there was no predetermined approach, but rather a process that was

shaped while doing. The starting points for exploration and sense-making were written diaries and visual diaries that I had shaped throughout the process. The written diaries I coded, which resulted in code tables. From those I made timelines (See Figure 1a). The visual diaries became annotated portfolios that also were structured as timelines (See Figure 1b). From there I made different pattern sheets (See Figure 1c&d), which focused on different aspects of the interactions, for example the type of design participation that was central in our interactions (based on Lee's design participation (2008)) or who was the initiator at which point. On those pattern sheets, I looked separately at each of the different design processes (each of the exhibits having its own process) for each of the different encounters. What I learned from the pattern sheets I then added to the timelines and to the other pattern sheets. And from there I created new pattern sheets with different focus points. In the end, I shaped recommendations for myself about what to do different, or what to keep doing. It was an iterative process in which I was, through lay outing, making graphs, and shaping timelines, peeling off layers of my experiences (for example, who was involved? Who directed the process? Whose ideas were this? What was the nature of these ideas? When was an idea shared? How did I respond? What happened then?), going deeper and deeper with each round of virtual worlding – 'peeling' - working through the data and reworking it over and over again. In this way, I was, paradoxically, adding graphic layers to untangle layers in my own understanding. Through this process I relearned to become a designer, with a different attitude towards designing. The reflections led to an understanding of dynamics of a respectful design space (Reitsma *et al.*, 2019) but also to attitudes that are important to adopt in such a space. These attitudes still guide my practice.

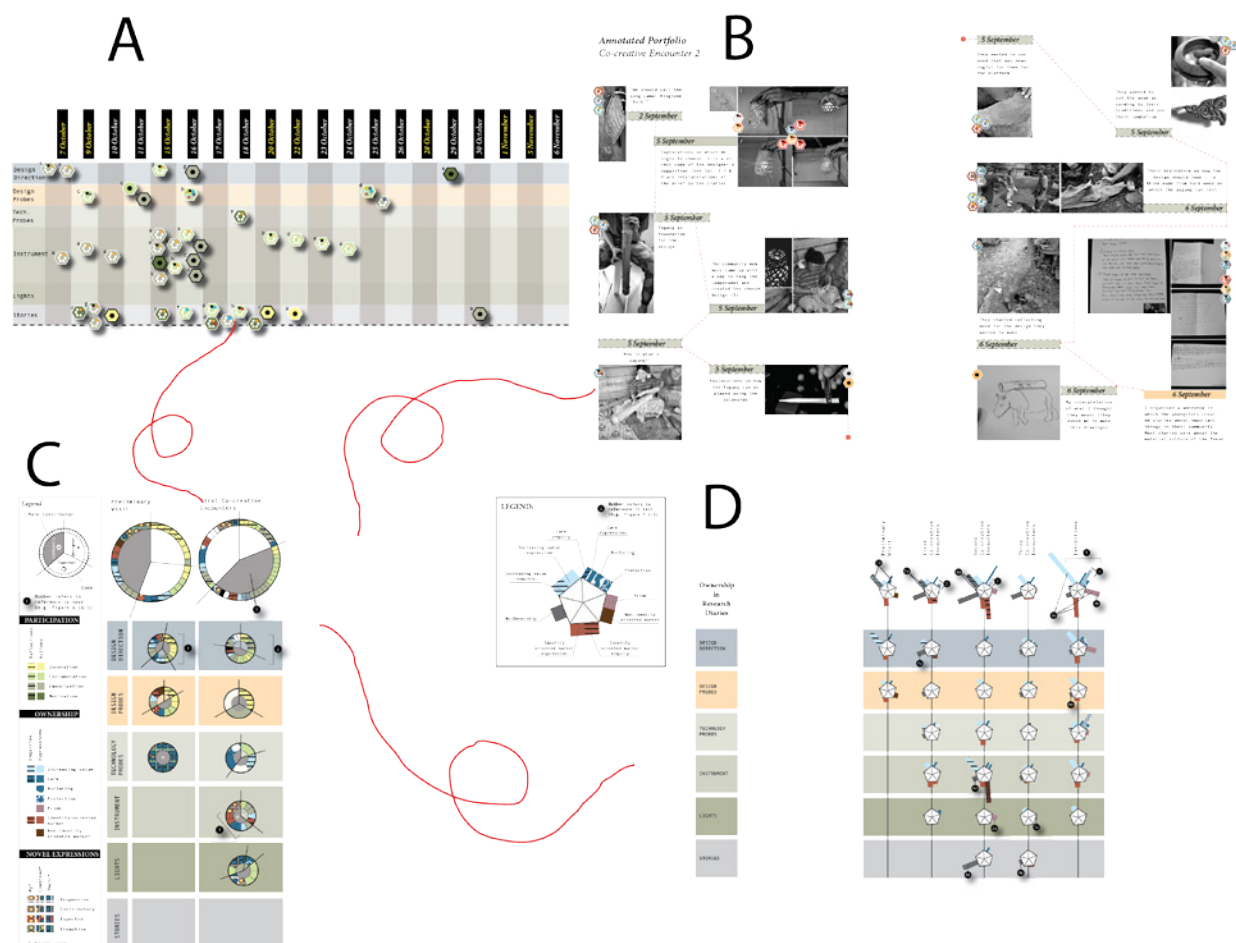


Figure 1. Graphical Peeling a) Timeline, b) Annotated Portfolio, c) Pattern Sheet & d) Another Pattern Sheet

3.1.3 Example of an iteration

To make the process a bit more concrete, I present here an iteration: This iteration started after I had created timelines from the code tables and the research diaries. I was checking whether there were no mistakes (involving counting the different codes, checking whether they were coded correctly and checking whether they were on the correct date etc.). Through this process I discovered that the design participation codes could be divided in actions and reflections. This made me dive into what this meant for the process. I then distinguished within the timeline, code tables and research diaries between actions and reflections. From this process I learned that in the first encounter my reflections changed at some point from innovative to emancipatory (following Lee's type of design participation (2008)). I then compared the diaries and the timeline and asked myself what was causing this change. I learned that it was connected to a situation during which I walked into a meeting of the Elder women. Through the way they responded I realised that I made a mistake and that I needed to be patient, to follow the pace of the community and let them lead. It seemed like me walking into that meeting needed to happen in order for me to start reflecting more critically on what it was that I was doing. However, I was not satisfied with the depth of this reflection and therefore I asked myself the question: Why did I not reflect in this way before? With this question I went through the material in order to discover how I was feeling around this time. I found the answers in the record of Skype conversations I had during that time. In those written conversations with my partner and mother I keep mentioning that I find it difficult to slow down after having worked so hard to finish everything on time before going to the community. This made me reflect on what the consequences were of not being able to slow down mean for my interactions with the community. You could say, I had a lack of poise.

3.1.4 Analysis

Graphical peeling as a tool was extremely helpful for me to understand and uncover power relations in the design process. Through the process I learned for example that the two exhibit pieces were designed through two very different processes, of which I would call one Respectful and the other not (read more about this in Reitsma *et al.* (2019)). In the process that was not Respectful, I was taking the lead, both visible through the design participation types but also by staying in charge of the ideation process. The other process was completely different as the community took charge of the process and put me in service of it. The end result was a design that was laden with meaning to them, and that I did not fully understand. The reflections about this were not just a mirror to see what happened and being aware of the different power structures that were at play but rather a way to transform those understandings and to transform them into new attitudes that still guide my practice. It is not just that I did the work, left and analysed how I was working. In the community I was mentored by one of the community members and in the preparation beforehand I was mentored by another researcher who had been working with this community. This already changed how I was working, as I was working. Those interactions are of great importance and cannot be replaced by such a method as Graphical Peeling but should be performed alongside such a process.

The field 'notes', visual diaries and other material (such as the Skype conversations) were like the journal that Kovach (2006) introduced (see above) in that they contained not neutral observations but rather emotions, thoughts, doubts, descriptions of different situations and interactions: Self-in-relation.

What was really important for the tool was that I really had the time to dwell and dwell and dwell some more. This slowing down helped me to deepen my understanding. This abundance of time helped me to embrace the messiness of the process that helped to dive deeper and deeper and to uncover unexpected realisations. I see this process as a process of readying, in which I was able to invite for more poise and punctuation into my practice.

3.2. Case 2: About Sense/zining.

Sense/zining became a tool for me to start thinking things through. To make connections, to let different readings and conversations be in dialogue with each other. I choose the format of a Zine, which are magazines that are crafted, non-commercial, amateur texts which are *“Chaotic, disturbing, uncomfortable, sensual, complex, loud, confrontive, humorous, and often a pointed and acerbic critique of mainstream culture and contemporary life”* (Congdon & Blandy, 2005). A sub-genre in Zine culture is the perzine or personal zine, which focuses on the personal experiences of the creator. As Poletti (2008) argues, through perzines, zines represent attempts to creatively (re)construct and represent the self on the page. I was inspired by *perzining* as a process of synthesis based on readings, conversations and experiences I had. I felt like I needed to shape a reflective space to come back to, that would enable me to follow threads, and see patterns and highlight interesting things that came up. The tangible format of a printed magazine, therefore became important.

3.2.1 Context

The sensing/zines came about as a tool to get all the information that I had obtained from an intensive semester of reading, listening, talking, conversing, doodling and exploring in relation to Pluriversal Design out of my head, onto paper and to make sense of it. With having had a break in my work on design with Indigenous cultures, I felt I needed a solid grounding again. I decided to craft a magazine, with all my thoughts in it, created in InDesign and printed. Not for anyone else but me. So, the first Sense/Zine I created, I created over half a year, in which I got back into working with questions about plurality. The second Sense/Zine, which also was shaped over the course of half a year was shaped in parallel with an initiative that brought different people together to support each other in decolonising ourselves and our practices by taking a practical approach towards it, together. I am currently working on my third Sense/Zine and it is shaping alongside my daily practice as a researcher and lecturer.

3.2.2 Process

Whenever I read something, or have conversations, hear a poem, see an art piece that I consider fitting inside the scope of the Sense/Zine I find a way to add it to the Zine. I give it form in InDesign through layouting. In the beginning of the making process of each volume, I explore different formats, so that each volume is somehow consistent in style. That way, I feel it is a whole, my whole story of that half-a-year. This design guide is not very strict, I can freestyle, but it gives me a bit of grounding so that I can deeper engage with the actual content. Then I start to add highlights, things that are standing out, extracting key words adding different layers to engage with what is there. In doing so, I start to reiterate the different understandings I have obtained, and also become able to connect more concretely between texts, experiences and interactions. This helps me to somehow uncover new meanings, things that I missed before. I add my thoughts although it is not necessarily to add my opinion to it, as I often just do not have one (yet). My voice, I format differently. When I have a volume compiled, I go through it again and bring everything together, make it into a whole. It is not just for the purpose of making a finished whole, but also as a way to again go through my own understandings. I, again, add these to the Zine where appropriate. Then I send it for print. This is when I start a new Sense/Zine. When the print arrives, I go through it again, adding notes, thoughts, drawings, highlighting, striking through. It is not something I do just ones, but can keep doing. From here new questions arise, new reflections, that I all can bring with me again in the Zine volume that I am working on currently, or I can let it rest as part of the Zine that triggered it.

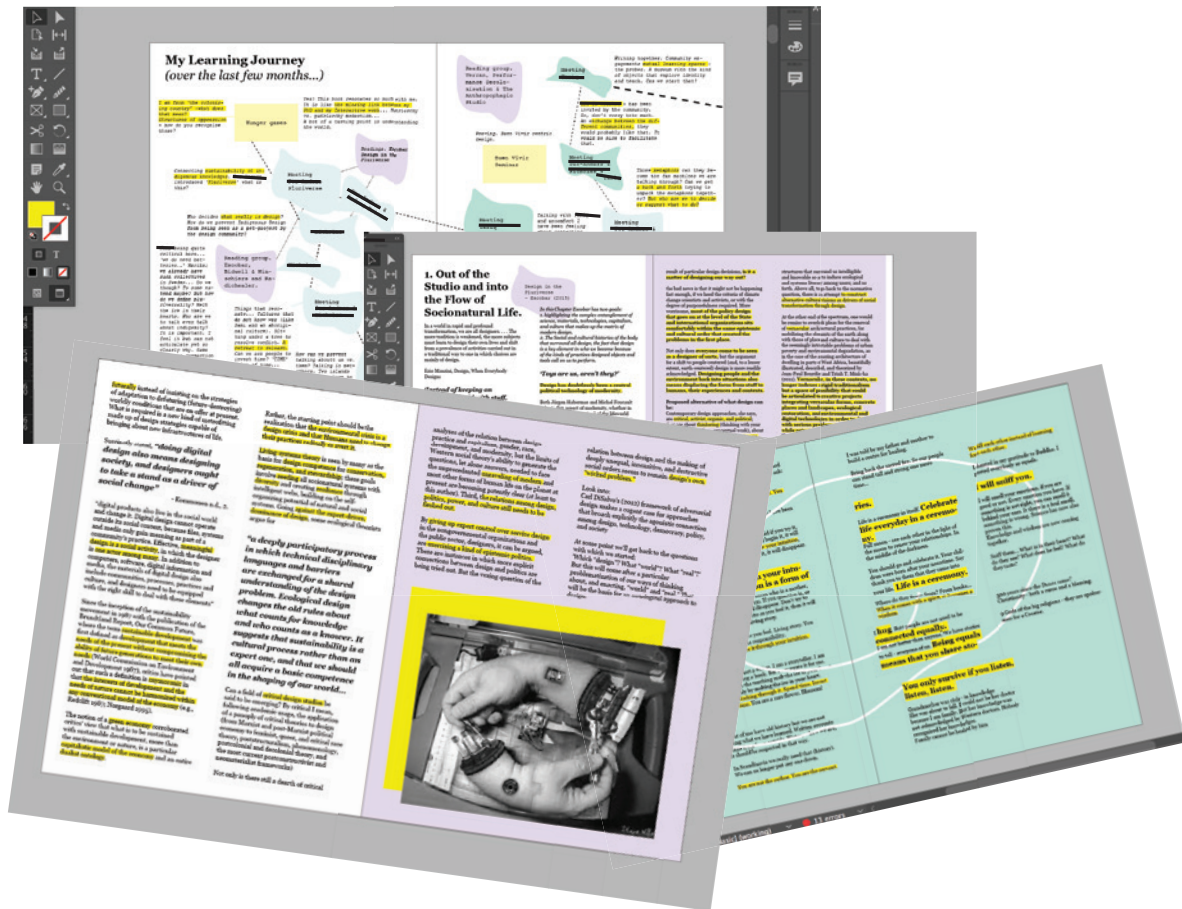


Figure 2. The first Sense/Zine in progress (in InDesign)

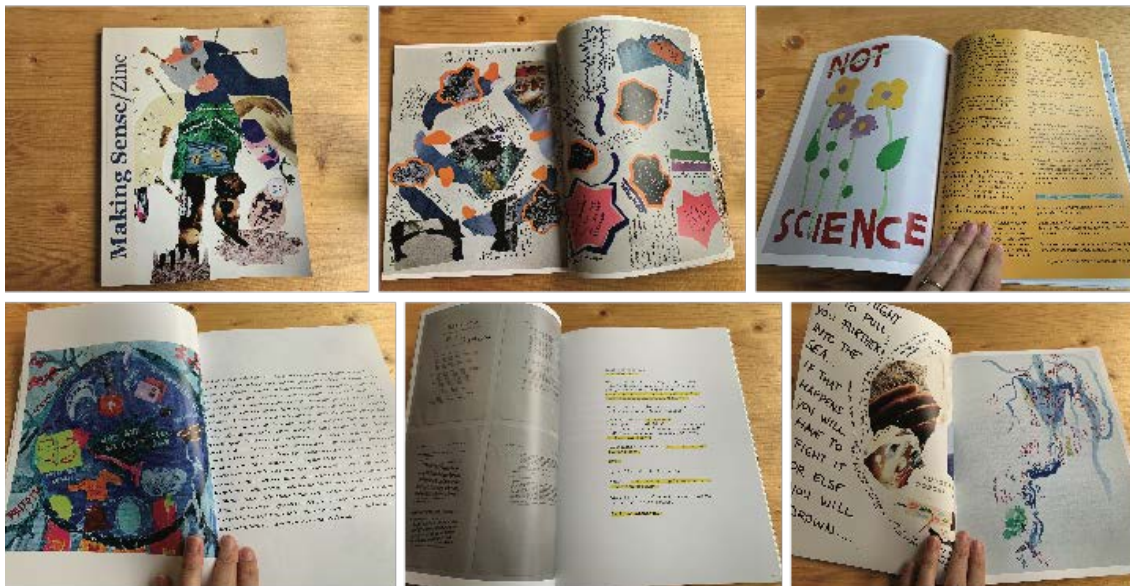


Figure 3. The second Sense/Zine is less focused on words.

3.2.3 Anecdotes

In order to help understand what the Zine does for me, I highlight here three instances that came up through the Zining process.

After I had finished my first Zine and had started my second, I went through the one I had printed. I dove into thinking through what I had produced, opening new questions and different thoughts. On one of the pages there is a sigh of relieve: *'I am a little less afraid... I realise I am learning... It is a process, and I will never be perfect, but through this, and through what I made I realise I am more open now to learn... To feel less alone in the process and more supported because I can see others who are thinking through similar issues as I do...'*

When I compare the first zine with the second, there is a big difference. In the first one (see Figure 2) I am strongly holding on to the books that I read. Precisely quoting, typing out what each author says. The second (see Figure 3) has less of that (though still quite a bit), as I have been engaging in other formats of making sense and summarising such as collaging and painting. Thereby, I am moving away from the digital and more in the tangible space. This move has done a lot already in preparing the material, as through creating a collage for example, I already have to grasp meaning through that process.

I was writing a grant application after printing the first Zine. It was a development grant and I was struggling to find my footing in accordance with the call. The call was framed from a modernist development perspective and I felt that I could not write in that same way, let alone 'perform' the research as such. Then I went through the Zine and by looking through it, I felt supported in feeling uncomfortable and decided to rather than adhere to how the call was written, take the values that I had been working through in the Zine and before and stay true to those. I do not know whether I was successful in obtaining funding, but this situation showed me, concretely, the backpack I have been developing for myself.

3.2.4 'Analysis'

When I submitted the abstract for this paper in April, I had just finished my first Sense/Zine. Now, while writing this paper, I finished my second and started my third. In between, talking about it and through actually using it, I am starting to understand better what it is that I have been developing for myself. But it is a method that seems to be transforming with me, so I do not fully understand yet what it will be in time. It started for me as a way to find grounding. And I realised after the first that it had worked for me in that way, I had gotten less afraid, less overwhelmed to become open towards working on decolonising my understandings of myself and my practice. The zines have become a safe space for me, where it is okay to make mistakes. To make them and then have the opportunity to come back to them - rethink through them. The Zines do not have to be perfect both in content and in looks, but rather something I will enjoy working through, again and again.

The process takes place in parallel with my practice, which means that it is always there and always growing with me. In the process there are different moments to revisit what I have already thought through. In this way it opens up for diffraction – by leaving space open (literally in the formatting), I invite for going in dialogue again and again with the zine. Building on what is already there through the processes of Zining, interacting with others and reading new work. I keep it open in that I do not have to make conclusions but rather open up for new questions and explorations.

Making a Zine takes quite some time, especially creating the content, and I can, for example, only attend to a certain number of readings. Maybe this is in line with Freire's (2001) point that if we truly want to engage with our readings and establish a relationship, we can only engage in a few.

I feel that through finding different formats for content making I enable myself to lose control. With less words, more making, I lose control a bit. I think that this is important in order to truly engage in decolonial journeys. I started working more intuitively, less in my reasoning brain space, but more in my emotional heart space. This shift shows a change in me, embracing my own making skills in order to express my thinking. I was afraid I would forget if I did not use the exact words I was reading or hearing. I was not confident that I understood well enough. But, understanding comes also with connecting to the heart, in line with *Sentipensar*.

4. Discussion & Conclusion

In this paper I introduced two tools I use in order to become conscious of my positionality and to attempt to decolonising myself and my practice. I am aware of my very privileged position to have the time and space to dive into my own practice to the extent I do. I am also aware that this time is not available for everyone. In sharing this, however, I do not necessarily aim for others to use Sensing/Zining or Graphical Peeling specifically, but rather emphasise the importance to allow for personal, creative, designerly journeys of sense-making, decolonisation and as Haraway (2016) phrases it: 'staying with the trouble', in the discourse of design research. Most often we hide these parts of our practices, but I think it is important to open up to each other and to support everyone's personal journeys (in line with the point that Akama and Light make (2018)). Whatever form of practicing *conscientização* fits in with the realities we face, I believe we should try to share, for others to get inspiration from, to sensitise how we can understand *conscientização* in our own realities, but also to realise that we are trying to do the work and that we are not alone.

I believe it is important that the tools connect not just to my work life, but to my whole being. They question who I am or want to be as a person, in my profession but also in my life in general. We cannot disconnect who we are as designers from who we are as people. In the zines, my private life, private conversations merge with my professional work. Both are needed in my personal journey. I am not a Graphical Designer, yet I use graphic methods to make sense. I think this works for me, because I am not fully fluent, and thus have space to make errors or where I am not satisfied with the end result. This I can then revisit, thereby inviting for reworking it naturally. I am also still curious about what I can make. Graphical Design in this sense gives me the opportunity to explore further and stay motivated.

D'Amico-Samuels (2010) has stated that if we reflect in isolation, we end up in a cycle, realising our position, but not truly transforming. I acknowledge that in the tools I have shaped, the reflections are indeed very personal and that in that way my reflective space has a risk to just acknowledge my position without critically engaging with it and transforming it. However, for me this space is just one of my reflective spaces. Through the engagements I am part of, I do also take part in communal reflective spaces, where my understandings are challenged, where I get new perspectives. But then I need a space to ground again. To re-listen to what I've heard and to think things through. Maybe this is a skill that I yet need to develop - to process in conversation. But for me, the Sense/Zining and the Graphical Peeling, in the editing, the planning, the content making, the summarising, the reading, the reacting is a space that forces me to stay with the trouble for just a bit longer. Maybe in order to support our personal journeys to decolonise ourselves, we need a reflective ecology, in which some spaces are individual, and others are with others. We will need sparring partners in order to tip ourselves out of our comfort zone from time to time, but also a space to catch our breaths again. Maybe in such an ecology we need the individual space to be something that we enjoy doing. To keep us going.

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About the Author:

Lizette Reitsma is a design researcher who has been working with different (indigenous) communities, in Malaysia, the Netherlands, South Africa, Sweden, Scotland, and with questions about how to invite for dialogue between ontologies. Her focus in her research is on sustainability, cultural heritage preservation and social change. Making sense through making takes a central role in her practice through research through design. Both as a mediating role between her and the people she works with and in the analytical, individual phases of her work. In her work and understanding of it, she has to look critical at who she is, how she relates and her positionality. This is important especially since she is a designer who grew up in the Netherlands (a country with a colonising past), and has been rooted and educated within the modernist hegemony. So, the sense-making and tool shaping as presented here, is besides an analytical, also a decolonising journey.

White Skin, Brown Soil: A white woman's search for identity, culture, and belonging on stolen lands

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This research responds to the eventual (and very necessary) process of dismantling and unlearning the white Australian culture in favour of pluriversal, decolonial, and relational ecologies. However, the ways in which we go about collectively re-imagining this future is unclear. This research documents my own personal journey to explore and integrate my Celtic ancestry so that it can be a source of wisdom and inspiration for assisting myself and other white people for co-creating regenerative and pluralistic futures alongside indigenous and culturally diverse migrants on the lands of so-called Australia. This study is contextualised through a brief reflection on an abstracted chronology leading up to and including the colonisation of Australia and the subsequent creation of a modern 'White' Australian monoculture, made possible through the assimilation of culturally diverse migrants, and Aboriginal and Torres Strait Islanders. This research looks for opportunities which moves beyond linear notions of time and colonial notions of place and geographical boundaries. It does this by highlighting the learnings and knowledge that can be found in the form of ancient seasonal calendars which reflect the rhythms and cycles of life, and the way in which ancient rituals and practices framed through a bioregional lens can help foster rootedness and authentic connection to place. Ultimately, this study provides a different view on decoloniality which not only offers the perspective of someone descended from the 'oppressor' class but seeks to establish connections with people from different cultures and thus furthering the relationship we have as humankind.

Decoloniality; Eco-spirituality; Celtic culture; Bioregionalism

1. Introduction

Many of the issues we face in Australian society are cultural. This research, written on the lands of the Turrbal and Yuggera People, responds to the eventual (and very necessary) process of dismantling the

dominant white¹ Australian monoculture in favour of decolonial, pluriversal, and relational ecologies to create sustainable and Just² futures. While this particular response is a personal journey which seeks to answer the question — who am I in this skin, on this land, and in this time? it forms part of a larger exploratory project which encourages settler Australians to reflect on who we are and want to be, what kind of world we want to live in, and our role in both imagining and creating that world. It could be considered a clarion call — but not one which demands loud action with shallow and short-lived outcomes, but rather a quieter, more meaningful and reflective process with longer-lived outcomes.

This study explores ancestry as a tool for this reflection and documents a personal journey to draw learnings and inspiration from Celtic knowledges and eco-spiritual practices to assist in re-imagining regenerative and pluralistic futures, alongside indigenous and culturally diverse migrants on the sacred lands which have come to be known as Australia. This is not a cue for venerating white ancestry or any other aspect of white racial identity beliefs, nor is it a mission to revive a culture and way of living which most white Australians no longer belong to or affiliate with. It acknowledges the liminality that many white people (myself included) find themselves in and invites us to mourn the loss and disconnection from our various ancestral lands so that we can thoughtfully, carefully, and respectfully create new ways of living and being which is connected to the lands of which we now reside.

This paper posits that the crises that we face are cultural problems with a spiritual solution. There is an opportunity for us to move beyond linear notions of time and colonial notions of place & geographical boundaries in order to locate self while cultivating our sense of identity, culture, and belonging in relation to the land and our local environment.

Note: Throughout this study I refer to aspects of First Nations knowledges and perspectives. While I endeavour to do so by referencing the words of Indigenous authors and scholars, I acknowledge that there are inherent complexities in sharing perspectives from a culture of which I do not belong to. I want to acknowledge and state that I am a non-First Nations person, writing from a non-First Nations perspective, and while I carry out this work as part of my own personal process of decolonising my worldview — I make no claims to be an expert in First Nations knowledge, and my intention in sharing these perspectives in relation to my work — is to do so both respectfully and purposefully.

2. Background

There are interesting parallels between the disconnection from the land due to modern day urbanization and that which occurred in the lead up to white settlement in Australia. During the Industrial Revolution in Britain during the 18th Century, many people moved from farms to overcrowded cities looking for work (Sydney Living Museums, 2014). As cities grew and the population increased, many were left with no work or money — creating a generation of ‘urban poor’. Many stole to survive. During this time, prisons were full, America refused to accept any more convicts from England, and a third of the prisoners on hulks³ were dying of disease (Sydney Living Museums, 2014). From 1788 until 1868, criminals of low-grade offences were removed from their loved ones and their motherland, and sent to Australia, often on one-way tickets, knowing they would likely not be able to return (Sydney Living Museums, 2014). Most were from England and Wales, with a smaller percentage of Irish, and

¹ While there is no singular ‘white race’, in the context of this study, ‘white’ refers to fair-skinned people from British and Celtic ethnic backgrounds which were the countries responsible for initiating the colonisation process in Australia and does not refer to people from European backgrounds which are ethnically, culturally, and linguistically diverse.

² Morally and ethically fair.

³ Prison hulks are former shipping vessels which were modified for the detention of prisoners. In Britain they were often decommissioned navy vessels – repurposed to address the issue of overcrowded land-based prisons.

even less Scottish (National Museum Australia, 2021). Once they arrived, they were sentenced to hard labour in tough conditions — building the new colony. Today one in five Australians are a descendent of a convict (Williams, 2015). While Australian public sentiment over its convict history fluctuates between feelings of pride and shame — as highlighted by Merran Williams (2015), this aspect of Australian history illustrates the potential existence of unacknowledged and untreated shared ancestral trauma attributable to the violent dislocation from ancestral lands for many white Australians. This is likely a contributing factor of the current feelings of disconnection and yearning that so many feel. However, it is important here to recognise that any trauma that convicts experienced was relatively short-lived, with many offered (stolen) land and the opportunity to live as free settlers. Therefore, to focus only on the convict aspect of Australia's history would be to ignore the ongoing legacy of colonization of stolen land and the trauma inflicted on its First Nations people, with impacts including poor health & social outcomes, and reduced life expectancy (Wyld, 2019). Furthermore, solely focusing on the negative aspects of the convict experience disregards the inherent privileges of being white, and the way in which descendants of both settlers and convicts continue to benefit from Indigenous dispossession.

Today, while Australia is home to diaspora from 270 different ethnic groups, most Australians are descendants of European and British ancestry, while Indigenous Australians make up only 2.4% of the population (Australian Government, 2021). The ugly reality behind these statistics includes violent assimilation policies against Indigenous peoples and the Immigration Restriction Act (commonly referred to as the 'White Australia Policy'), which restricted immigration for non-white people using racist strategies — until it was abolished in 1973 (Johnstone, 2021). Despite the introduction of multicultural policies & the Racial Discrimination Act during the 1970's, and the introduction of the Native Title Act & Reconciliation initiatives during the 1990's, there is no denying the ongoing influence that colonial culture continues to have on our way of life.

3. Why does this matter?

We need to know how we got here in order to inform our understanding of where we are now, and how we might begin to approach our way of addressing the issues we are currently facing — of which there are many. Like many other parts of the world, Australia is experiencing the social and ecological impacts of increasing urbanization, the subsequent disconnection from our natural ecosystems, and the increasing 'othering' of both human and non-human life, all while grappling with the existential threat of climate change. In the 233 years that white people have been on this continent, we have colonized the landscape and drastically impacted on the natural environment (Australian Bureau of Statistics, 2010). According to the Australian Bureau of Statistics (2010), Australia has experienced the largest documented decline in biodiversity of any continent over the past 200 years, and the list of threatened species continues to grow. While many countries have made significant commitments towards targets to limit global temperature rise of 1.5 degrees Celsius over preindustrial levels under the Paris Agreement, Australia has been accused of inaction on climate change in various reports. Australia was ranked last for climate action on the 2030 agenda for Sustainable Development Goals (SDGs) out of 193 United Nations Member Countries in the latest Sustainable Development Report released in June 2021 (Sachs et al., 2021). It was also ranked second last in Climate Change Performance Index in 2020 (J. Burck, 2020).

While our lack of action on a governmental level may indicate a level of national apathy in relation to these alarming statistics, there are insights into feelings of personal grief about the situation which indicate the implications of climate change for our individual emotional and spiritual wellbeing. This feeling, termed 'ecological grief', is described in a Nature Climate Change article as "the grief felt in relation to experienced or anticipated ecological losses, including the loss of species, ecosystems, and

meaningful landscapes due to acute or chronic environmental change” (Cunsolo & Ellis, 2018a), and is related to feelings of homesickness while still in place, and also a loss of self-identity in relation to environmental changes (Cunsolo & Ellis, 2018b). With all of this in mind, it is clear there is an urgent need for change if we are going to address the social and ecological challenges we face in this country. While at first climate change might seem like an environmental issue, there is no doubt that in Australia — climate change is a cultural issue which requires a response which is appropriate to this perspective.

While tackling these issues from a cultural perspective may not feel like the most direct or efficient approach given the amount of time required for cultural change to occur, there are practices that we as individuals can do to decolonize our minds and our lives. In keeping with knowing how we got here, I argue that decolonization begins with each individual learning about their own ancestry and cultural identity in order to understand how they view the world. While the learning process of my own ancestral journey from the various Celtic lands is still unfolding, my own journey started on the lands of the Mandingalbay Yidinji People of Far North Queensland, in the rainforest and coastal areas outside of Cairns. However, since moving to the urban jungle of Meanjin (Brisbane) in Southeast Queensland many years ago, I have felt increasingly disconnected from the land. Further to that, I am also lacking a sense of culture and belonging of which I can be proud of. I believe that my personal experience is not an individual one, but one which is increasingly and collectively felt across Australia, where I have witnessed a growing desire amongst people to rediscover a part of themselves, connect with nature, re-wild, and heal country. This leads me to explore how we as non-indigenous people might begin to do this as part of a more deliberate process.

4. Relating to Nature

The challenge of addressing these deeply complex issues, begins with asking *how*. How do we, as white people living on stolen land, begin to reconnect with nature, re-wild ourselves, and heal country? The way in which we, as a society (in Australia), have acted towards our natural environment is informed by our philosophical, ideological, and cultural perspectives, which ultimately view nature as separate from ourselves and as a resource to be extracted and used for our own benefit. These perspectives are informed by our ethics and values that are taught through our education system, enacted through our systems of governance, and underpinned by our economy. We interpret nature as something we can visit, something we can contain or manage, be entertained by, fuelled by, and even feared (i.e., biophobia), but always as something outside of ourselves.

This perceived separateness from nature can be interpreted from many different perspectives, including language — an intrinsic aspect of the expression of culture. “Few, if any, nonwestern languages have the strong opposition between “nature” and “humans” that English has” (E.N. Anderson, 2013). Instead, many of them are filled with rich words which describe our oneness with nature. One example is *Kachou Fuugetsu* — a Japanese concept which refers to the way in which one discovers themselves while experiencing nature, a very appropriate word for the purpose of this study. With much of the Indigenous Celtic languages lost, it is hard to say whether there used to be words which better described our innate oneness with what we now call ‘nature’. This journey is as much about an embodied remembrance as it is a reconnection, which becomes even more challenging when we are living on a land very different from the one our ancestors came from.

While some settler Australians might argue that they appreciate and respect these sacred landscapes, ultimately, the “land means different things to Aboriginal and non-indigenous people” (Korff, 2016). Our culture and identities are not entangled with these landscapes in the same way that Indigenous cultural identities are. While non-Indigenous Australians have spent merely 233 years on this continent,

Indigenous people have been nurturing physical, social, cultural, and spiritual connection with country for over 60,000 years. Their story is in the land (Moreton-Robinson, 2020). This deep interconnectedness with the land and the concept of locality is integral to Indigenous sense of belonging. This is described by Kombumerri person and Professor of Aboriginal philosophy Mary Graham, who explains that “in European culture, Descartes said “I think, therefore I am”. If there were an Aboriginal equivalent, it would be: “I am located, therefore I am” “ (2019, p. 4). Graham further describes the way in which the land becomes an integral part of their identity and character:

Identity and character come from the land itself, the shape and the form of it; whether it is desert, rainforest, saltwater, freshwater, mountains, or plains, every part of the land has its own character. So the character of the land is the basis of the character of the people, not just in terms of our relationist ethos, but in the actual character of the people. (Graham, 2019, p. 4)

The Indigenous relationship with the land is about more than a sense of identity. It is also a system of governance which enabled Aboriginal and Torres Strait Islander people to sustain a regenerative and relational way of life on this continent for over 65,000 years. The First Nations system of governance is guided by an earth-centred, ‘Relationalist ethos’ which is characterised by a law of obligation and ethics of care for the natural world (Graham, 2019). This is otherwise described by Nyikina Warrwa (Indigenous Australian) woman Dr Anne Poelina and her colleagues as ‘First Laws’ which are laws based on the laws of the natural world and an understanding of the dependence of all life and existence on following these natural First Laws (2020).

Now more than ever, we need to find new ways of relating to nature. As stated by Heather Alberro—an expert in critical posthuman theory and radical environment movements, we must view humanity and nature as one in order to fix the climate crises (2019). But how are we as white people to do that when we are not connected to place? How do we get ‘located’? It is my hope that ancient Celtic culture may offer white people living in Australia the tools and resources to reconnect with their culturally and spiritually rich past, in order to better connect with themselves, and develop connection to their present locations in authentic and meaningful ways.

5. Earth-centred Spirituality

Our Celtic ancestry is rich with earth-based spirituality which may be of value for deepening our relationship with nature and each other. There is no doubt that our connection to and relationship with nature has been informed our *British* colonial ancestry and the western civilisation model, which not only views nature as separate from us, but as a resource to be extracted. Given our past behaviors, it would be easy to assume that white people are devoid of any earth-centred spirituality, especially from the perspective of First Nations people who have had to bear the brunt of our anthropocentric⁴ way of living. As highlighted by Graham:

Old Aboriginal people have often stated that non-Aboriginal people in Australia “have no Dreaming”, that is, they have no collective spiritual identity, and no true understanding of having a correct or “proper” relationship with land, or Earth ethic. Many non-Aboriginal Australians recognise this themselves and are working, planning and creating, quite often in dialogue with Aboriginal people, to change this situation. (Graham, 2019, p. 6)

One of the ways in which I am going about this myself, is through ancestral remembering. Afterall, it is inherent to all of humankind to care about the earth. While many of us have wandered far from our roots, both physically and metaphorically, there is a rich history of nature-based culture to rediscover.

⁴ Human-centred

Many of the white settlers living in Australia are descendants of Indigenous Celtic tribes which lived across the lands now known as England, Scotland, Wales, and Ireland—although they had different names for their territories during that time and spoke very different languages. Although, around the 4th Century, these Celtic tribes experienced a significant loss of culture following the Christianization and invasion of the Romans and the Anglo Saxons from Germany, I believe that there is still much to be learned from our ancestors for remembering who we are and imagining our futures, particularly in relation to our earth-based spirituality. This is reflected by Noel Preston— a Professor of ethics, governance and law, who believes that “one’s spirituality helps shape answers to the questions which are fundamental to our species” (2019, p. 36) — the same types of questions I have been asking myself around who I am and who I want to be, and my role in both imagining and creating the type of world that I want to live in.

Going beyond my own experiences, there are potential benefits of reconnecting with our earth-based spirituality for all Australian society. In attempting to transform the monoculture of present with pluriversal futures, perhaps there are opportunities for earth-centred spirituality to serve as tools for cross-cultural exchange with Aboriginal people and their earth-centred ethics — a thought inspired by Preston (2019) who considers eco-spirituality as a companion to earth-centred ethics — the cornerstone of First Nations governance. One example of this is the way in which Indigenous people view country as a living entity with a consciousness, and a will toward life, a concept which is not entirely dissimilar to Celtic Animism — a form of Earth-based spirituality which worships nature and considers all natural phenomena to be sentient and worthy of respect.

As previously stated, this is not a cue for venerating white ancestry, but an invitation to thoughtfully and carefully connect with these lands in ways which do not attempt to appropriate Indigenous embodied knowledges which we are not part of, but rather — in ways which are based on our own ancestral knowledge. While we can learn from the inherent wisdom of Indigenous knowledge and perspectives, it is important to ensure that we are not participating in acts which appropriate Indigenous culture for our own benefit. Afterall, there is a troubling history of exploitation, misuse, and appropriation of First Nations art, culture, heritage, and intellectual property within various contexts, which more recently includes the non-Indigenous spiritualisation of Indigenous culture by the New Age healing and health industry (Hurley, 2017).

6. Getting ‘Located’

One of the ways in which white Australians can begin to get ‘located’, is by decolonising our relationship to time and place, and we need to do this in the places where we primarily live — cities. Despite the impact that urbanization has had on our relationship to the natural world, over 80 per cent of Australians live in urban areas (Dunn, 2021). While initially destructive, our cities are arguably a more sustainable option than continual urban sprawl (Florida, 2012). Instead of everyone moving to the country to live subsistence lifestyles, we need to find ways to make our cities more sustainable for both human and non-human life, and to develop a deeper awareness and connection with the landscapes, plants, and animals which already occupy these urban environments. This was a concept explored by Claire Dunn (2021) in *Rewilding the Urban Soul*, which documents the authors search for wild in the city of Melbourne, Australia. After living off-grid for a year as part of a wilderness and survival program which she documented in her book *My Year Without Matches*, Dunn sought human connection and a desire to enjoy the benefits of the city — comfort, convenience, community, and opportunity, without losing her new sense of self and the connection she had formed with the natural world during her year in the bush (Dunn, 2021). In this book, Dunn demonstrates ways that we can all learn how to rewild our

souls and belong to our cities — many of which I believe are connected to reconceptualising our relationship to time and place.

6.1. Time

We can contemplate our understanding of time by looking at seasonal calendars, both ancient and current, which not only reflect the rhythms and cycles of life, but serve as a centrepiece for agriculture, social organisation, rituals, and seasonal celebrations. As with many of the concepts discussed so far, there are distinct differences between the perception of time between the British colonial lens, the Indigenous lens, and I would also argue — the Celtic Lens. The British observe very standardised and universal perceptions of seasons and a view of time which is linear and sequential, and while the Gregorian Calendar is a solar based calendar, it is entirely abstracted from the less systematic occurrences of natural phenomena (which as we know from climate change — are always shifting). The Celtic calendar similarly observes four main seasons based on equally spaced dates including the longest and shortest days (solstices), the dates of equal hours of day and night (equinoxes) and the midpoints between them. However, unlike the British, the ancient Celtic cultures had a greater understanding of the cyclic notions of time, observed by rituals and practices which celebrated the changing seasons including—Yule, Imbolc, Ostara, Beltane, Litha, Lughnasadh, Mabon, and Samhain. Unfortunately, many of these practices have been eroded overtime with other parts of Celtic culture, and today very few people of Celtic descent living in Australia still recognise some of these seasonal festivals.

When the British colonised Australia they brought their systems of time with them, reversing the calendar for the southern hemisphere, and demonstrating a complete lack of knowledge or understanding of the climate and seasons of this land, yet alone the embodied knowledge and seasonal calendars of First Nations peoples. One of the main factors which is recognised by First Nations peoples and ignored by colonisers is that of Australia's vast land mass. This can be recognised in the way in which the western notion of 'four seasons' fails to adequately describe the significantly different seasonal changes which occur across this vast continent. Conversely, the Indigenous seasonal calendars — which each Indigenous nation develops for their own specific region, depicts anywhere from two-to-eight different seasons which are unique to place. These seasons are not only based on cyclic changes in weather, but also the patterns of animals and plants, and are connected to their cultural practices and beliefs. The names for these seasons are also unique and reflect the nuanced natural occurrences of that specific place and time. An example of this is the seasonal calendar produced by the Larrakia language group from the Darwin region, which is divided into seven main seasons including *Damibila* ("the Barramundi and Bushfruit Time"), *Dinidjanggama* ("the Heavy Dew Time"), and *Mayilema* ("the Magpie Good Egg & Knock 'em down Season") (Gulumoerrgin (Larrakia) language group, 2021). From this example and the many other Indigenous seasonal calendars, First Nations people demonstrate that Country (or place) can be a calendar. This is expressed in this poem by Aboriginal author and member of the Palyku people—Ambelin Kwaymullina (2020, pp. 12-13) who also highlights the contrasting perspectives of time between First Nations and colonisers:

Linear time

is something that Settlers brought here

a version of time

that creates distance

[...]

In Indigenous systems

time is not linear

It moves in cycles

It exists in space

in Country

The challenge for us all now is to develop a perspective of time which is reflective of the natural cycles and seasons in the places in which we live. Doing so will enable us to develop contextually relevant seasonal calendars for the purposes of deepening our awareness and knowledge of place and developing new cultural practices which are derived out of connection with that place. This goes beyond indigenising⁵ global celebrations such as Easter (originally the *Eostre* Spring Equinox celebration) for the Australian context — which have already been distorted from commercialisation and Christianisation. It requires the development of entirely new seasonal calendars which are born out of direct engagement and observation of the locale. This is not a new idea. In her book *Australian Druidry*, Julie Brett (2017) discusses the difficulties in following a nature-based tradition in an environment “very different from the place the tradition was created”. As a way of addressing this, Brett (2017) outlines her *own* seasonal calendar and the nature festivals and rituals she performs to connect to the sacred landscapes of Australia. It is Brett’s advocacy for people to create their own spiritual connection and ceremonies in response to their own unique location which has been most influential in the design of this study.

6.2. Place

As stated, the development of a seasonal calendar is heavily dependent on a deep understanding of a place. The main issue with this approach, is that the western, colonial understanding of place is entirely abstracted from nature, and based on divisions of land and systems of power and ownership of land, or as in most cases the violent dispossession of land from Indigenous peoples. The concept of ownership of land is vastly different from the Indigenous systems of stewardship or custodianship and the ethics of care or First Laws as previously discussed.

The colonial notion of place is no more evident than in the map of Australia where the division of land between 1788 to 1911 has consisted of ever-shifting political boundary lines. This is once again vastly different from the indigenous map of Australia developed by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), which in addition to representing the hundreds of language or nation groups across the Australian continent, also illustrates the important cultural Songlines which serve as a form of connection across the continent and way of mapping Country. Unlike the Western method of mapping, Songlines are not made up of straight linear lines, but instead—they trace astronomy and geographical elements from ancient stories which are passed on through elders to future generations (Glynn-McDonald, 2021).

Unsurprisingly, the biogeographic regionalization (i.e., bioregional map) of Australia, based on ecosystem analysis more closely resembles the map of Indigenous Songlines than the more commonly known political map which shows the state and national boundaries. The bioregional map, formally known as the Interim Biogeographic Regionalisation for Australia (or IBRA) recognises 89 bioregions and 419 subregions and is updated periodically based on new data derived out of analysis of place (Department of Agriculture Water and the Environment, 2021). I believe this map brings non-Indigenous people closer towards developing seasonal calendars which are based upon a decolonial perspective of place.

⁵ Refers to the act of making something belong to place or native to place.

7. Locating Self through Ritual & Eco-spiritual Practice

Dismantling our decolonial understanding of pace and time in addition to drawing upon our Celtic ancestry in the form of eco-spiritual practices and rituals, has the potential to deepen our understanding of self in relation to the broader ecology of life. Rituals and eco-spiritual practices take many shapes and forms and can be carried out as part of a solo endeavour or group activity and are typically reflective in nature. One of the easiest examples of an eco-spiritual ritual for fostering reverence, reconnection, and encounter is that of a 'sit spot' (or the preferably esoteric term 'magic spot') (Brindal, 2019). A 'sit spot', as described by Emma Brindal (2019), founder of EarthWise Education, is a special place in nature where one can sit and observe, and return to over time, and includes activities which can be conducted through the practice of sitting alone for periods of time in nature — including mapping, recording bird calls/learning bird language, journaling, or sketching plants. The sit spot practice was also a fundamental practice explored by Clair Dunn in her book on Rewilding the Urban Soul.

Beyond providing greater awareness of and connection with nature, these types of rituals and eco-spiritual practices enable us to find ourselves or '*locate self*', and the means through which we might begin to move from our existing individualistic, anthropocentric perspectives towards relational, eco-centric perspectives:

Spirituality refers to the human quest to live life with a meaning and purpose that is linked to a sense of transcendence; that is, spirituality bespeaks a consciousness that we are part of a reality beyond ourselves. (Preston, 2019, p. 36).

Preston's perspective helps to understand the way in which eco-spiritual rituals or as he calls it 'nurturing practices' may enable us to develop a stronger ethic of care and responsibility for the natural world as an extension of ourselves – explaining that these practices enable us to “pay attention to where we are, to tend our garden and care for our neighbourhood” (Preston, 2014, pp. 52-54; 2019). I believe this highlights the importance of these practices for bringing myself, and other people who can relate to my experiences, closer towards finding the sense of identity, culture, and belonging which I have been searching for. While these practices may offer significant benefits related to forming a greater sense of self and personal wellness, there is undoubtedly potential for broader social and cultural change when these experiences are shared or even collectively practiced. In similar ways that the ancient seasonal calendars supported our Celtic ancestors to come together to celebrate the seasons and the cycles of life and be reminded of the bigger picture, there are opportunities for newly formed seasonal calendars to become the centrepiece for communal activities which bring us closer together to co-create thriving, pluriversal, and Just futures for all.

8. Conclusion

This study provides a different view on decoloniality which argues in favour of learning from our ancestral Celtic culture to foster regenerative, relational, pluriversal, and Just futures for human and more-than human life. It argues that by exploring our own ancestries and shared histories we can come to develop a deeper insight into how we have developed as an Australian society and the type of worldviews which have contributed to the current social and ecological challenges that we face. Beyond our troubling recent history, there are opportunities to draw inspiration from our ancient Celtic ancestors who celebrated the seasons and worshipped the natural world, and for this knowledge to foster cross-cultural connections and further the relationships we have as humankind.

By spending time with nature, whether that be through a 'sit spot' or any other eco-spiritual practice or ritual, we can begin to develop our own seasonal calendars which reflect the places where we live and create new cultural practices which are derived out of localised, cyclic, and decolonial perspectives of

time and place. While the use of eco-spiritual practices and rituals are an opportunity to develop a stronger sense of self and connection with others, it also provides an opportunity for personal transcendence and a deeper awareness of our interconnectedness with the natural world and our ethical responsibility to care for it as an extension of ourselves.

Although this paper has highlighted my own approach towards answering some of the deeper questions around identity, culture, and belonging, I hope that it is also helpful for guiding some broader reflection amongst settler Australians who are seeking similar insights. My greatest hope is that this paper encourages people to find ways to connect to self and the world around them in ways which are meaningful to them.

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About the Author:

Dr Sarah Johnstone (She/Her) is an emerging design strategist and educator at Queensland University of Technology (QUT). She specialises in 'designing for diversity' and co-design processes, and has experience in designing tangible, accessible, and lo-fi creative/arts-based community and stakeholder engagement tools for people with varying skill sets, perspectives, and abilities. Sarah has applied this approach to the design of interactive needs assessment activities for youth work settings, for facilitating participant content creation for citizen engagement on urban development processes, and more recently—in several design research projects within the healthcare sector. In her own PhD project, she designed and tested creative methods for engaging with culturally and linguistically diverse women with a focus on fostering an ecology of care based on an inclusive, pluralistic, relational, and eco-centric approach to delivering social services. This paper marks the beginning of a personal journey focused on exploring her personal and collective role in cultures which impact on human and non-human life forms who are marginalised and exploited within the patriarchal, colonial, capitalist, and anthropocentric global paradigm. In this journey, she hopes to develop rituals and practices which enable herself and others of colonial descent to develop a stronger relationship with our ancestry, with the local land and all its inhabitants, and ourselves.

Staying Diasporic: Centering migrant and diasporic ways of being in design

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Migration and diaspora are phenomena that are continuously shaping the world, and that are caused and informed by colonial structures. The communities in diaspora are held together by particular ways of imagining and relating with the homeland, the host culture, and themselves, touching back into the local. In the experience of migrating and becoming part of a diaspora, our identities shift, as we enter a state of tension between total assimilation and resistance, questioning our national hegemonic values and ways of being. As a designer with migrated roots, I would like to share some experiences and thoughts about working in codesign processes with migrant communities: How do we matter our worlds from a diasporic situatedness, and what does this mean in terms of encouraging decolonial processes in design? Which strategies might help us challenging our assumptions as designers? Ultimately, I want to continue conversations about the role of design into materialising dissent and contestation towards the hegemonic systems, centering migrant and diasporic ways of being. How might these reflections inspire us for future practices in design?

migration and diaspora; decolonial design; social design; codesign

Transcription of presentation

1.1. Introduction

My name is Yénika Castillo and I am a Mexican designer located currently in Malmö, Sweden, and under some seasons in Fredrikstad, Norway. Thank you to everyone that makes Pivot Conference possible, for opening this space for important conversations.

Before starting, I would like to acknowledge the persons that have co-created the work from which I share reflections about designing from a diasporic situatedness. They come from Afghanistan, Mexico, Peru, Chile, Colombia, Costa Rica and Guatemala, who live in mostly in Sweden, but also in other geographies. To them, thank you, for sharing your *sentipensares* about your migrant experiences.

I would also like to recognise the places that hold me, both my current location and my home town:

Malmö, my current location, is Sweden's third biggest city and the city with the highest rate of immigration in the country: Out of almost 320,000 inhabitants, 35% are immigrants that represent 179 nationalities (SCB, 2021). Malmö itself was, for centuries, Denmark's second largest city, only being part of Sweden for the last 246 years. It went to be in the center of a country to be in the margins of another country.

My own home town is a city in central Mexico called Pachuca. The oldest vestiges of human settlements are from the Otomi, 9000 years ago, an indigenous people that still inhabit areas of Central Mexico. They were displaced from my home town region by the Mexica Empire, long before the Spanish conquest. Pachuca, during the colonial period, became one of the richest mining districts in the New Spain. My ancestors are most likely of Otomi, Nahua/Mexica, Spanish and British origin, amongst other origins that unfortunately I don't know. Maybe some of them were oppressed, enslaved, raped. Maybe some others oppressed, enslaved, raped.

We cannot ignore diasporic identities in an environment when almost 4 of us out of 10 persons are from another country. And from my own positionality, I cannot ignore the semi-nomadic roots of my origin and the colliding identitarian traces of cultures and heritages within myself. That, what the hegemonic systems have thought of as unrooted and unsettled, most likely implies a different relation with land, as a place with no borders that we all belong to.

This is a collection of reflections about designing from and with a diasporic situatedness. These thoughts have come from mainly two projects of interaction design regarding migration and diaspora, as well from a personal journey of migration. My wish is to share and bounce thoughts and impressions of identity and belonging, challenging structures from this position. What does it mean for our work as designers, and what can it inspire us for future practices?

1.2 Video collage + narration

I'm learning what makes this place home.

All the [new] feelings I can feel when I'm away from home.

Where is this path taking me?

I brought with me the best I could give.

Some things I try to recreate.

What new things become, out of which old things?

You recognise me

you ask me

I follow you

You show me the way

I change angles

I have many ways of landing.

We do together. We listen.

We enjoy each other's company.

Your perspective and mine are valid.

We feel at home.

What new and old ideas are shaping our thoughts?

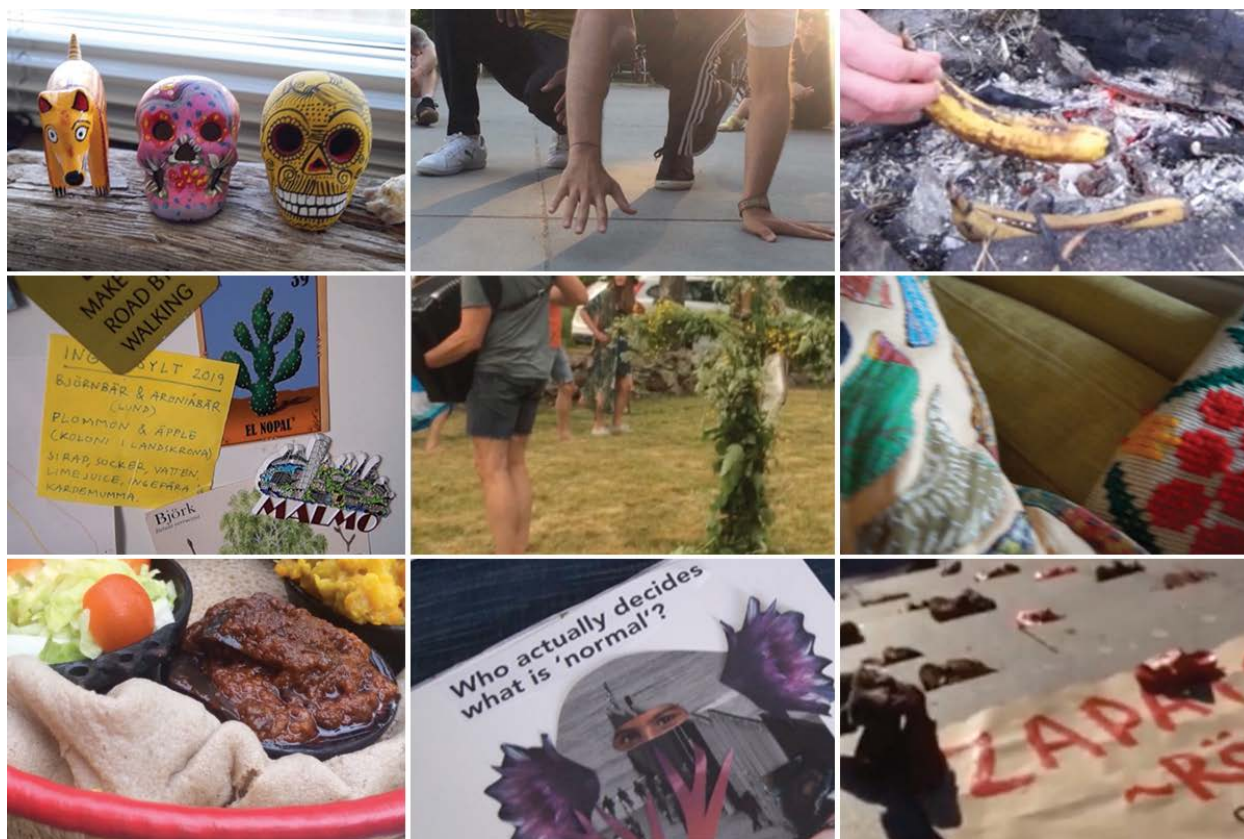


Figure 1: Some stills from the video collage + narration presented at the Pivot Conference 2021. Source: Yénika Castillo Muñoz.

I think and feel in many languages.

I make. Observe. Re-make. We respond.

I am reminded of my privilege.

I want to share it.

Can my roots grow endlessly?

What is my own name now?

Are you a lagom latina?

Are you staying here? (for how long?)

A free choice can tie me up here forever.

Being far lets me be who I want.

This is *also* a generous land.

I'm naming things around me

What do your summers taste like?

What takes you back to your childhood?

Which sounds, smells and colors make it home for you?

Our mothers cooked the same meals.

How do I join these fragments?

With which threads do we weave together?

Stop the career of belonging.

All these small things anchor me.

I'm still searching for what brought me here.

I want a safe space where my past, present and future can be together.

Some things have become important after so long.

I still need to talk about this.

We share to all of our affects.

Your country and mine hurt the same.

We are bridges.

1.3 Insights

Migration and diaspora are phenomena that are caused and informed by colonial structures (Ahmed et al, 2003).

While *migration* refers to a present and constant movement of persons, *diaspora* points out at the relationality towards a current location, a homeland, and a community over time. Anthropologist Paul Basu (2007) describes *Diasporic situatedness* as the shared imaginations of a group's culture and background, an intangible asset that holds the diasporas together. He adds that, in the era of cyberspace, the diasporic communities have more tools and resources to keep the memories of the homeland alive.

I argue further that this imagination is not homogeneous or static: It is dynamic, intersectional, highly subjective, plural and generational. We enter a state of tension between total assimilation and resistance, questioning our national hegemonic values and ways of being. Some cultural practices in diaspora might even come from a place of resistance. What does it mean to be a Latin American, Mexican-American, Afghan-Swedish, and so forth?

Memories, values, ideologies and acquired experiences are passing back and forth in this cycle of virtual to physical creation, touching back on the materiality around us, and shaping the relations we create, thus contributing to the local culture. In pandemic times, the digital tools are continuously inviting us to create and socialise in this virtual space. A decolonial analysis of this process is more necessary than ever. Here, there is a potential to co-create the tools we need for deepening into our identitarian threads, and reclaiming them in order to question the system that makes us migrate in the first place, and that reinforces otherness with xenophobic rhetorics and structures.

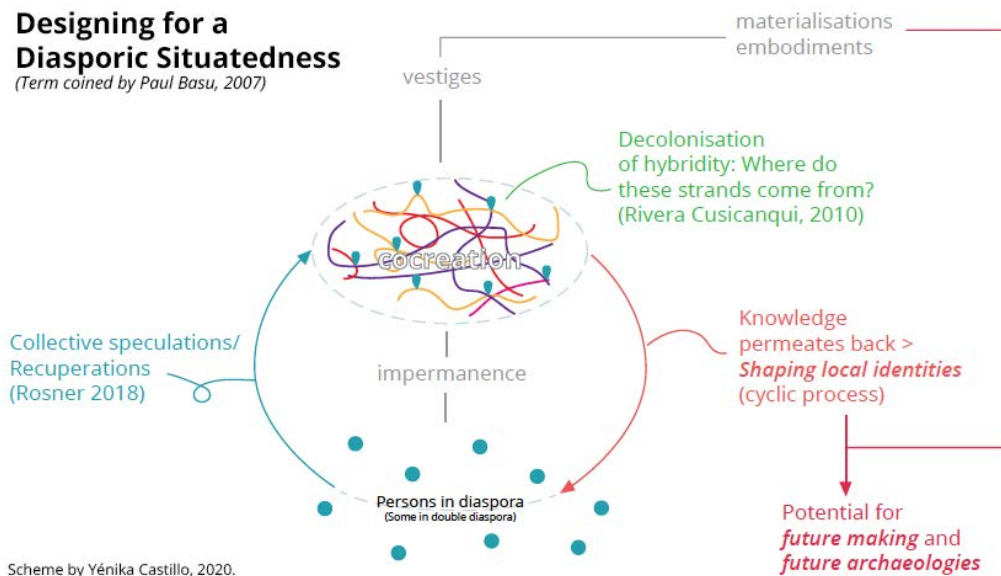


Figure 2: Extended diagram "Designing for a Diasporic Situatedness". Source: Yénika Castillo Muñoz.

For working in this space, we need to embrace the complexity of our personal stories entangled in oppressive systems, that can evoke memories, emotions, conflicts and conditions beyond our power to solve, but that are as much part of the process and outcomes. This means that, as designers, we need to consider this an essential work of care, being aware of our own background and position, in relation to our participants, to equalize the interactions as much as possible, if the collective creation really intends to challenge normative narratives, for dissent and discussion (Lamadrid, 2013). Strategies like **vulnerability, discomfort, reciprocity and listening**, are essential into building codesign methods.

Centering diasporic ways of being in the world can be seen as a form of *reparation*, and I would add that *staying diasporic* can be considered a well-informed strategy for autonomy and radical interdependence: Keeping a critical position, informing ourselves and participating in cultural, solidarity and activist practices in diaspora, maintaining networks of support, keeping memory and identity alive.

As Mahmoud Kershavarz (2016) points out, Design has for long complied to power by materialising bordering structures. Here, a question is very pertinent: As designers, do we want to design identities, or do we want to design conditions for identities to coexist and thrive? What can we learn from the way communities in diaspora and migrants respond to oppressive systems?

Reflections out of Pivot Conference

The Pivot Conference 2021 was a very generous space in which these ideas could touch the ground and expand, with the contributions of the panelists and the questions from the attendants. In this section, I would like to elaborate further on some of the questions that I personally feel that enriched this presentation.

2.1 Working with positionality

A common thread in the panel was that we made an emphasis in the imminent work in one-self's positionality. This work is not easy because it implies a deep self reflection in two directions:

1. An external direction, that makes us look at Design as a discipline engrained and in compliance with an oppressive structure of power (Kershavarz, 2016)
2. An internal direction, in which we as individuals need to acknowledge and identify the ways that we personally have benefitted from that structure, because of our own background (racial, ethnic, socioeconomic, geopolitic), and exerted power from that position as designers.

This is, for many, including myself, a painful process that forces us to revise how those oppressions have crossed and left marks in our bodies, our family history, our communities, the inequalities of our countries. Personally, I believe this awareness comes from many other life experiences outside the academia, and that the challenge is to combine the knowledges in ways that keep these questions relevant. It is an ongoing process, and at least for me, there is still along way to go.

Regarding the migrant experiences, we should be aware of the right wing winds blowing in many territories, that blame migrants for the problems of a community, while at the same time, restricting the mobility and access of migrant persons and communities to different spaces and resources for development. Thus, we have to keep in mind that most of the times, the narratives of migration are not told by migrant themselves. Who holds the power over these narratives, and how can we counterweight this through our work?

2.2 Methods

As above mentioned in the transcription, during the presentation I mentioned strategies of care to work in codesign processes, which can be the base for actively seeking to create tools, based on mutual respect and solidarity, for decreasing our own influence and enhancing our participants' agency as co-creators and co-owners (Bauer and Wiberg, 2017). Researching from a position of *vulnerability* can be a strength into connecting with others' experiences of migration (Behar, 1996).

Some of the methods I developed and tested with the participants of both projects were aimed at prompting storytelling with different physical, visual and verbal cues, exploring ways to express the stories with metaphors, movements and drawings. An important learning has been to open unstructured spaces where conversations happen organically, for example, in the case of the project with the young Afghans, through cooking together (Castillo Muñoz, 2018, Appendix II).

The second project with virtual settings had other challenges, and the methods designed and tested aimed at reflection and conversation: Creating a collective archive of experiences, through answering to questions with images, clips and short texts; drawing history lines; and weaving the identity territories with history lines (Castillo Muñoz, 2020, Chapter 4 and p. 40)

Concretely for this presentation, an individual method of presenting collective thoughts was made through the video collage with fragmental narrations, inspired both in personal and collective experiences from both projects. The purpose was to share impressions and *sentipensares* from a diasporic perspective.

2.3 Staying diasporic

Revising the history of the places that hold me, I realise that a very relevant discussion regarding migration and diaspora, is to actually question the hegemonic notions of *property, belonging and mobility*: How do we relate to these questions? And how is design materialising the expression or the resistance and contestation to those notions? (Mata-Marín, 2020).

My proposal is that the diasporic experiences are like a spectrum: We all can relate to certain experiences of otherness. The important part is understanding that we don't own all the experiences of the spectrum. Then, our work as designers is not to design the outcomes, but to come up with codesign strategies so the owners of those experiences have the spaces to voice them themselves.

As an answer to the last question of the panel: "What is the best insight you can share with students and designers today?", I mentioned again to *stay diasporic*, to dare to put yourself in that in-betweenness, to embrace the otherness, the displacement. Gloria Anzaldúa (1987) coined the term "Nepantla", which in náhuatl means literally "in between", as that physical, conceptual or imaginary territories in the middle of everything, connecting worlds. It is not an easy task, but I believe we can all gain new perspectives from this space, and re-shift our work towards a restorative justice approach.

Conclusions

Migration and diaspora are relevant topics to be discussed from a decolonial point of view in design. Thinking from this perspective challenges the hegemonic notion of objectivity and neutrality in western design: A very personal and deep work of reflection about positionality is needed, not only for the outcomes of the design process itself, but even as an entry point with participants with other experiences of migration and diaspora. I believe there is a long way to go into dismantling the hegemonic notions of *property, belonging and mobility* in order to materialise more solidary, just and equal worlds.

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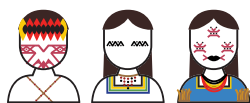
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About the Author

Yénika Castillo Muñoz is an independent designer, scholar and activist. Her work explores the intersections of Design, decolonial theories and activism, finding inspiration on Mexican and Latin American knowledge, culture and ways of being. She is mostly interested in interaction design from a place of collective creation and relationality, encouraging horizontal collaborations in a frame of human rights and within planetary boundaries. She parts from her own migration experience to connect to others, to reflect upon the role of designers to kick off creative processes from below to shift paradigms. She is on a personal journey of decolonising her own upbringing in a catholic home, as a straight, middle-class mestiza in Central Mexico, assuming as well her diasporic identity as a person of color in Scandinavia.



PICTOGRAMAS NACIONALIDADES INDÍGENAS AMAZÓNICAS DEL ECUADOR

aporte gráfico al artículo

PICTOGRAMAS, COMUNICACIÓN INTERCULTURAL Y DISEÑO PARTICIPATIVO
por Nathaly Pinto y Andrea Botero.

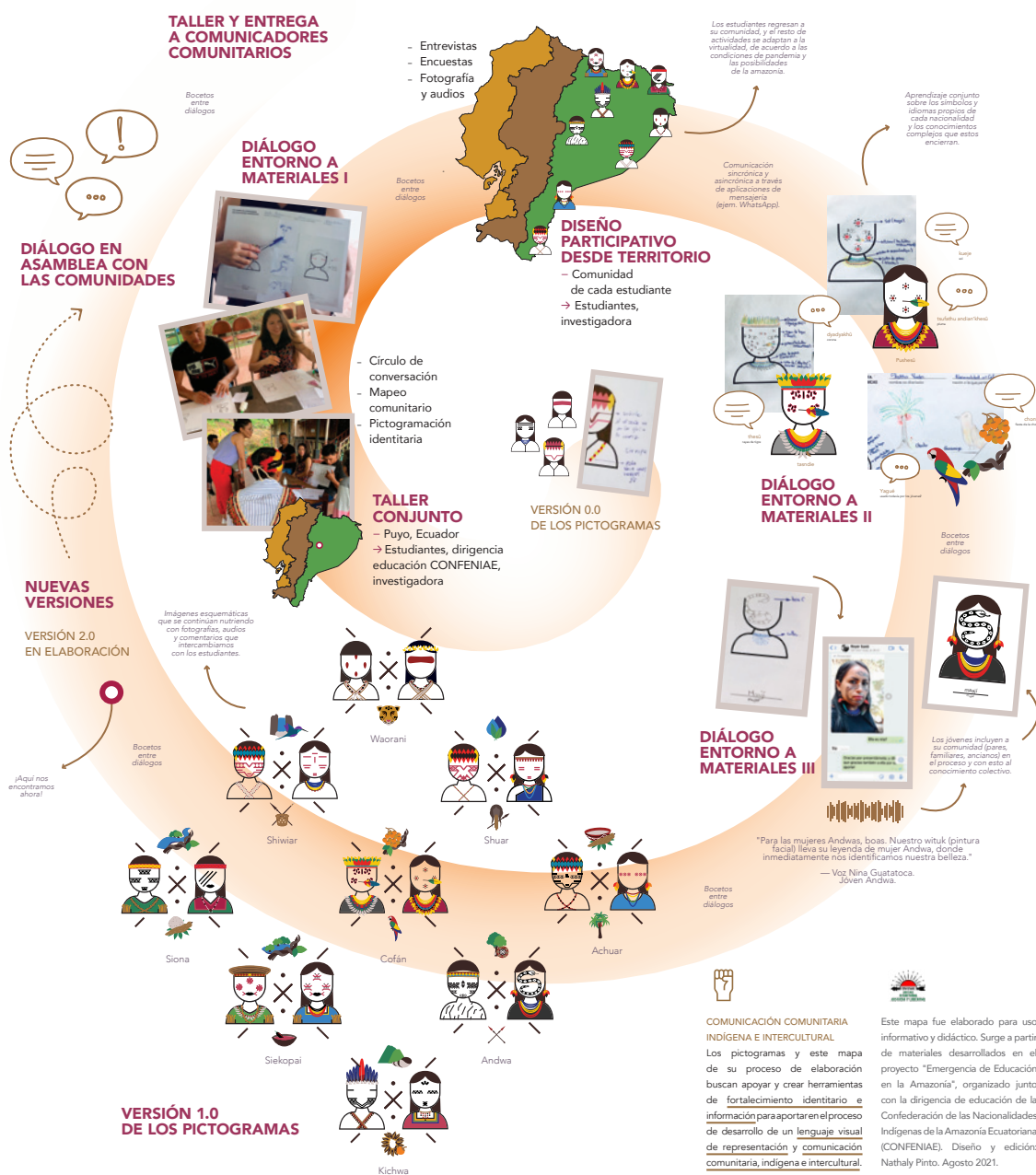
ABSTRACT

Reflexionamos sobre el proceso y los resultados preliminares de un proyecto participativo que tiene como objetivo apoyar y diseñar de manera colaborativa un sistema de pictogramas para los procesos de comunicación intercultural con y para comunidades indígenas del Ecuador. El proyecto construye sobre la larga tradición de comunicación comunitaria indígena que ha sido un importante espacio intercultural de resistencia para los pueblos indígenas de Ecuador. Durante el proyecto hemos unido esfuerzos con jóvenes representantes de distintas nacionalidades amazónicas motivados por la necesidad de compartir información y visibilizar la situación por la que atraviesan, como estudiantes, preocupados por el impacto diferenciado que ha tenido la

pandemia COVID-19 en los pueblos indígenas. Para organizar el proceso nos apoyamos en las extensas prácticas visuales indígenas contemporáneas, en experiencias de diseño participativo del Sur Global y en enseñanzas de la Investigación Indígena que apoyan la creación de una serie de materiales gráficos. Estas experiencias nos permiten discutir cómo las transiciones entre imagen y palabras, practicadas a través de la creación de los pictogramas, pueden permitirnos a todos los involucrados probar formas de construcción de conocimiento y comprensión crítica de la realidad.

ESTUDIANTES REPRESENTANTES DE NACIONALIDADES AMAZÓNICAS

Esperanza Piaguaje, Nacionalidad Secoya; Sabina Guerrero, Nacionalidad Siona; Shakira Yumbo, Nacionalidad Cofán; Esteban Timias, Nacionalidad Shiwari; Jeaneth Mashian, Nacionalidad Achuar; Royer Santi, Nacionalidad Andwa; Nixon Nihua, Nacionalidad Waorani; Yankeum Wampash, Nacionalidad Shuar; Fayer Aguida, Nacionalidad Kichwa.



Mirada al Futuro a raíz de un Experimento Educativo Sobre Diseño y Género

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Actualmente, presenciamos transformaciones en ámbitos interconectados como la educación y el diseño; podemos reconocer estos cambios en la creciente digitalización de procesos educativos, en la amplia oferta virtual de cursos de especialización en diseño o en la diversificación de recursos utilizados en educación y en diseño. Sin embargo, aunque estas temáticas pueden considerarse amplias, aún quedan vacíos reflexivos no abordados a profundidad, como la formación en diseño o las diferentes perspectivas para pensar y hacer diseño. En este contexto, un grupo de diseñadoras decidió organizar una certificación en línea que aborde estas cuestiones desde posiciones críticas planteadas a partir de la creación de nuevos conocimientos a través del diseño hispanoparlante. Se creó la certificación Diseño de incursión con perspectiva de género, en la que se discutió durante 3 semanas, públicamente, la relación que diferentes colectivos establecen entre su trabajo y las perspectivas de género; se propusieron 2 audios semanales del podcast Diseño y Diáspora, realizar un resumen gráfico, responder preguntas y comentar otros trabajos de participantes. La certificación se propuso como un experimento para pensar las diferentes estrategias enfocadas en la creación de nuevas experiencias educativas que, compartidas, valoradas y trabajadas entre pares, integrarían importantes características como apertura y convocatoria global, gratuidad, transdisciplinariedad y promoción de las posibilidades de formación fuera de espacios educativos formales.

diseño; podcast; oralidad; educación; género

1. Introducción

Actualmente, presenciamos significativas transformaciones en ámbitos interconectados como la educación y el diseño, y podemos reconocer estos cambios en la creciente digitalización de los procesos educativos, en la amplia variedad y oferta virtual de cursos de especialización en la práctica del diseño o en la diversificación de los recursos utilizados tanto en la educación como en el diseño. Sin embargo, aunque las propuestas y temáticas pueden considerarse amplias, aún quedan vacíos y pendientes reflexivos que no han sido abordados o discutidos a profundidad, como la formación de las diseñadoras y los diseñadores o las diferentes perspectivas desde las cuales pensar y hacer diseño.

En este contexto, un grupo de diseñadoras decidió organizar una certificación en línea que aborde estas cuestiones desde posiciones críticas planteadas desde la creación de nuevos conocimientos a través del diseño hispanoparlante. Así, se creó la certificación Diseño de incursión con perspectiva de género, en la que se discutió durante 3 semanas, de manera pública, la relación que diferentes colectivos establecen entre su trabajo, el género y las perspectivas feministas, a través de la propuesta de 2 audios semanales del podcast Diseño y Diáspora, la realización de un resumen gráfico, responder preguntas relacionadas con la temática del audio y comentar los trabajos de otras y otros participantes. La certificación se planteó como asincrónica, es decir, cada participante definía el horario y el ritmo del curso, sin embargo, también estuvo estructurada de manera sincrónica, ya que mantuvo definidas las fechas de inicio y finalización de actividades, lo que generó una cierta sincronidad y sinergia entre las y los participantes que mantuvieron una interacción constante entre ellas y ellos. Todo el proceso de la certificación se propuso como un experimento para pensar en las diferentes posibilidades y estrategias enfocadas en la creación de nuevas experiencias educativas que, compartidas, valoradas y trabajadas entre pares, integrarían importantes características como apertura y convocatoria global, gratuidad, transdisciplinariedad y, principalmente, promoción de las posibilidades de formación fuera de los espacios educativos formales.

Luego de la certificación -y como una de sus consecuencias- se organizó un conversatorio entre 6 docentes que asistieron como participantes y se mantienen relacionados con la práctica y la enseñanza del diseño en diferentes universidades latinoamericanas (Venezuela, Puerto Rico, Argentina, México y Ecuador), en el que se abordaron y discutieron temas relacionados con la educación, el diseño, el uso de recursos como el podcast de Diseño y Diáspora en la formación del diseño y la manera abierta e informal en la que se realizó la certificación. Como diseñadores, educadores y a partir de la experiencia en el cursado de la certificación, nos reunimos para escribir este texto y responder preguntas diversas, entre ellas ¿Cómo diseñar nuevas experiencias educativas que abracen la complejidad de la situación latinoamericana, propongan un posicionamiento crítico a los participantes de manera colaborativa, internacional, transdisciplinar, gratuita e informal? Este artículo indaga en las posibles respuestas a esta pregunta desde el análisis de la experiencia en la certificación y desde las nuevas posibilidades de interacción que se han abierto a partir de la digitalización de la educación en diseño.

Desde esta perspectiva, entre los encuentros más importantes que aparecieron en este proceso de reflexión, se puede mencionar la necesidad de pensar la práctica del diseño desde diferentes enfoques, perspectivas y paradigmas, como el género o las epistemologías otras. En paralelo, También reflexionamos sobre el uso de herramientas como el podcast en la educación del diseño que, de manera precisa, no puede ser considerado únicamente como la incorporación de una herramienta pedagógica más, sino como un posicionamiento que, de forma significativa, ubica al diseño en el espacio actual de las transformaciones digitales. Tampoco queremos desaprovechar la oportunidad para reflexionar sobre la importancia de la discusión crítica sobre los procesos educativos formales y las posibilidades de capacitación y especialización en y desde espacios no formales o no académicos; y, principalmente, a partir de las posibilidades y potencialidades que estas discusiones y cuestionamientos abren.

Tanto las características de la certificación Diseño de incursión con perspectiva de género, como las reflexiones, cuestionamientos y discusiones que este ejercicio provocó, podrían ser considerados como puntos de partida para repensar y reformular diversos aspectos y dimensiones de la práctica y la educación del diseño. Las posibilidades de colaboración formal e informal a partir de visiones más amplias, inclusivas y globales, se presenta como una potencial oportunidad para visibilizar los procesos que desarrollan colectivos de diseñadoras y diseñadores, para fomentar la creación de redes y grupos a partir de la consideración de la práctica del diseño en toda su amplitud y complejidad.

2. ¿Qué se planteó?

La certificación se organizó a partir de 3 ejes básicos desde los cuales fue posible, posteriormente, analizar tanto los resultados como el impacto de la actividad. Estos ejes fueron: la idea de educación popular; la creación de un curso sin infraestructura específica usando medios sociales como plataformas; y, la posibilidad de que todas las actividades fueran públicas.

La educación popular -entendida desde la noción de Paulo Freire (2005) como la posibilidad de transferir conocimientos y a la vez crear las condiciones para su producción desde la igualdad y equidad social- posibilitó organizar la certificación desde la premisa de una educación gratuita, libre e incluyente, es decir, se intentó ubicar al evento entre el rigor de la educación académica formal y las posibilidades de la educación informal, como la oferta abierta de formación sin adscripción a instituciones académicas. La certificación, en este sentido, se propone como libre, abierta, incluyente y accesible. Sin embargo, mantuvo (y mantiene) vínculos con comunidades de pares como Más Mujeres UX, la comunidad de escuchas del podcast “Diseño y Diáspora” y diversas redes académicas, lo que permitió pensar en la posibilidad de movilidad social a partir del libre acceso al curso y a sus resultados tanto a personas relacionadas con la disciplina del diseño como a personas fuera de esta.

Según lo señalado y con base en las posibilidades de apertura e inclusión del evento, el curso fue creado y organizado sin una infraestructura específica y sin una institución educativa formal que lo avale o lo acoja, en otras palabras, se definió la cursada como una experiencia asincrónica similar a la educación a distancia que permita el acceso a los recursos de manera flexible. En este sentido, el curso se estructuró con una duración de 3 semanas en las que se propuso a las y los participantes la escucha semanal de 2 audios del podcast “Diseño y Diáspora”, un repositorio auditivo de entrevistas realizadas a personas y colectivos que realizan aportes significativos al Diseño. Posteriormente se propuso a las y los participantes la realización de un resumen visual por cada podcast y se les pidió responder 2 preguntas relacionadas con la temática del episodio, estas 2 preguntas se podían elegir de un total de 5 preguntas por episodio. La metodología propuesta se basó en 4 etapas de trabajo: escuchar (los audios propuestos del podcast de Diseño y Diáspora); reflexionar (sobre los contenidos de los audios y la temática planteada en la certificación y responder las preguntas de la tarea); diseñar (realizar un resumen gráfico sobre el tema); compartir (los resultados gráficos y las respuestas a las preguntas fueron compartidas a través de las redes sociales propuestas); comentar (se pidió que cada participante comentara los trabajos de sus compañeras y compañeros de grupo). Quienes cursaron la certificación, recibían la devolución de 5 integrantes del grupo organizador de esta certificación. Vale aclarar que por el carácter abierto del curso, también comentaban otras personas que veían las publicaciones en las cuentas de Instagram de las y los participantes, no solo comentaron las personas que participaron en el curso.

3. ¿Qué pasó?

La flexibilidad de acceso al curso permitió la posibilidad de que todas las actividades de la certificación fueran públicas y abiertas. Así, se inscribieron 567 personas de varios rincones del mundo que se

dividieron en 40 grupos (Naranjo, Melgar, Rius, 2021). Los resúmenes gráficos y las respuestas a las preguntas propuestas fueron colgadas en Instagram o en archivos compartidos en un espacio de Google de cada grupo. La característica pública de los grupos en Instagram permitió y potenció la interacción entre los participantes y fomentó además la participación en grupos de Telegram, previamente creados para quienes no tuvieron la oportunidad de usar la red social de Instagram. A partir de estas estrategias de interacción y participación, se motivó a las y los participantes a colaborar con una retroalimentación crítica a sus compañeras y compañeros.

Los resúmenes visuales creados por las y los participantes de esta certificación fueron publicados con licencia creativa común con atribución, lo que permitió mantener de forma consecuente la noción de lo público del curso, la apertura en la generación de los resultados para el bien común y, principalmente, la gratuidad de la propuesta. De esta manera, la certificación fomentó la creación de un registro público abierto y gratuito de resúmenes gráficos y reflexiones de los participantes sin intervenciones institucionales formales y en manos de personas particulares. Así, se planteó la certificación como un experimento para pensar las formas en las que se podrían crear nuevas experiencias y actividades gratuitas, internacionales y abiertas que promuevan la formación y la colaboración entre pares.

La certificación abordó la temática de género en un campo disciplinar específico que es el Diseño. Si bien, desde ciertas perspectivas y en varios contextos las temáticas de género y feminismo son tópicos que poco a poco se han ido generalizando y transformando en cuestiones cada vez más discutidas y pensadas, en el campo particular del diseño ha sido muy poco lo que se ha avanzado y, en consecuencia, se han construido muy pocos espacios de pensamiento y limitadas estrategias de socialización y discusión en la articulación entre las perspectivas de género y diseño. Son pocas las universidades de lengua hispana que proponen esa aproximación desde una materia específica incluida en su currícula.

Durante la certificación las y los participantes discutieron y aprendieron sobre género, su concepto y qué proyectos plantean y gestionan las personas y los colectivos dedicados a este tema. Con relación al concepto, las entrevistadas y los entrevistados recordaron que el género no es únicamente hablar de mujeres, sino abordar desde una perspectiva más amplia las estrategias con las que se miran y reconocen las identidades de otros y otras. De esta forma, se revisaron conceptos nuevos como el de economía feminista, propuesta que entiende que el conocimiento se construye en comunidad, tomando en cuenta, principalmente, los cuidados que se establecen entre todas y todos. Se conocieron además referentes del diseño poco conocidos y conocidos que trabajan desde perspectivas de género. Se reflexionó sobre lo aprendido y cómo estos nuevos conocimientos se relacionan con las experiencias de cada una y cada uno (y sus contextos). Todo esto de manera pública, no en la privacidad de un salón de clase y con gente perteneciente o no a diferentes universidades. Resulta importante señalar que una de las preguntas entregadas a las y los participantes en la actividad hacía énfasis en la relación que podrían establecer entre las temáticas propuestas en los podcasts y sus contextos particulares, sus lugares de residencia.

En este contexto, aparece la posibilidad (de alguna forma urgente) de cursar, aprender y reflexionar sobre los enfoques de género y la práctica profesional, social, activista o política del diseño, a través de un medio poco pensado –desde la perspectiva implacablemente visual del diseño– que es la experiencia auditiva del podcast.

La utilización del formato podcast, un canal auditivo que propone una escucha personal (con audífonos, mientras se practica ejercicio o en casa, acostados o con los ojos cerrados), permite esa interiorización de lo íntimo. El relato, de esta forma, resulta y se convierte en familiar (luego de la escucha de varios audios de Diseño y Diáspora, la voz de Mariana Salgado también se convierte en familiar). Así, el contenido pasa a otro nivel de sentido, más cercano y fácil de entender. La certificación permitió oír con

atención, desarrollar una escucha activa y una mayor concentración en el contenido del podcast, a diferencia de la escucha simple de un audio.

La actividad propuesta de los resúmenes visuales permitió la combinación de la escucha de los podcasts con otros contextos y métodos distintos de trabajo, debido a la necesidad de sintetizar los contenidos y resumirlos gráficamente. De esta forma, no se podía escuchar mientras se caminaba, es decir, de manera pasiva, ya que se hacía necesario el ejercicio de traducción del contenido oral en posibilidades visuales, actividad propia de la práctica del diseño.

La dinámica en los grupos creados en Instagram y/o Telegram, se fundamentó en la socialización de la información importante, como los días límites de entrega de los resúmenes y el envío de recordatorios de la publicación: resúmenes más respuestas a las preguntas. Se planteó también, como objetivo de los grupos, el establecimiento de estrategias que mantengan una comunicación fluida entre las organizadoras y las y los participantes, a través de una motivación constante al incentivar la contribución continua con comentarios a los trabajos de compañeras y compañeros, lo que permitió que la interacción promueva que se conozcan.

4. ¿Qué obtuvimos?

Una vez concluida la certificación, se envió un cuestionario a las y los participantes para relevar una devolución de datos, obteniendo información significativa que permitió un análisis de la certificación.

Con relación a los datos del curso, se contabilizaron 659 registros de personas interesadas en cursar la certificación, sin embargo, luego de un trabajo de depuración de los datos y después de la eliminación de registros con cuentas repetidas de Instagram, se concluye la inscripción de 567 personas con registros únicos (Naranjo, Melgar, Rius, 2021).

Los 567 participantes pertenecen a 30 países, provenientes principalmente de Argentina y México. Aproximadamente el 90% de las personas inscritas tienen entre 22 y 42 años, no obstante, un 7% de participantes se encuentran entre los 42 y los 57 años. Con relación a la disciplina a la que pertenecen las y los participantes, el 58% son del campo del diseño de experiencia de usuario, UX Design (Naranjo, Melgar, Rius, 2021).

Es necesario mencionar también que, debido a la pandemia, la educación se transformó casi en su totalidad en virtual y digital, sin embargo, el cambio a teleconferencias no fue una reforma radical y únicamente se intentó trasladar el aula física al mundo virtual. En este sentido, se advirtió que la enseñanza hegemónica cambió su formato, pero no su contenido.

Desde esta perspectiva, la certificación se considera más que nada un experimento o una exploración de formatos pedagógicos, ya que propone la escucha de podcasts en el momento que las y los participantes tengan la posibilidad de acceso a los audios de manera asincrónica, y posteriormente una entrega de resúmenes gráficos sobre el contenido abordado, es decir, se hizo énfasis también en la planificación de formatos alternativos para las tareas. De esta forma, a través del uso del podcast se cumpliría el objetivo de enriquecer y optimizar los recursos educativos y así mejorar la calidad de la enseñanza (Salgado, 2020, p. 188).

En este contexto, es relevante señalar que la utilización de formatos diferentes a los visuales, como el audio y en este caso del podcast, no ha sido suficientemente aprovechado en la educación del diseño y es una manera de mostrar, a educadoras y educadores, posibilidades alternativas que generen dinámicas distintas a las tradicionales. A pesar de que las diseñadoras y los diseñadores jóvenes usan con mayor frecuencia este medio como una manera de actualización profesional y es un contenido gratis que se encuentra fácilmente en las redes, no es aprovechado en su total dimensión en los

espacios educativos. En este sentido, Mariana Salgado (2020) señala que, en parte, se debe a que las personas que consumen podcasts pertenecen a una generación distinta a la de las profesoras y los profesores de diseño que configuran y elaboran los recursos didácticos, con relación al tema, Salgado documentó en su blog diferentes experiencias del uso del podcast en universidades latinoamericanas (p. 188).¹

Estas reflexiones permitieron que nos acerquemos a ciertos temas importantes en la educación en diseño, como el poco valor que se le asigna tanto al contenido como al papel que cumplen los nuevos formatos y los recursos alternativos como el podcast en la educación formal y no formal en diseño, así como la importancia que se concede a la necesidad de la creación de comunidad de diseñadoras y diseñadores, con el fin de construir redes colaborativas que enriquezcan y desarrollen la práctica del diseño en nuestros contextos (Salgado, 2020, p.191).

El alcance del proyecto permitió el relevo de información sobre los conocimientos aprehendidos en la certificación, así, recibimos aportes de una gran cantidad de participantes que trabajan como docentes, entre ellos Omar Mendoza señala que “después de hacer la certificación, se me ocurren nuevas maneras de usar el podcast en mis clases.” Estos datos nos permitieron advertir las posibilidades abiertas por la certificación hacia el uso de medios alternativos, nuevas ideas y nuevos formatos de trabajo. Y nos surge una pregunta: ¿Por qué no podemos, desde la enseñanza formal, plantear experimentos pedagógicos que promuevan nuevos contenidos, como diseño con perspectiva de género, nuevos formatos como el uso de podcast y redes sociales, y contenidos y recursos abiertos, invitando a otras y otros participantes que no sean de nuestras universidades o instituciones?

5. ¿Qué discutimos?

Las universidades, desde su creación hace varios siglos, se establecen como espacios de generación y socialización de conocimientos alineados comúnmente a paradigmas y perspectivas hegemónicas. Sin embargo, paradójicamente, también han sido agentes sociales críticos que se han configurado como espacios de ruptura y cuestionamiento al estado normal de las cosas en el mundo (podemos recordar la participación de los espacios académicos en el célebre mayo de 1968 en París).

En esta tensión, existe una dinámica que intenta invisibilizar las posibilidades diversas y plurales propias de la educación mientras privilegia la visibilización de una característica normativa que busca la imposición de una sola visión del mundo. Boaventura de Sousa Santos (2009) propone la existencia de un sistema de distinciones que divide la realidad en dos universos diferentes (pensamiento abismal), uno visible y existente en el que una sola forma de conocimiento se despliega de manera “natural” y normativa -como el pensamiento occidental moderno o las prácticas educativas tradicionales-, y un universo invisible y no-existente en el que se mantienen excluidos pensamientos, saberes y formas de hacer otras, diferentes a las visibles en el universo hegemónico (pp.160-161). Al mantenerse separadas abismalmente estas dos dimensiones, una existente (Norte global) y una no-existente (Sur global), su presencia simultánea resulta imposible, en este sentido, Santos plantea la superación de este abismo que separa los dos universos a través de una ecología de saberes, que no es otra cosa más que la co-presencia de lo visible y lo invisible en un universo plural en el que co-existan pensamientos, saberes y formatos en permanente interacción y retroalimentación (pp. 183-184).

¹ Escuchar, sintetizar y crear un video. <https://disenoydiaspora.org/blog/escuchar-sintetizar-y-crear-un-video/>
 Diseño y diáspora en la educación de los diseñadores: <https://disenoydiaspora.org/blog/disenoy-diaspora-en-la-educacion-de-disenadores/>
 Escuchar, leer y escribir
<https://disenoydiaspora.org/blog/escuchar-leer-y-escribir/>

Desde esta perspectiva, creemos que es necesario que la educación salte la línea abismal desde lo invisible hacia lo existente, es decir, pensamos que el salto de la universidad a la pluriuniversidad, propuesta también por Santos (2006), resulta una opción que debería mantenerse presente de forma directa o indirecta en los procesos educativos formales e informales. La pluriuniversidad propone pensar la educación superior desde una dimensión solidaria, con el propósito de generar formas plurales de construcción de conocimiento, es decir, la búsqueda de una co-presencia de saberes, estrategias educativas y formatos diferentes.

Proponemos que es el caso de la certificación en género y diseño, y del uso, en su cursada, de recursos que podrían considerarse alternativos, como la presencia fundamental del podcast y los ejercicios reflexivos a través de resúmenes gráficos. La certificación, sin adscripción formal a ninguna institución académica, se planteó como un espacio de formación externo a la dinámica normativa a la que se encuentra tradicionalmente articulada la academia y la formación profesional en diseño. No obstante, la certificación logró sostener implicaciones indirectas con espacios académicos formales, organizando al final de la cursada un conversatorio con docentes de universidades de varios países latinoamericanos, admitiendo la tensión señalada entre la formalidad uniforme y hegemónica, y las potencialidades de la educación plural y externa a las normativas académicas (El futuro de la educación en diseño, 2021), permitiendo la visibilización, a partir de una suerte de co-presencia, de formas diversas de comunicación como la visualidad y la oralidad a través del uso del podcast, recurso poco abordado en espacios educativos.

En este sentido, la certificación abre un resquicio o un espacio para pensar el diseño desde diferentes perspectivas y lugares otros de formación. Si bien las universidades ya cuentan con procesos articulados con diversos sectores sociales (como el trabajo de los departamentos de extensión y educación continua, los proyectos de vinculación con la sociedad o la difusión del conocimiento generado a través de publicaciones especializadas), creemos que la emergencia de espacios de formación como resultado de inevitables procesos de autoconvocatoria de diseñadoras y diseñadores, docentes y practicantes de actividades de producción creativa (como la participación del colectivo de Mujeres +UX en la organización y desarrollo de la certificación), es un paso importante en la articulación de lo que Ezio Manzini (2015) denominó trabajo conjunto entre el diseño difuso y el diseño experto (p.2), es decir, estamos convencidos que estas iniciativas permiten la posibilidad de co-existencia y visibilización de formatos, estrategias, colectivos, redes y saberes, gracias a que proyectos como la certificación en diseño y género, difuminan o vuelven poco perceptible la línea abismal, propuesta por Santos (2009), que separa universos distintos y jerarquiza las continuidades educativas en nuestros países.

6. Conclusión

Los puntos fundamentales de este artículo se pueden resumir como:

- 1) Los beneficios del uso del podcast en la educación está todavía poco explorado y tiene mucho potencial, por tanto, surge la necesidad de apoyar la creación de archivos sonoros abiertos y, a través de estos recursos, ampliar la oferta de cursos para educadores en diseño que motiven la exploración con nuevos formatos,
- 2) Existe la necesidad de ampliar el contenido en castellano sobre temas relevantes, y hacerlo de manera colaborativa entre actores formales e informales de la educación en diseño, como el caso del diseño con perspectiva de género y este experimento.
- 3) La oportunidad de usar las redes sociales como infraestructura para un curso abierto abre puertas a colaboraciones regionales en el mundo hispanohablante. A la vez, la asincronicidad de la propuesta

posibilitó la colaboración entre regiones con diferentes husos horarios. A la hora de crear dispositivos educativos incluyentes, la infraestructura y asincronicidad deben ser tomadas en cuenta.

4) El desarrollo de experimentos educativos para hispanohablantes, incluyendo el multiculturalismo de la región y la diáspora, es vital para reactivar un pensamiento pluriversal desde el sur en nuestra disciplina.

5) La certificación estuvo planteada desde dos comunidades de pares y no desde instituciones formales de enseñanza, nos hace darnos cuenta de la necesidad de educación de calidad permanente para los diseñadores, y que las universidades nacionales públicas necesitan ser parte de esta oferta y de estas redes de acción colectiva que se forman en relación con la educación permanente.

Pensamos que el problema al que se enfrenta la educación convencional de diseño es su emergencia desde un centro hegemónico de máximas fijas, dadas por hecho e inmutables, es decir, se acepta como norma un concepto monolítico de lo que es diseño. Sin embargo, creemos que dentro de esta definición de diseño existen categorías plurales definidas por la diversidad cultural y las identidades multiculturales. En este sentido, proponemos que a partir de un trabajo colaborativo sería posible abordar esta diferencia y promover más intercambios y diálogos, especialmente en los ámbitos académicos.

Actualmente, gracias al estado de aldea global y las redes sociales, es posible desplegar este intercambio directo, por tanto, entendemos que se hace preciso proponer nuevas formas de interacción entre la población de diferentes países y universidades. Se abren así posibilidades a partir de la pandemia y la consideración de que este tipo de proyectos y dinámicas se encuentran en los primeros momentos de esta exploración. Sin embargo, para generar procesos entre todas y todos, hay que pensarlas desde el multiculturalismo y, especialmente, desde la diáspora.

Si no miramos este tipo de experimentos desde la educación formal en diseño en las universidades para aprender de ellos, y establecer nexos y redes colaborativas de reflexión y práctica, nos estaríamos aislando. Por tanto, nos cuestionamos ¿Qué podemos aprender de este tipo de experimentos? ¿Cómo, desde la educación formal, podemos apoyar este tipo de iniciativas? y ¿Cuál sería nuestra contribución?

Existen iniciativas a nivel institucional en las que dos universidades colaboran académicamente. Una de ellas es el taller interuniversitario de diseño (TIUD) en el que 5 universidades de la Ciudad de México, públicas y privadas, trabajan durante un semestre de manera colaborativa y permite otorgar una calificación en cada institución para las alumnas y alumnos participantes. También, está en marcha el Laboratorio Internacional Multidisciplinario de Diseño UNAM que reúne a más de 7 de universidades de Latinoamérica. Estudiantes, profesoras y profesores se juntan en beneficio del diseño para los sures (para la pluralidad del Sur global). Es decir, proyectos con carácter colaborativo que van en dirección opuesta a la educación individual y hegemónica, pueden ser pensados como adscritos a una contranarrativa que permita ocupar posiciones distintas desde las cuales pensar el diseño y que posibilite, a la vez, la visibilización y legitimación de una minoría de diseñadoras y diseñadores que se encuentran actualmente trabajando dentro de esta noción contrahegemónica.

Al finalizar la certificación, surgen más preguntas inconclusas que respuestas definitivas ¿Cómo pueden los recursos no visuales, como los podcasts, funcionar como instrumentos pedagógicos en la enseñanza del diseño? ¿Estamos considerando y legitimando en nuestras prácticas como educadores el valor de la historia oral del diseño, al dejar los archivos de podcasts en manos de los podcasteros y podcasteras? ¿No tendrían que ser estos archivos de audio parte esencial de nuestras bibliotecas? ¿Cómo construiríamos una experiencia similar a nivel global con diferentes calendarios y zonas horarias? Las

respuestas se encontrarán posteriormente en las próximas experiencias que educadoras, educadores y personas trabajando desde contranarrativas en el ámbito del diseño, organicen y construyan.²

Proponemos esta experiencia como una oportunidad para pensar nociones distintas de diseño, modelos alternativos a la educación hegemónica y nuevos usos de viejos recursos como el podcast, los medios sociales y la oralidad. Reflexionamos críticamente sobre lo que pasó en este experimento educativo porque creemos en la necesidad de trazar lazos entre la educación formal y la informal, sobre todo cuando la iniciativa parte de comunidades de pares desarrollando temas que necesitan visibilizarse de manera urgente. No existe la seguridad de que las respuestas a las preguntas abiertas por la certificación sean respondidas de manera inmediata, lo que es seguro es que serán respondidas de manera colaborativa entre todas y todos.

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² En Puerto Rico, se está creando un proyecto educativo que intenta salvaguardar y visibilizar el reggaetón con el fin de potenciar su importancia en la cultura local, a través de la creación de un Archivo Histórico del Reggaetón Puertorriqueño mediante el uso de redes sociales, principalmente Instagram. <https://www.hastabajoproject.com>

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La Comensalidad como Herramienta para Democratizar Espacios: Vivencia en un laboratorio de diseño autónomo entre artesanas de Yochib y una diseñadora.

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En este estudio se puede analizar el uso de una herramienta que al mismo tiempo es un dispositivo de conversación llamado comensalidad, usado para democratizar espacios y ayudar a la co-creación de prendas y textiles entre un grupo de artesanas textiles del sur de México en la comunidad semiautónoma denominada Yochib, perteneciente a la etnia tzeltal maya y una diseñadora. Para ello se conformó un laboratorio de creación y experimentación -dividido en diferentes reuniones y talleres- con el objetivo de diseñar de forma autónoma a través de la correspondencia. Así, este estudio se centró en las formas en que las artesanas pueden producir de forma autónoma con la intervención de un diseñador como mediador y facilitador del proceso de creación, haciendo uso de herramientas como la introducción de alimentos. En este laboratorio se observó como la elicitación sensorial por medio del paladar crea confianza y un ambiente de intimidad que ayuda al proceso de co-creación, pasando por momentos donde este se convierte en un don/ regalo y este termina siendo devuelto por las artesanas.

Correspondencia; comensalidad; dispositivos de conversación; don

1. Introducción

Este estudio tiene como objetivo reflexionar sobre las formas de comunicación entre diferentes mundos -entre un grupo de creadoras artesanas de tejidos del sur de México en la comunidad semiautónoma llamada Yochib, perteneciente a la etnia maya tzeltal y una diseñadora- para crear un ambiente especial

y así vivenciar el diseño autónomo. Para ello, se conformó junto a una diseñadora, un laboratorio de creación y experimentación –dividido en diferentes reuniones y talleres- con el objetivo de hacer el diseño de forma autónoma a través de la correspondencia. La correspondencia, según Ingold (2017), se trata de unir, “se trata de las formas en que las vidas, en su desarrollo o devenir perpetuo, se responden unas a otras” (INGOLD, 2017, p. 41). Por esto, entendemos las correspondencias como prácticas que se construyen a partir de nuestra presencia atencional en respuesta al mundo y como una filosofía para este estudio. Y es con esta atención que se formó el laboratorio, construido a partir de las necesidades, sueños, deseos de las artesanas junto con la diseñadora con énfasis en la actividad textil artesanal de Yochib.

2. Metodología

Para iniciar este estudio, fue necesario delinear sus pasos, recuerde que el estudio fue parte de una maestría de investigación en diseño por la UFMA. El cual presenta un acercamiento teórico al diseño descolonial entendido como prácticas de diseño a través de métodos, principios y reglas que problematizan y emancipan de los prejuicios de los últimos cinco siglos de colonización e imperialismo, según Tunstall (2013). Este diseño descolonial se vive a través de prácticas de correspondencia, que asumimos como un “proceso de atención al mundo, en el que las personas se dedican a responder a lo que les interesa” (NORONHA, 2018, p. 133). Estas prácticas de correspondencia adoptan un enfoque de antropología del diseño.

Así, el estudio busca generar espacios de diálogo, democratización de los procesos de creación y creatividad, y colaboración entre diseñadores y artesanas por medio del compartir alimentos: la comensalidad.

Primero, se realizó una investigación bibliográfica sobre las teorías que se abordarían, para luego insertar el estudio en el campo y establecer prácticas de correspondencia, partiendo de la creación de un laboratorio de diseño experimental. Entendemos este estudio como un experimento social, concepto que Joachim Halse (2013) desarrolla sobre el diseño exploratorio. Este espacio de diseño, un laboratorio, fue co-creado con las artesanas, en el cual se intentó generar un diálogo entre las participantes por medio de los alimentos mientras se co-creaba en el taller de textiles, fortaleciendo su autonomía y al mismo tiempo dando espacio a la práctica de la comensalidad.

Posterior al trabajo de campo, se realizó un análisis, comparando los datos obtenidos en la investigación de campo con los principios de las prácticas de diseño autónomo y otras teorías para concluir en qué medida la introducción de alimentos en la práctica de diseño ayuda a la co-creación y a establecer procesos de autonomía.

3. Correspondencias y dispositivos de conversación

El concepto correspondencia surge de la idea de escribir cartas, donde el remitente presta atención, cuidado y tiempo al otro, que sería el destinatario de estas cartas. Las correspondencias fueron concebidas por Gatt e Ingold (2013) como una forma de realizar la antropología a través del diseño. Y, cuando nos apropiamos de esta, nosotros los diseñadores, se establece como una práctica, como una forma atencional de hacer las cosas juntos, como se observa en Noronha (2018).

De un carácter eminentemente experimental y exploratorio, basado en el hacer y en las respuestas obtenidas por las intersubjetividades, las correspondencias se asumen aquí como prácticas donde hay

cuidado, atención, tiempo y la importancia del otro al hacer cosas o imaginar futuros, al pensar en el campo del diseño.

En este estudio, decidimos realizar nuestras reuniones en un lugar cercano a las casas de las artesanas, al alcance de la mano, y así construir un 'plan común'. Este lugar era en la casa de una de las artesanas, que es compartida con otras dos artesanas. Su casa fue elegida por su ubicación céntrica, ya que la mayoría de las artesanas viven a pocos metros de distancia y es de fácil acceso. Este lugar es donde tomaríamos la vida, nuestro espacio de cocreación, el 'laboratorio de diseño'. A partir de la reflexión teórica, se decidió hacer uso de experimentos a través de herramientas, instrumentos y dispositivos de conversación que generaron diálogo para iniciar una práctica de correspondencia, según el concepto de Ingold.

Esta categoría, 'dispositivos de conversación', está constituida por las reflexiones de los diseñadores Zoy Anastassakis y Barbara Szaniecki (2016), y alude a los dispositivos y las cualidades inductoras del diálogo a través de tales artefactos.

Las autoras entienden los dispositivos de conversación como una herramienta antropológica de diseño transdisciplinario, a través de la cual existe la posibilidad de crear un espacio para el imaginario colectivo de posibilidades alternativas. Si ponemos esto en nuestros encuentros, serían alternativas para el hacer textil, desde la concepción de la idea hasta el proceso de elaboración en sí, pasando por los actores que forman parte del proceso. Si pensamos en las alternativas de los actores involucrados, podemos creer que podrían desafiar a sus fuerzas dominantes, y así establecer nuevas formas de diálogo, como dicen las autoras.

El interés de nuestras reuniones haciendo uso de dispositivos de conversación fue el de desarrollar, como explican las autoras, una serie de experimentos en los que "los medios y métodos de diseño fueron los detonantes para abrir preguntas" (ANASTASSAKIS, SZANIECKI, 2016, p. 122). Este sería un espacio para este tipo de experimentos en busca de alternativas colectivas.

Para comprender el concepto de dispositivos de conversación, es necesario conocer el origen para poder utilizarlo. Según las autoras, fue un concepto que surgió de su propia percepción como diseñadoras que actúan dentro de relaciones de poder muy complejas, pero incluso en esta situación tensa, se puede colaborar con herramientas profesionales específicas. El concepto de dispositivo proviene de Michael Foucault.

El dispositivo es, en primer lugar, un conjunto heterogéneo de discursos, organizaciones y decisiones, a veces afirmadas, otras no. Es la red que se puede establecer entre todos estos elementos. En segundo lugar, entre todos estos elementos, discursivos o no, considera que puede haber cambios de posición o modificaciones de funciones de distinta índole. Finalmente, Foucault afirma que el dispositivo tiene una función estratégica dominante que implica cierta manipulación de las relaciones de poder a través de la intervención organizada, con el fin de desarrollarlas, estabilizarlas o incluso bloquearlas. (ANASTASSAKIS, SZANIECKI, 2016, pág.123)

Los dispositivos son estrategias, materializadas en: herramientas, instrumentación, cosas; y no materializados como: acciones, actitudes, proyecciones, y los discursos que se generan en torno a ellas, etc., que surgen con las relaciones de poder que sustentan un cierto tipo de conocimiento, pero abiertas a cambios de posición.

Es decir, porque no somos estructuras fijas, nuestra constitución puede cambiar, pero también, según García (2014), el dispositivo necesita ser flexible para soportar un doble proceso, en el que su función está resonando con las demás, (esto requiere teniendo reajuste) y al mismo tiempo un llenado estratégico perpetuo. Por tanto, el dispositivo tiene un papel importante, porque compone y recompone las fuerzas en acción. Así, el rol del diseñador dentro de los encuentros con los artesanos puede ubicarse en un lugar diferente al establecido.

Debemos saber que “el dispositivo reúne, conecta y entrelaza conocimientos y poderes, en el juego continuo y en la movilidad, de una sociedad” (Ibid, p. 27). Debemos ser conscientes de que no hay ningún dispositivo que no sea en su ejercicio; por lo tanto, todo dispositivo se ubica en el espacio y con una temporalidad determinada. Así se legitimó el dispositivo de conversación en el laboratorio de diseño al estar en su ejercicio.

Además, la conversación se entiende según las investigaciones de los autores que toman a Gabriel Tarde como “un constructivismo infinitesimal, sin distinción entre naturaleza y sociedad, humana y no humana” (ANASTASSAKIS, SZANIECKI, 2016, p. 123); allí nos muestran que es la causa de todas las transformaciones sociales. También utilizan el concepto de Mikhail Bakhtin como una constitución el uno del otro “a través de las palabras; donde el otro no es un receptor pasivo, son “co-creadores de nuestro discurso y co-actualizaciones de otros mundos” (Ibid, p. 123), este último concepto tomado de Maurizio Lazzarato.

Las autoras, Anastassakis y Szaniecki, utilizan los dispositivos de conversación para construir procesos multilaterales y horizontales dentro de los espacios de conversación abiertos por los dispositivos. Estos permiten la transversalidad entre agentes heterogéneos con sus diferentes conocimientos y acciones con enfoques transdisciplinarios y transversales. Este objetivo nos llevó a pensar en formas de tener una reunión exitosa y trabajar en la co-creación, en la que estaría involucrado el laboratorio. Además, los dispositivos de conversación son una posible forma de contribuir a la democratización del espacio a través del diseño según Anastassakis y Szaniecki (2016).

4. La comensalidad como forma de estar en el espacio

Uno de estos dispositivos de conversación fue creado a través del paladar: la comida, para ayudar en la comunicación entre estos mundos (artesanas y diseñadora). Por lo tanto, este estudio se centró en las formas en que las artesanas y la diseñadora pudieron comunicarse dentro del laboratorio y crear un ambiente relajado al compartir alimentos dentro de este durante todas las reuniones en los talleres de textiles dentro de la comunidad.

El compartir la comida dentro del laboratorio también ayudó a crear el espacio de trabajo, siendo la comida dentro de los talleres una elicitación sensorial a través del gusto y que poco después acabaría siendo un 'Don', ya que dialoga con la triple obligación implícita en el don (presente): dar, recibir y devolver, como regla moral impuesta a la comunidad según las observaciones de Marcel Mauss (2003). Este dispositivo se hizo inicialmente para deshacer la tensión que existía en el espacio, en el primer encuentro, al mismo tiempo funcionó como una forma de iniciar una conversación y comenzar nuestros discursos. Estos discursos comenzaron en forma de entrevista y luego se convirtieron en agradables conversaciones. Parte del motivo para seguir llevando galletas a nuestro laboratorio todos los días de las reuniones, fue eliminar miedos, eliminar la ansiedad, el hambre y ayudar a la relajación, ya que comer “produce endorfinas endógenas, produciendo sensaciones de placer y euforia” (CLIKISALUD .NET, 2019). Luego, con el pasar de los días, la comida se convirtió en una forma de estar en el espacio, en nuestras reuniones en el laboratorio. De esta forma, la introducción de la comida en nuestras reuniones fue una estrategia para iniciar nuestras conversaciones. Porque cuando comemos con quienes estamos trabajando e investigando, participamos en su vida diaria según Sarah Pink (2015).

A medida que pasaban los días dentro del laboratorio, comenzamos a ahondar en temas más íntimos a medida que avanzaba la conversación. Pink (2015) y Seremetakis (1994) definen la comensalidad como un intercambio de recuerdos sensoriales y emociones, junto con otras sustancias y objetos que “encarnan recuerdos y sentimientos” (PINK, 2015, p. 108). Así, nuestro laboratorio siempre estuvo involucrado en estos intercambios sensoriales como parte de nuestro proceso de correspondencia que se puede percibir durante los encuentros, ya que el contacto con la comida es una forma de conocer y recordar.

Además, según Pink (2015), es más probable que un investigador aprenda algo cuando comparte comidas o alimentos que se presentan y comparten espontáneamente con otros. Ya que, compartir comida cuando se investiga puede beneficiar al diseñador para “aprender a través de la sociabilidad sensorial de comer con otros y reconocer cómo compartir sabores, texturas, prácticas alimenticias y rutinas pueden traer significados inesperados” (Ibid, p.110). Así, el uso de la comida, además de ayudar en el proceso de conocerse para realizar un trabajo de co-creación exitoso, también ayuda en el proceso a incrementar la confianza, la intimidad y el cuidado.

Después de cinco reuniones y habiendo establecido una rutina de comensalidad al comienzo de cada taller, la diseñadora decidió cambiar el horario para compartir alimentos. Esto generó que las artesanas tomaran la iniciativa y crearan esta comensalidad desde su propia concepción, con alimentos de la región: chayotes cocidos. En este punto, la comida se ha convertido en una forma de estar en el espacio. Significa que uno de los elementos que hacen funcionar el laboratorio de diseño - construido entre todas las involucradas - fue la comida; y sin tiempo para comer, la reunión empezó a dejar de fluir. La hora de la comida se tornó esencial para la dinámica de convivencia entre todas.

Y cuando adoptaron esta iniciativa, la comensalidad se transformó a su forma tradicional de hacer, como sugiere Escobar (2016) con los ingredientes y frutos del lugar que se encuentran en la vida cotidiana de las artesanas y las formas de preparar la comida, retribuyendo la bondad con otro bien de diferente valor, bajo la dinámica de sus formas de vida, que sería el contra-regalo (don) de Mauss (2003).

Este gesto también se debe a la adopción de la comensalidad como forma de estar en el laboratorio. Esta aceptación de la comensalidad en la rutina de las reuniones/ talleres es un hábito. Hábito es verse afectado por las decisiones de otras personas y vivir con sus consecuencias, es habitar el mundo. En este caso, al adoptar la comensalidad, aceptamos la convivencia que viene de probar la comida juntas, y convivimos con las nuevas decisiones y acciones que se desarrollan dentro y fuera del laboratorio. Un ejemplo de esto fue en las últimas reuniones, cuando la confianza que se vivió fue en parte por establecer un espacio de confianza dentro del laboratorio con el ejercicio de la comensalidad. Esto provocó que las artesanas pidieran a la diseñadora que mediara entre ellas y otra artesana llamada Catalina. De esta manera, Catalina pudo enseñar una nueva técnica de tejido, provocando la democratización en el espacio, al compartir conocimientos que eran dispositivos de poder entre ellas.

5. El “don” de las artesanas.

Por otro lado, la comensalidad también jugó otro papel importante para el laboratorio y sus involucradas. Este nuevo rol se vio en el cierre de los talleres de creación con un último don (obsequio), retomado al compartir el pan y chocolate, donde la diseñadora cocinó para ellas.

Mauss (2003) define el don como una lógica organizativa de lo social que tiene un carácter universalizador, que consiste en la aceptación de que existe una presencia constante de un sistema de reciprocidad interpersonal en todas las sociedades existentes en la historia humana. Así, llegamos a saber que la vida social es un sistema de beneficios y consideración que obliga a los miembros de la comunidad a formar parte de ella. Sin embargo, esta obligación no es absoluta, ya que existe libertad para entrar o salir de este sistema, lo que puede resultar en un giro de la paz a la guerra. Por tanto, podríamos interpretar esta obligación como una regla moral.

Cuando hay una ruptura en la dicotomía de "dar y pagar" del sistema de mercado, podemos visualizar otro tipo de acción, vista como un movimiento en el que se actúa en conjunto. Es así como se mueven juntos, impulsados por la fuerza del bien dado, recibido y recíproco, reajustando la distribución de los lugares involucrados, su inclusión, reconocimiento, entre otros.

El don (también traducido como regalo) puede ser simbólico o material. Una parte importante de este intercambio son los cambios dentro de la comunidad, por ejemplo, el poder y los lugares dentro de la convivencia social. Estos constantes reajustes (movimientos) pueden verse como un diálogo, una correspondencia entre quienes desencadenan el regalo en el que el valor importante no es la cantidad, sino la calidad y los movimientos juntos, para que el retorno no tenga como principio la equivalencia. - como una simple reciprocidad, con la condición de ser un objeto inerte intercambiado entre individuos - sino más bien, asimetría y dinamismo - algo en el fluir de la vida de las personas, convirtiéndose en una extensión de ellas. De esta manera, el don fluye y vive en manos de quienes lo devolvieron, con todas las experiencias de vida que tuvieron los involucrados.

Según Gatt e Ingold (2013), Mauss señaló que en el intercambio de obsequios “lo que se da está indisolublemente ligado a la persona del donante” (GATT, INGOLD, 2013, p. 249). Así, el vínculo que se creó entre las personas que activaron el don fue en realidad “un vínculo entre personas, porque la cosa en sí es una persona o pertenece a una persona. Por tanto, dar algo es dar parte de uno mismo” (ibid, p. 249). De esta forma, Mauss colocó la posibilidad de que los yoes se interpenetraran, como si fueran una mezcla, en la que cada uno (ser persona y cosa) participa de la vida del otro, sin perder su identidad.

Las personas y las relaciones solo pueden continuar o persistir en la corriente del tiempo real. Como personificación material de un proceso generativo, el don también está imbuido de duración, llevando consigo una historia de relaciones entre aquellos por quienes pasó entre manos y empujando estas relaciones hacia el futuro. El espíritu del don, su fuerza vital o impulso, equivale precisamente a este contenido duradero (GATT, INGOLD, 2013, p. 249).

Los dones pasan de mano en mano, enrollando y superponiendo líneas de vida “como en un relevo” (ibid, p. 249). Así, el don capta el fluir de la vida social, transmitiéndolo, en el que su significado puede ser descifrado en la memoria de intercambios previos, de su trayectoria, siendo el presente un momento singular en ese fluir.

6. La última comensalidad

Este obsequio y hospitalidad (comida) se puso en marcha durante los encuentros posteriores al primer presente, dinamizando las bondades que se crearon a partir de la realización del laboratorio, tanto como forma de estar en el laboratorio de diseño, como parte de la correspondencia que entre todas experimentamos, pero fue en el último don que se pudieron ver cosas diferentes de la vida cotidiana de las artesanas.

Ya que, luego de haber terminado los talleres y a modo de cierre, se decidió hacer el último don, retomado con el reparto de pan y chocolate, en el que la diseñadora cocinaba para ellas. Este último don fue una forma de cerrar el laboratorio con una ronda final de conversaciones de retroalimentación sobre las experiencias y experimentos mientras comían pan y chocolate caliente. De esta manera, terminamos nuestras actividades entre la diseñadora y las artesanas co-diseñando y creando juntas.

En esta retroalimentación, hablaron sobre las cosas que más les gustaron de las reuniones, así como las cosas que no les gustaron. Esta conversación ayudó a planificar futuros encuentros entre la diseñadora y las artesanas, pero también en esa última comensalidad, se percibió que todavía existen rastros de la colonización, pues parte de sus tradiciones fueron removidas, las cuales perduran hasta nuestros días. Un ejemplo de esto es el uso del cacao, que es un fruto de la región, utilizado por las comunidades originarias en la época precolonial pero con la colonia, el cacao fue prohibido y retirado de los usos tradicionales de algunas comunidades, dejando así su uso exclusivo a los españoles y mestizos (Gil, 2015, p. 39). Este hecho histórico tuvo énfasis en este encuentro, ya que las artesanas nunca antes habían probado el cacao y el

chocolate con agua o leche. Este evento podría significar la evidencia de que el laboratorio como espacio de creación, fue también un espacio de crecimiento para rescatar, valorar y respetar los alimentos que se consumían.

Finalmente, este último don (regalo) fue la forma material gastronómica en la que se reconocieron y correspondieron las aportaciones de todas las artesanas junto con sus familias (hijos) así como de la diseñadora durante el período que duró el laboratorio.

Esta actividad nos permitió plantear una idea a futuro para nuevos encuentros entre el grupo de artesanas de la comunidad junto con la diseñadora. Esta idea puede entenderse como un compromiso de que ambas partes acuerden las acciones que una parte tiene con la otra, ese compromiso es en sí mismo la responsabilidad que se formó entre las partes creando un hábito de crear juntas, en el que la atención entre ambas ocurrió debido al cuidado que surgió y que precedió al compromiso existente hasta ahora. Al quitar una voluntad o anhelo del futuro, en el que se marca un compromiso y, por tanto, una responsabilidad, se está imaginando a sí mismo y respondiendo así al presente con las narrativas e historias del pasado. Así es como este compromiso que existe entre todos se puede materializar en el tiempo.

7. Conclusiones

La introducción de alimentos dentro de un laboratorio de diseño autónomo, significó un puente entre diferentes mundos: el mundo de las artesanas y el mundo de la diseñadora, haciendo que la convivencia fuese llevada con mayor naturalidad, ya que esto provocaba relajación dentro del grupo.

Conforme pasaron los días dentro del laboratorio y con la introducción de alimentos en cada día, se creó una rutina, que tuvo su ápice cuando esta fue interrumpida y para ser resuelta, fue tomada con iniciativa de ellas mismas (las artesanas) ejercer esa comensalidad y con ello ejercer su autonomía dentro del laboratorio, vivenciando así una democratización del espacio entre ellas y la diseñadora, la cual pasó a tener un papel diferente al de enseñar, sino un papel de mediadora de procesos, donde se introducían y retiraban estímulos (en este caso en específico el de los alimentos) que ayudaron a que las propias artesanas se posicionaran sobre como el laboratorio debería ser llevado, en caso de que alguna rutina (como el comer dentro de sus actividades textiles) fuese imprescindible.

Esto nos llevó a ir modificando el laboratorio y agregando nuevos espacios de tiempo entre comida y actividades textiles que generaran diálogos los cuales generaban nuevas preguntas, ideas y voluntades sobre los próximos talleres en el laboratorio, tejiendo así un laboratorio de diseño autónomo por medio de los tiempos de la comensalidad.

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Dancing with the Troubles of AI

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We are 4 creative ethic-ticians, working in the areas of design, fashion, arts and philosophy, making tools and spaces to inspire, drive, support and assess innovation responsive to societal and planetary crises, which we call *ethics through design*. We created this ritual to make time to be in our bodies, along with a team that includes musicians, performance artists, aikido masters, HIT trainers, sci-fi enthusiasts, and street dancers, to develop a transdisciplinary choreography. Together we have made a ritual to embrace the magical, illogical, delightful and laughable. We rehearsed with our bodies, protocols for anticipating, noticing, and addressing ethical tensions, to nurture a mindset of collaborative creativity and radical care. Beyond the duties of data management, privacy, justice, diversity, we aim to support abilities to design for “a world where many worlds fit”; capacities to respond to uncertainty with music, movements, and ethical doings.

Aperture



Our seed is a discontent - a sensation of futility - left by reflections upon the hard, fast, uncontrollable path humanity has taken into manufacturing another, data-driven, existence.

In our work with tech companies, we experience the shared tension that arises from the acceleration of technical possibility, from creating something really amazing, the potential of its benefits, the rush of the market, of getting further, of getting there first, the realization (or not) of human and environmental consequences. The inertia, the visceral call, “let me develop this and then we make it safe... then we make it legal, ethical, sustainable...” the temptation of the machine.

I grew up dancing to the drums of Caribbean rituals. Afro descendants from all countries and religions of Africa came to be together in plantations of America and the Caribe, creating syncretic rituals that had recognizable elements of their ancestors, but in their totality were anew. The rituals from my land, more than recalling home, or trying to press a hypothetical reset button, were trying to collectively imagine a better possibility.

Those cimarrones dances were none other than protocols to access the world otherwise.

Indigenous cultures all over the world have developed protocols to initiate, maintain and evolve relationships with nature and their communities. Computer scientists also use protocols for coding and programming. We used this ritual as an ethical AI protocol to, step by step, move by move, connect with each other, and stay with our troubles, calling for dismantling and reassembling AI for all. This is at the same time a celebration and a challenge:

That was the celebrant’s “aperture” of a ritual for ethical AI. We have co-designed and facilitated this ritual three times for groups of up to 90 participants. We are four creative ethic-ticians, working in the areas of design, fashion, arts and philosophy, making tools and spaces to inspire, drive, support and assess innovation responsive to societal and planetary crises, or what we have called *ethics through design*.

We structured the ritual around 12 movements from dawn to dusk, each movement representing an ethical value. We will share our outcomes and findings from our Research through Design, using the same value structure to present our reflections.



This document serves multiple purposes, all of which entangle with each other. It is a recounting of sorts, trying to tell the stories of designing a ritual for ethical AI. It is a manual, to help students, communities, and organizations, practice their own rituals, to embody other ways of knowing and doing. To help facilitate this, we have included further resources at the end of each section. At the

same time, this document is a call to scaffold civil disobedience. It is an opening up into radical terrain, an uncovering of needs to do worlds otherwise. We have been doing ethical consultancy for 5 years work using ethics through design with corporations, universities, and industry consortia innovating in new technologies for the fields of medical and disaster response, and sustainable energy. Drawing from that work, we are moving into a space where we think we need less ethics and more political action.

This is a place where we share our collective inspirations for Dancing with the Trouble of AI, in a way that is useful to others. We try as much as possible to avoid overly complicated ways of speaking, while contending with the often complex intellectual and literary influences that helped this ritual come to be. In one sense, the project of talking about this ritual is paradoxical. The whole point was to stop talking about ethics, and do it. The surprising, the unexpected and unpredictable enjoyments of doing the ritual came from its emotional and sensorial reactions, the part that gets you in the gut, that inarticulable place. Instead of trying to capture this inarticulable feeling with words, the following is a guide through the journey of the ritual itself, each of its values, their significance to the authors, and openings into other possible routes.

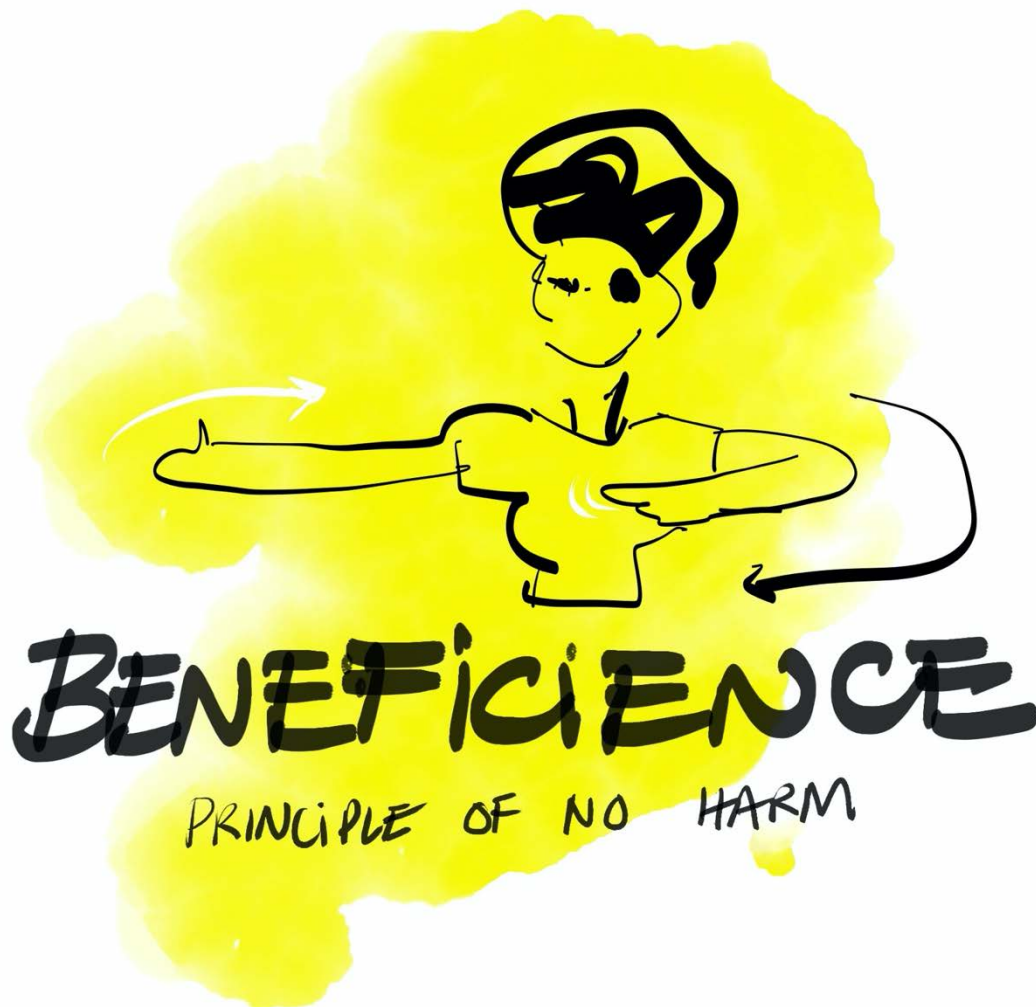
Writing this, the memories surge in, of how it came together, the unexpected circumstances that found their way into the process. And a through line, the pandemic, being locked indoors, locked into screens – now quickly becoming the new dysfunctional normal. We have all been disconnected, from each other, even from our own bodies. The ritual was a way to make space for connection, mediated by screens, but that could still touch something visceral.

The collaborators who made time, and the participants on Zoom, made something happen that wouldn't have, if we were just sat talking. We hacked the screen, the little portion of space usually accounting only for our heads and shoulders. As conflicting stories are told, about returning to offices, about perpetual online work lives, we try to claim the importance of making space, and making time, to be in our bodies, to feel as well as know, as Arturo Escobar calls it, 'sentipensar', or thinking-feeling. In our case, we thought-felt with the affordances of the Zoom screen.

The figure that sits through this ritual is the protocol. Protocols feature in the language of AI creation. They set the parameters of operation, they give instructions, and hence give form to the realities that AI creates. Protocols are also used by indigenous communities, as methods for accessing the world otherwise. We wanted to create a corporeal protocol to feature in the collective ideas of AI, given that some of the must of the abstracted AI decisions have very intimate and physical implications.

Further Resources

- A Is For Another: A Dictionary Of AI.
- A New AI Lexicon: Responses and Challenges to the Critical AI discourse.



A dread that is left from reading authors busy in the work of exposing ethical troubles of AI. The sensation, the bitter taste in our mouths, the thought:

If all of this is true, why do we want this to develop?

Less ethics more politics and even activism
Working against the realisation of ethics white washing and
the 3 millions fancy ethical frameworks.

Thinking about the benefits of something is not straightforward; as soon as one starts asking “the benefits for who? or for what?”, something deceptively simple shows its complications. If then we ask “benefits at the expense of whom or what?” we immediately enter into the complexities of ethics; what parameters are we using to decide what counts as good; economical, technical, cultural (what culture?) planetary, spiritual. But there is a point where ethics reaches a limit, when the question “what if something or someone is benefiting immensely (or even sufficiently to justify the cost) and others not?” what social power relations does this imbalance create, what inequalities are exacerbated?” Now we have entered the realm of politics.

The idea that we can make something good for all, that there is one universal way to create “the good”, is deeply tied to the Eurocentric model of modernity, based on techno-scientific innovation and that inherits its ideas of universality from Christianity. This model has been exported, or forcibly imposed, across worlds who may hold very different ideas of what is good or not. That is why something that is considered to hold benefits, so often conceals harms, exploitation, and violence, against peoples and places.

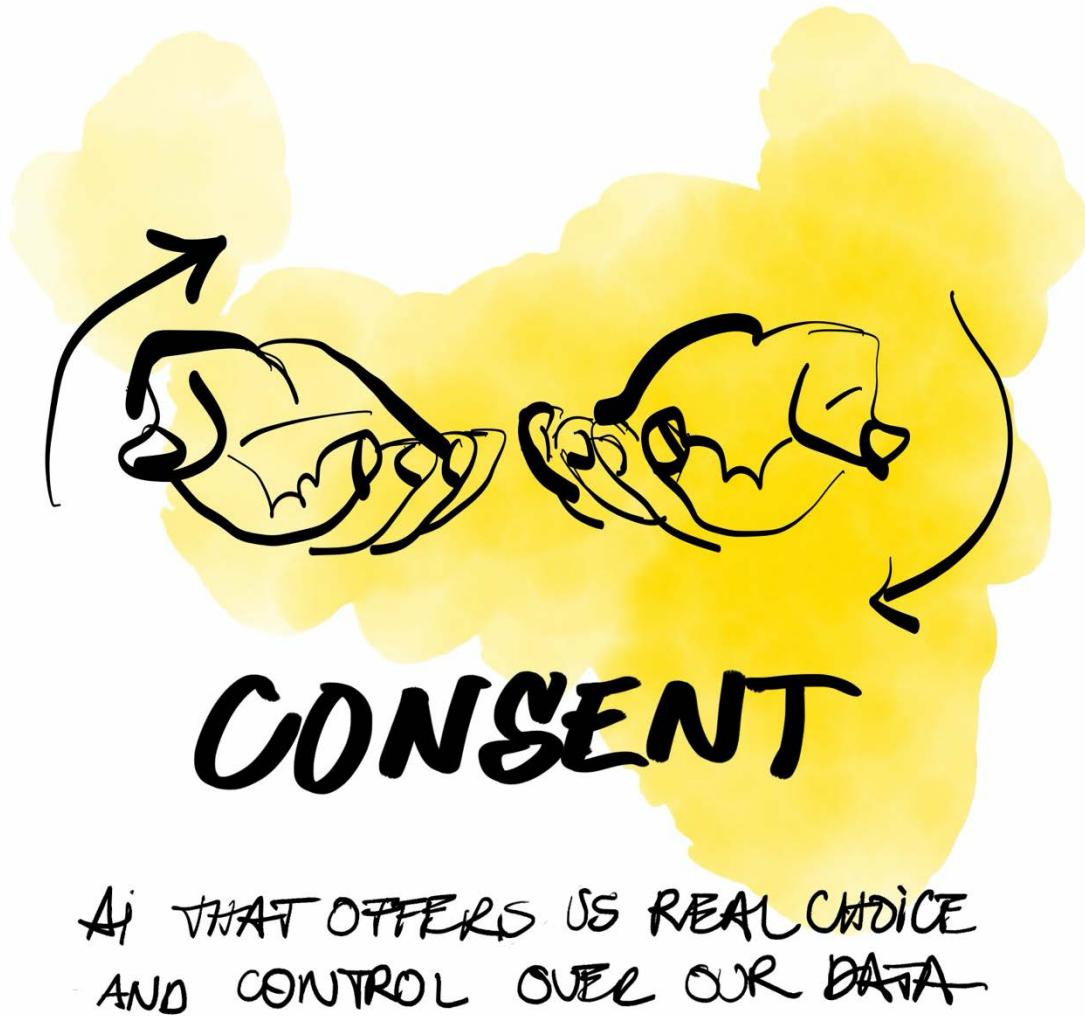
Beneficence is not, or should not be, a trade-off between benefit and harm. Benefits can be produced in all sorts of ways, and very often, there are costs to those benefits that are displaced to somewhere or someone else. The setup of the trade is already soaked through with vested interests. Instead, we are searching for wider meanings of beneficence, not just as temporary commercial or technological good, but as care for others, a desire for the good that is *felt*, rather than a calculable transaction exercise or turned into an intellectual token.

What if AI was not employed to make decisions on our credit score, but to monitor coastal erosion? What if AI didn’t keep a lone elderly person company in their house, but facilitated connections to others? What if the model of the AI user was not the isolated, egocentric individual, but the interconnected, compassionate, community member? There are methods for asking these questions, and when they are flexible enough, they empower voices to be heard in the arena of technological innovation. Ethical tools can be used ‘to engender debate over the extent to which social values are respected by a new technology (or whatever) and what might be the ethical implications arising from the application of a new technology’ (Wright, 2011, p. 201)

We must ask ourselves and our technologies, “is this all we want to do?” In this spirit, we look again at the ethical impact assessment, and turn it from a tick box exercise in liability, into a reiterative, contextual, creative, and yes, beneficial protocol. There is more than one way to be ethical.

Further Resources

- Amaro, R., ‘Atlas of Anomalous AI’ podcast, available at: <https://soundcloud.com/ignotabooks/atlas-of-anomalous-ai-ramon-amaro-rana-dasgupta-and-yuk-hui>
- <https://www.isitethical.org/key-terms/>



If we were all attending a conference in person, and I was vegan for political reasons, no one would make me eat the ham sandwich, however we have no space to refuse unethical data-driven systems in work or in life.

This ritual was an exercise of scaffolding civic disobedience and claiming meaningful consent.

Consent forms are not enough!

The algorithmic systems that we interact with, and the data silage that nurtures them, demand our care – our ongoing engagement with their construction and maintenance, but give us little opportunity to examine that caring contract, our place is within it, what we might want or need, and certainly no means by which to adapt it.

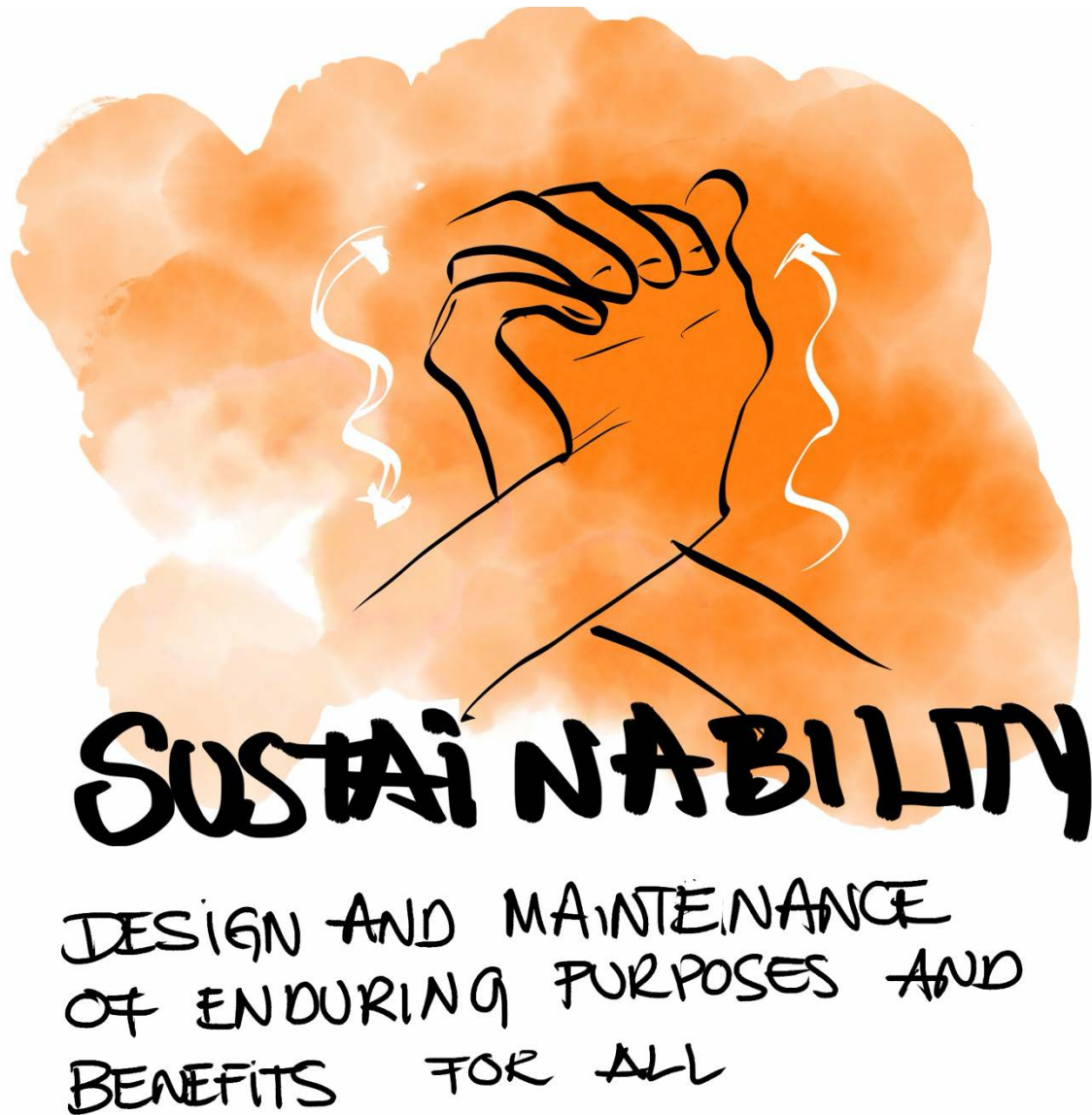
Each AI system offers a limited aperture of engagement, with it and thus with each other, fragmenting our complex, interconnected, embodied relations into more easily-digestible, datafiable formats. The commercial purpose of algorithmic systems is obscured, our connections to each other now colonised, the ways in which we pay for them hidden in interminable terms of use statements that no user reads.

Opportunities to exist outside of the emerging algorithmic techno-realities are rapidly vanishing - to choose not to use these systems is to banish ourselves. What then for the aspirant non-user? How can we meaningfully consent when data-colonialism has vanished and vanquished all other possible choices, realities and existences?

The power of consent lies not just in its affirmation. In addition to this, having the space to consent means having the space to say no. It is this power to say no that is at risk in the most extensive exploitations that AI carries out. Data-colonialism refers to the world's saturation with data flows, but also to the communities and planetary spaces whose power to say no have been erased.

Further Resources

- Clarke, R. (2007). Introduction to dataveillance and information privacy, and definitions of terms, Aug. <http://rogerclarke.com/DV/Intro.html>



Our fuel is the desperation of screen-saturation and lack of connectedness that this weird year has set in our bodies, so many things happening, and us, seeing each other framed by little screens...

Carbon intensity of online connections. How not to die in another ethics webinar.

The physical/mental intensity and many varied costs of digital existence. The impacts this way of living has upon the earth and nature, including ourselves as interconnected nodes in the ecosystem.

The ways we manufacture and use technologies currently, come with huge environmental and human costs. A goldrush tends to happen, where a new innovation is given infinite green lights, to pollute, to extract data, to displace peoples, and to bypass regulations, if such regulations even exist. As Crawford and Joler point out, 'at every level contemporary technology is deeply rooted in and running on the exploitation of human bodies' (2018). Even the efforts to mitigate the planetary harms, reducing carbon emissions of AI are funnelled through the same logics that created our current crises.

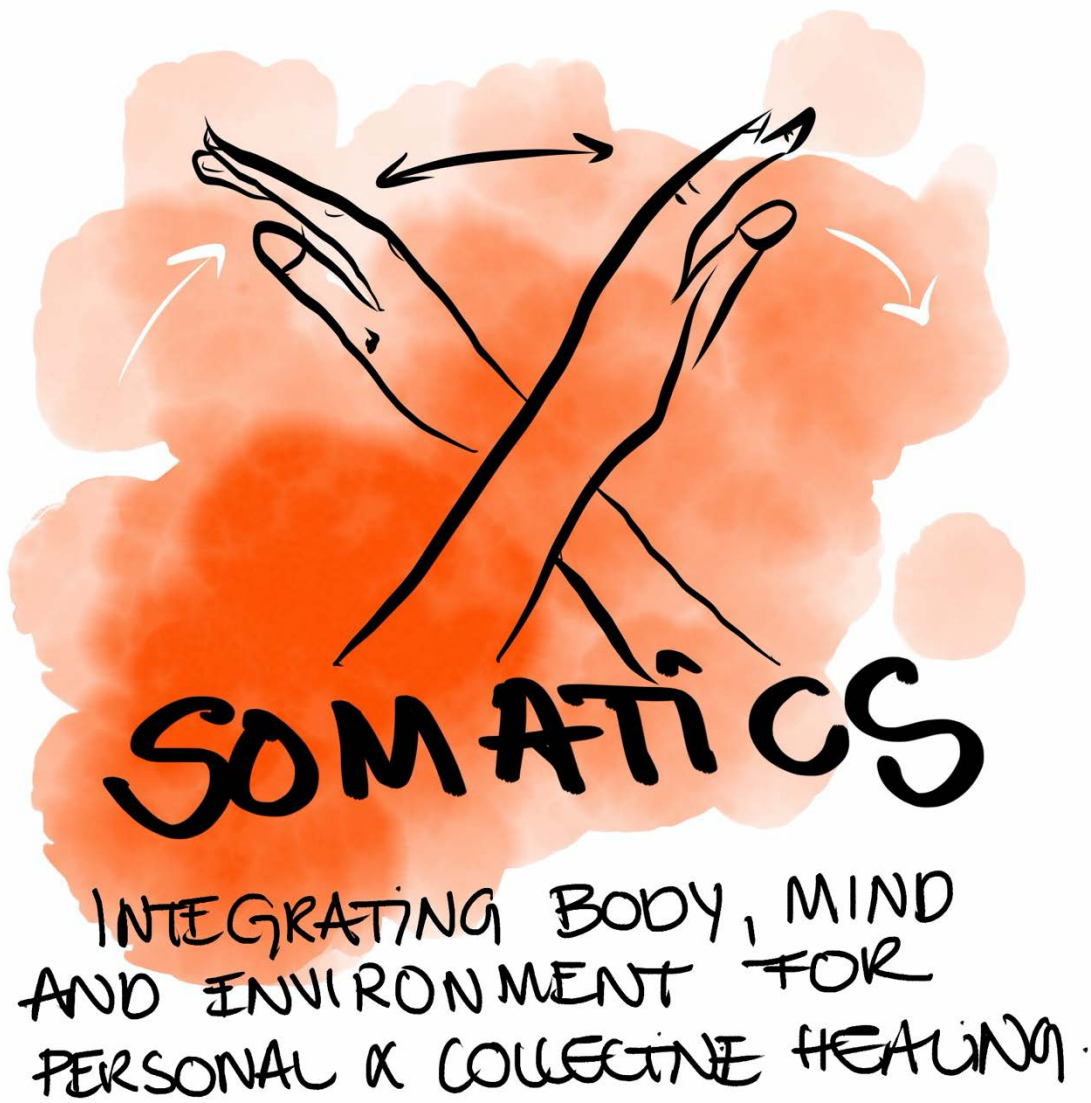
And yet, I have no choice but to let Microsoft mediate my professional interactions. We are being forced to collectively investigate the sustainability of our online lives, the impact on our mental health, our connections to others, and the kinds of realities we seek and experience.

Making something sustainable is about more than mitigation. A whole nexus of interactions, infrastructure, and procedures are at play, and not every part is equally visible. Quantifying carbon emissions is an increasingly hard task that, ironically, only an AI could do. The carbon footprint of a single machine learning network depends upon 'the location of the training server and the energy grid it uses, the length of the training procedure, and the hardware on which the training takes place' (Dhar, 2020, p. 424). The supposed neutrality of carbon intensive AI creates a spiralling situation, in which an 'exponentially larger model is required, which can come in the form of increasing the amount of training data or the number of experiments, thus escalating computational costs, and therefore carbon emissions' (ibid., p. 425)

Tweaking existing models of production and usage cannot be sufficient, and can lead a supposed green initiative to conceal greater planetary abuses. We must reconceive our collective relationships to the earth, to its ecosystems, and its materials.

Further Resources

- Crawford, Kae and Vladan Joler, "Anatomy of an AI System: The Amazon Echo As An Anatomical Map of Human Labor, Data and Planetary Resources," AI Now Institute and Share Lab, (September 7, 2018) <https://anatomyof.ai>



Responding with our bodies to hidden labour that AI exploits.
Translating concepts into the body, embodying values

Exploring other ways of knowing – epistemological shake up!

Our embodied experience is subjective, and thus not something that can be accessed, interpreted and synthesised (known) by algorithmic systems. The “us” AI systems seek to know emerges out of our choices within heavily redacted communications, reducing us or the totality of the knowable, to that which the system can parse. Subjectivities are not just narrowly read but narrowly produced, AI is generative of behaviour which soaks beyond the confines of the machine. Basically, AI system only “talks” in algorithmic language, every bit of us that cannot be captured by this language is missed out.

Reflecting on these systems through our bodies can help us to explore more holistic, communal and sensorial ways of knowing and open up new opportunities for collective resistance and imagining of alternate possibilities. Somatic practices bring us into a space of connection, both with our own bodily experience of AI, and with the bodily exploitation required to sustain its production. Through this embodied reflection, we make moves towards a more hopeful prospect, to figure out ‘how we might sail the sea of cyberspace as a means of dreaming forth a future’ (Lewis, 2014, p. 58).

How can we use our bodies differently, and redirect protocols of oppression into protocols of liberation and collective imaginaries? The designers of technologies do not just design the functions of a system, they ‘design the protocols of knowing through which culture operates’ (ibid, p. 61). Keeping this in mind, we seek spaces for voices all the way through, so that communities, especially those who are so often overlooked or actively exploited for the purposes of AI, have a say in the way technologies are dispersed in their communities.

Further Resources

- Lewis, J.E. (2014) “A better dance and better prayers: Systems, structures, and the future imaginary in Aboriginal new media” in S. Loft & K. Swanson (eds.) *Coded Territories: Tracing indigenous pathways in new media art* (pp. 48-77). Calgary: University of Calgary Press
- <https://www.ritualdesignlab.org/about-ritual-design/#rituals>



It was not a dance, we designed a human algorithm

Seeing the code is not enough.

Transparency is not neutral: whose transparency is it?

Transparency of the politics and economics, as integral and governing elements of the system; transparency of the relations human to human through systems.

Transparency is becoming a fashionable item in technology developers' lexicon. Companies promising to be "transparent" about how they collect data, goes hand in hand with regulatory efforts to ensure people know what data is collected about them and where it goes. As Benkler notes, industry has mobilised a commitment to upholding ethical, legal, even moral values in producing AI (2019, p.161). The appearance of ethics boards in corporate infrastructure, alongside multi-national commissions producing guidance on "ethical AI", suggests that AI industries want to be transparent about their practices

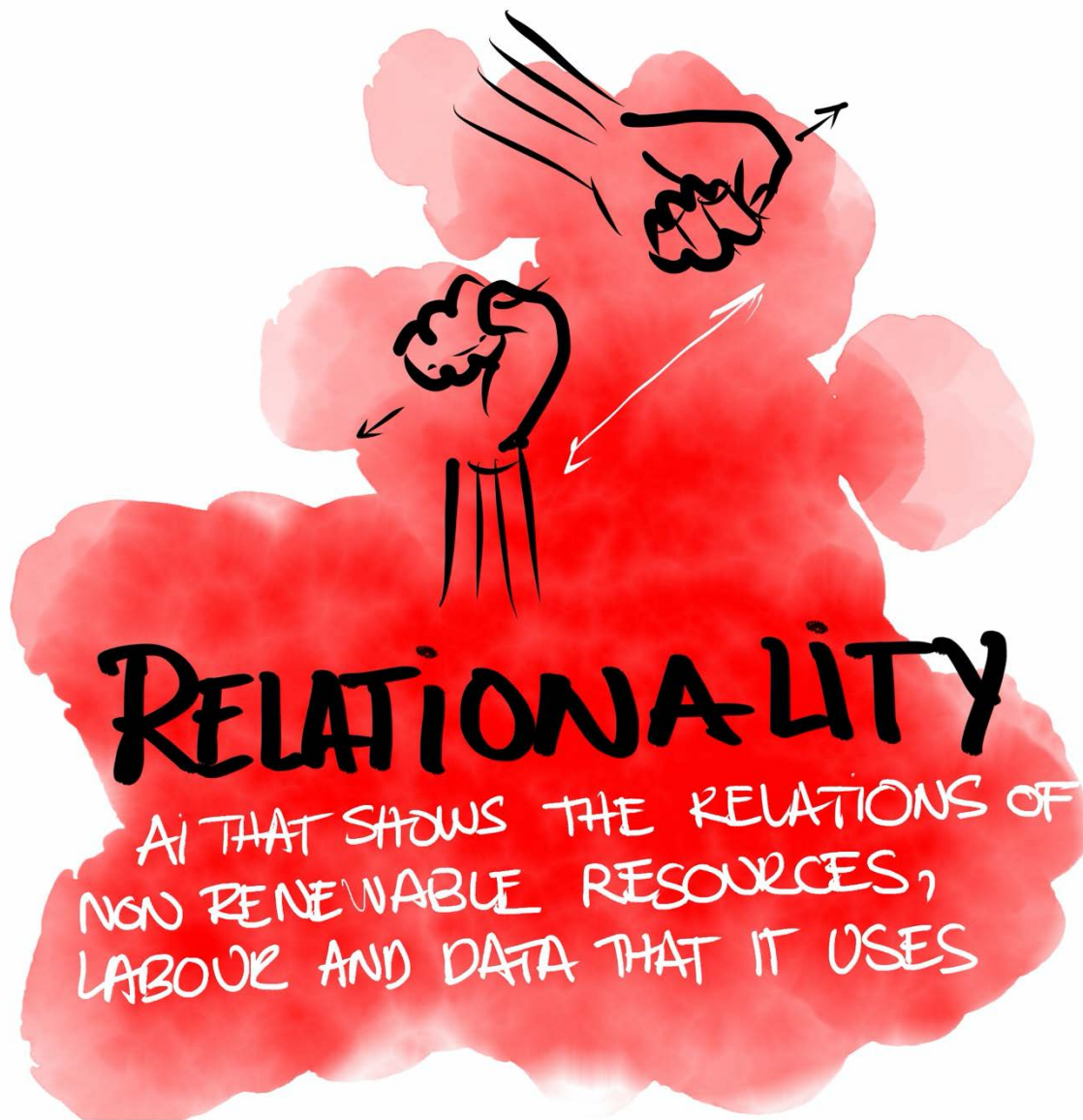
This is only one dimension of transparency. Benkler warns that the exercises of good faith by AI developers run the risk of closing down real responsibility and spreading it across a multitude of co-dependent systems, and with that eroding the power of accountability. AI industries 'cannot retain the power they have gained to frame research on how their systems impact society or on how we evaluate the effect morally'. When AI production is reduced to the profit motive, 'algorithms necessarily diverge from the public interest' (ibid.).

It matters whose transparency is being offered. There are various "under the hood" options which show you the inner workings of certain technologies, but these mean very little unless you are trained in computer languages. Transparency therefore requires trust, and vice versa. AI practices have to be open *and* understandable. This is where public bodies are essential as mediators between companies and people

As well as transparency about data, what is required for ethical AI is transparency of relations. What are the connections between the product and the labour needed to assemble it? What parts of the world are affected by the making and use of this technology? Whose data is being used in gigantic data training sets? Exactly where does the AI agency end and a human or cooperative start? What algorithmic relationships are being created by this AI, and where are they placed in the socio-political spectrum of life?

Further Resources

- Free Online Course: Elements of AI [Online course via Google Digital Garage]. (n.d.). Retrieved from learn.digital.withgoogle.com/digitalgarage/course/elements-artificial-intelligence.



Metaphysical Nexus: what it means to be human
Celebrating more-than-human co-dependence

Echoes from the future
and from faraway prophecies: the fantasy of AI

We are made of relations. AI is no different. All too often, however, those relations are concealed, made invisible, dismissed as unimportant. But the relations we hold between each other, the worlds we live in and create, and the technologies we use, create a living nexus, which sustains so much of what we do. Crawford and Joler's project of mapping a single Amazon Echo device shows in vivid detail how expansive the map of relations is that sustains AI in everyday life. As they put it, 'each small moment of convenience – be it answering a question, turning on a light, or playing a song – requires a vast planetary network, fueled by the extraction of non-renewable materials, labor, and data.' (2018).

Crawford and Joler's work makes up another network of people researching and making visible these planetary-scale relations upon which we rely. Making visible is one part of the task. Instead of starting from the human, positioned at the top of the chain, visiblising relationality shows our place in a horizontal network of protocols, decisions, labour, and data exchanges. We are all enmeshed in a more-than-human co-dependence, which can be empowering, but also demanding. We are not the centre of the universe, and even what we consider to be "us" is conditioned by cultural, historical, and political factors.

What we do share in common, however, are the vast data trails and exhausts produced by our daily interactions with technology. We are both consumer and consumed. Using an Amazon service creates a vast network of actions and procedures. The warehouse worker who is tasked with locating and boxing the item, the labour rules that allow Amazon to constantly monitor its employees, the factory that produced the item in the first place, and the algorithms working in the background to track, learn from, and feedback your consumer preferences. AI creates new realities of connection and isolation, new flows of information, new ways of conceiving our relationship to the world, of what it means to be human. Rather than leaving relationality in the traffic of datafied existence, we can, in addition, recognise our connectedness to others, and to the planet that sustains us.

Further Resources

- Crawford, K. (2021). *The Atlas of AI*. Yale University Press.



This is our response to “it’s not my domain” syndrome

Demanding accountability to the corporate almighties
Care for the human connection, figuring the value constellation.

Accountability means being answerable for one's choices, actions and expectations. It also applies to how answerable services and systems are and how these should 'account for' their affordances in intelligible ways.

Who or what is accountable?

AI is redefining concepts that were long thought resolved. Just how can an algorithm be accountable, and to what? Does a program made by humans have accountability for its decisions? Can the link between AI decision and human reason be maintained as technology becomes more autonomous? Who is accountable for the autonomous drone that shoots the wrong person?

How are we accountable when the stakes of our lives shift into automated systems? To start addressing this shifting landscape, we begin with the narrative that AI is, and must be, entwined with trust and care. We accept the necessity of our being vulnerable, of opening possibilities that we cannot fully predict. At the same time, we demand that those links we make to AI, be worthy of trust, that we care for them and that they care for us. In the midst of massive corporate control of AI innovation, the task ahead is to bring this back down to earth. To do so with care, according to de la Bellacasa, is to engage in 'a manifold range of doings needed to create, hold together, and sustain life and continue its diverseness.' (de la Bellacasa, 2017, p. 70). Included in this diverseness is a recognition that AI does not necessarily care in the same way we do. Holding AI accountable means opening new domains, and new ways of doing care.

Further Resources

- Kate Crawford and Trevor Paglen, 2019 'Excavating AI: The Politics of Images in Machine Learning Training Sets' www.excavating.ai.
- No Justice, No Robots: An Open Letter From Robotics Researchers. Accessible at: <https://nojusticenorrobots.github.io>



We were inspired by Ritual Design, Donna Haraway, Ethics of AI, Data Feminism, Cyberqueer Movements, Lesbian Technologies for Liberation, Indigenous Protocols for AI, the point was not to talk about ethics, but rather to embody it.

Against binary differentiation

Among Indigenous North American culture, Two-Spirit refers to individuals whose spirits are a blending of male and female spirit. Two-Spirit is essentially a third gender recognized in many Indigenous cultures. (Pasca et al. 2020)

The Two-Spirit value refers to gender but it goes beyond, to do with inclusion and representation. Complicating, entangling and problematizing binary differentiation: male/female, West/East, North/South, right/left, pros/con, etc. can help challenge other hierarchical (and empirically wrong) classification systems. To enter in the binary way of thinking does not just accentuate polarizations (injustices and violence) but also invisibilises (enslaves, colonises) all the spectrum in between, that is chaotic, temporal, simultaneous and contradictory.

It also refers to codependence and entanglement - life, emotions, weather, histories, realities, imaginations and even futures are so much more than static data. Barad (2007), has named this intra-action, a term that we like because it considers the inseparability between objects, peoples, ideas and systems.

In terms of designing AI, we propose a move from “interaction design” to political intra-action, because it opposes the one directional mode of ‘interaction’ - a human tweaking its pre-existing, inert, neutral things. Intra-action emphasises humans and things (nature, dreams, communities, values etc.) becoming together through on-going productive encounters. That cannot, and is not, considered in the binary programming system. This is a call to make emphasis not on the force of the relation in between (humans and data), but on the power within the infinite possibility of becoming in the encounters with the difference: gender, race, politics, age, nationality, etc.

The shift from interaction to intra-action is an urgent one, while we don’t transition to a different discourse that informs classification systems there will be little room for data justice, and so we quote Audre Lorde, who wrote with more beauty and passion:

‘What does it mean when the tools of a racist patriarchy are used to examine the fruits of that same patriarchy? It means that only the most narrow parameters of change are possible and allowable... survival is not an academic skill. It is learning how to take our differences and make them strengths. For the master's tools will never dismantle the master's house.’

Further Resources

- D'Ignazio, C. and Klein, L.F., 2020. Data feminism. Mit Press.
- Cyberfeminism Index
- <https://www.accessnow.org/how-ai-systems-undermine-lgbtq-identity/>
- <https://designjustice.org>
- <https://www.queerfutures.com>



We designed a call for collective power in the face of one-worlding
data colonization

Thinking-feeling through our borders

Sovereignty refers to the ability of anyone to have control and ownership over their own data. This requires systems to be able to identify and verify data's geolocation. This value is about asserting control over the AI systems that we are using. Only with meaningful forms of control can we trust systems to support us in carrying out our responsibilities to our communities. It includes ensuring that AI systems respect territory—and the languages, accents, abilities, and cultures from specific lands that may or may not be part of nation states— requiring them to help us care for our own land. It emphasises hyper local practices, cultural requirements and needs. This value includes how AI owners and development corporations distribute not just benefits, but also revenue, amongst the people whose data they use.

It is to do with broad challenges of cross-border clouds that include technical, legal, social, and epistemological complexities. And so, it requires legal and technical facilitators but also IT architectural transformations, research, and social discourse. In addition, in order to cultivate data sovereignty, intense study of the way localities organize knowledge, will require deep study of language, history, social relations, and customs, for this value would require us to build social and critical as well as technical capacities. These go beyond efforts to open-source IT practices and that account for the privilege required to afford the skills necessary to exercise the right of sovereignty.

Further Resources

- Duarte, M. E. (2017). Network sovereignty: Building the internet across Indian Country. Seattle, WA: University of Washington Press



Making kin with the machine

Practicing the pluriverse

This is much influenced by the work of Jason Edward Lewis (we recommend to see his work if you are not familiar, it is very practical and absolutely inspiring <https://jasonlewis.org>), and particularly an article he wrote with Noelani Arista, Archer Pechawis, and Suzanne Kite (2018).

This value focuses on the idea that humankind is neither at the centre nor the highest point of creation. This belief is central in traditional knowledge, indigenous epistemologies and more-than-human frameworks, and see central kinship networks of codependency with other forms of beings, human and more-than-human. Indigenous cultures and cultures whose communion with nature forms their identities (farmers, agriculture, fishers) have protocols that allow them to create dialogues, mutually intelligible, with non-human kins across different materials, vibrances, times, possibilities and taxonomies. This principle talks about informing practices of designing, regulating and using AI systems using protocols that are mutually intelligible for the machine and us.

In addition, this is a value that really questions visions and fantasies of human-almighty and machines-slaves or machines taking over humanity; ideas of AI taking over jobs and replacing humans at emotional, spatial, and ontological levels. The AI as *skabe* or helper -advisor, an entity of wisdom- requires a relation with humans of care and support. It evaluates how AI systems use human resources (labour and data) and environmental resources. This value proposes to understand and assess AI systems according to its benefits for all.

Further Resources

- <https://jasonlewis.org>
- AI DJ - A dialog between human and machine <https://vimeo.com/259129367>
- <https://medium.com/qosmo-lab/ai-dj-project-a-dialog-between-human-and-ai-through-music-abca9fd4a45d>



Decolonizing Euro-centric Ethics
Exploring other ways of doing ethics together

This value uses post-colonial and decolonial theories, in understanding and shaping the ongoing advances in artificial intelligence. It supports abolitionist movements that resist and fight to end policing, criminalization, and carceral logics and technologies in all their forms.

“The growth of community-controlled technologies, of mutual aid and care support networks remind us: surveillance, prisons and police don't keep us safe. We keep us safe. Queer, Trans, Two-Spirit, Black, Indigenous, and People of Color communities are disproportionately impacted by surveillance and criminalization at all levels—from the state-endorsed to the corporate-led”. (Emmer et al. 2020)

We honor and are grateful for the legacy of abolitionist activists, organizers, and policy writers, whose work has challenged us to imagine transformative responses to injustice. Safety and security narratives are used to justify mass surveillance and community controls, eroding human rights by criminalizing and marginalising minorities and in general those who do not fit with the system's narrow parameters.

For example, in recent months, as a response to the COVID-19 pandemic, governments have begun using contact tracing technology—the use of personal location data on cell phones—to track the virus. Without safeguards, this technology can be repurposed to further surveil and repress organizers, particularly at protests.

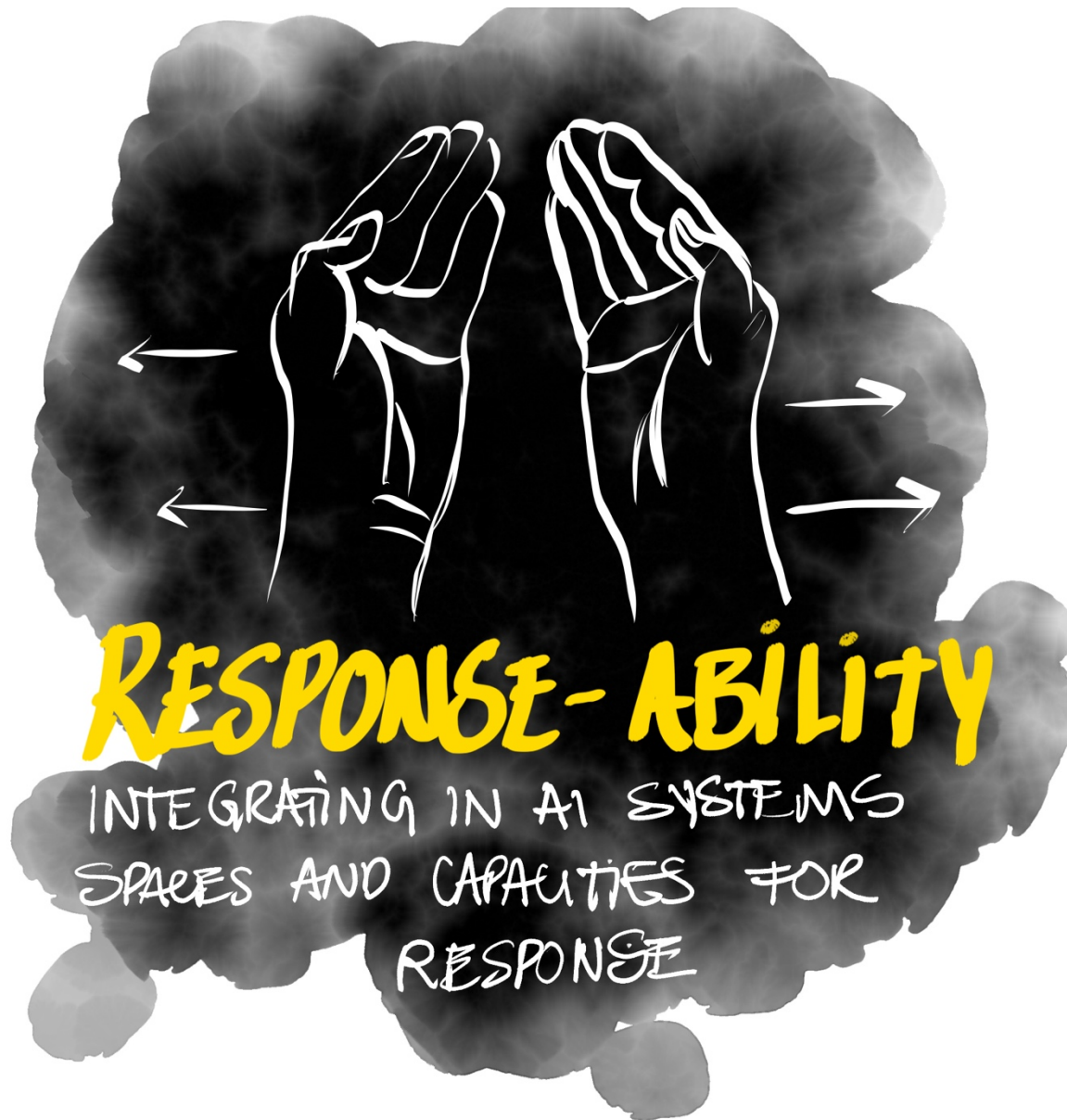
Internet shutdowns in countries of Latin America and Southeast Asia in response to COVID-19 are further examples of the ways in which governments have co-opted technology to repress citizens, exacerbating inequalities in accessing timely health and other critical information.

Some of the proposed actions are to call for public and private investment in abolitionist technologies - creative interventions that use art, media, and performance to galvanize public support against state-backed surveillance; to fund community technologists and community political theorists in creative critical-technical practice of AI; to invest in healing justice - by seeking reverse tutelage and reverse pedagogies, and, emphasising community distributed safety protocols, rather than individual, to renew affective and political communities.

Basically, this is a political call for human rights, spaces and tools to meaningfully express concern and reject consent.

Further Resources

- Lewis, Jason Edward, ed. 2020. Indigenous Protocol and Artificial Intelligence Position Paper. Honolulu, Hawai'i: The Initiative for Indigenous Futures and the Canadian Institute for Advanced Research (CIFAR).
- Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence (Jul 2020), Mohamed et al



Making Space and building capacities to respond.

Imagine a better possibility of both AI and pluriversal ethical practice that is creative, participative and a political exercise.

We are joining the sortilege of Donna Haraway's (2018) neologism of *response-ability* (p.p 128-133) to propose a pluriversal ethical practice that comes through the encounters with others, and that uses art thinking and creative practices to drive this collective through designing vehicles for transition, political resistance and disobedience.

We are trying to push the field of Responsible Research Innovation out of academia and out of the corporate ethical committees, into public realms, to find voices, ways and protocols to respond to this AI that is happening to all. It is about being radically careful and carefully radical (Latour, 2018) to integrate in innovation processes abilities and spaces for public response. In other words, it is not just about a duty of equality, diversity, inclusion, but beyond that, the ability to respond to uncertainty and collectively imagine, considering and rehearsing better futures.

In collective and participatory creative engagements, particular worldviews, principles, and positions are at play, these values otherwise covered, hidden, ignored or assumed, emerge palpable and in a safe space to be learned, discussed, and reflected upon. Part of this principle builds on ideas of contextual and participatory ethics (Luján Escalante et al. 2019b) and *ethics through design* (www.isitethical.org).

Response-ability requires more than theorizing and designing to key performance indicators. It calls for practicing ethics together, conscious and careful with a plurality of ideas about beneficence from the many worlds that coexist across the globe. It requires more than training and teaching but actions that inspire and connect people emotionally. We propose to encompass ethical conduct with building capacities for anticipating, noticing, unveiling and addressing ethical tensions, to facilitate processes that go beyond the box-ticking exercise and administrative procedures.

Further Resources

- <https://rosanbosch.com/en/journal/learning-inspired-%C2%A0mar%C3%ADa-acaso%C2%A0creativity-and-art-thinking>
- PhEmaterialism: Response-able Research & Pedagogy
- Moffat, L and MA Luján Escalante Response-ability summit video
<https://vimeo.com/558900659>

Provocations

There is little to conclude because we are only at the beginning. There are countless worlds of doing ethical AI which are yet to be explored. The values that we danced with do not constitute an exhaustive list. There are many other values to be voiced, felt, embodied. What we wish to encourage is a scaffolding of civil disobedience, a call for other ways of knowing, other values, to claim space in the global picture of AI production. There must be avenues laid down for communities to decide how AI technologies are sold to them. Included here in the map of plural worlds, must be avenues of saying no, not because of naive technophobia, but as a preservation of peoples' ability to mark out the conditions of their own living.

We aim to stay connected, or show the already living connections, that we share with nature, and with planetary processes. These processes currently fuel our experiments into AI, but at huge cost, designed in a way which is unsustainable, and unjust. The structure of our fortune in accessing the world otherwise relies upon the plural, on difference, and continually working against the protocols of One-World Worlding (quote).

Through this ritual, and our reflections on its own protocols, we hope to have provided ground for your own explorations, your own rituals and embodyings.



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Narrative-based human–artificial collaboration. A reflection on narratives as a framework for enhancing human–machine social relations.

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This paper aims to reflect on human–artificial intelligence (AI) collaboration in cultural production and depicts the collective socio-cultural imaginary focusing on humans' intrinsic vulnerabilities related to AI systems, which are often perceived as a way of reshaping human presence within contemporary society. Abandoning an anthropocentric perspective, contemporary ecosystems should include non-human and AI systems. Our hypothesis states that their interactions could be reshaped by adopting a narrative framework. Since humans are social animals, if the power of stories is used for embracing plurality', sociality can be extended to include AI systems. Considering such premises, relationships between humans and AI may also enrich existing relational ecosystems with new meanings that challenge and redefine the limits of what is considered socially acceptable. The result is an integration of narrative tools and world building practice within interaction design processes. Storytelling can be intended as a mindset and a tool, underlying the crucial role of narratives in supporting the emotional dialogue among humans and AI systems, creating an overall sense of belonging between human and non-human actors.

Interactive digital narratives, Micronarratives, Human-AI collaboration, Communication Design

1. Introduction: context and topic

We live in a world where change is dictated by rapid technological progress in which artificial intelligence (AI) can replace much of human work in a few decades (Frey & Osborne, 2017). Due to the evolution of

the machine learning system (Cramer, 2018), as well as the integration of AI with recent emerging technologies (e.g., Industrial Internet of Things (IIoT), big data analytics, cloud computing, and cyber-physical systems), AI is described as the fourth industrial revolution (Lee et al., 2018).

The awareness of having grown up in Europe in a context where time is marked by technological acceleration leads us to reconsider the current anthropocentric vision, where machines have to be at the service of humankind. Taking into account the forceful emergence of transition narratives and imaginaries (Escobar, 2018), as a group of women with democratic values and researchers in the field of design for social innovation, we bring our vision, fueling the debate on the transition discourse. In this essay, we prefer to speak of "human beings" precisely because we assume that all the variegated forms and declinations of humanity must be included in processes of interaction with AI. The overarching approach can be described as post-anthropocentric. In this perspective, people co-exist and interact with AI entities, moving away from decolonization seen as an anthropocentric bias (Salami, 2020). AI systems will not be considered a tool to be exploited to increase productivity but as an entity to collaborate to process data in a qualitative and non-standardized way. Our approach does not focus on exploiting the so-called 4.0 era, but on the relationship that is triggered between human beings and technology and how this relationship relates within the current social ecosystem, which is in transition and constant innovation.

According to Koenitz (2018) the work on earlier computational systems goes back to the 1960s, while analytical and critical research on the PhD level dates back at least to Buckles's 1985 thesis. There is a fragmentary and sometimes confused body of knowledge, for this reason there is an urgent need of an institutional framework for guidelines to be created, adopted, and further developed (Koenitz, 2018). In fact, this paper will introduce the hypotheses of a narrative framework we are working on and that we want to apply to an AI system, with the aim to test it through prototyping activities in the near future. The existence of artificial entities in narratives is not new: the myths of the golem and Pygmalion's statue are just two of numerous examples from classical literature and science fiction. Contemporary fiction provides manifold images of living and collaborating with autonomous and semi-autonomous systems. It has inspired social robotics through exploring the social dimension of the human mind as a process of learning and growth (Dumouchel & Damiano, 2019) in collaboration with both technical artefacts and the environment (Damasio, 1999).

Social robots are systems composed of sensors, actuators and artificial intelligence (AI) 'for which social interaction plays a key role' (Fong et al., 2003). The aim of social robots is to interact with humans. Thus, people interacting with social robots tend to have high expectations regarding the types of possible interactions because of the imaginary promoted by science fiction. Well-known examples include Isaac Asimov's robots and incorporeal entities such as Samantha, the AI system in Spike Jonze's 2013 film *Her* with whom the protagonist (Theodore, played by Joaquin Phoenix) falls in love. The last 20 years in the field of research and design of social robotics has witnessed a paradigm shift from humanoid social robots based on anthropomorphic or zoomorphic forms (Mokhtar, 2019) to actuated and performative environments (Greenfield, 2006) acting as living organisms. The developments and reflections that have emerged from studies in different fields range from human-robot interactions to interactive physical environments, including adaptive environments, intelligent environments, interactive environments, cyber-physical environments and architectural robotics, because 'spatiality deals with direct interaction between people and real or virtual artifacts' (Zannoni, 2018).

The depicted situation brings the urgency to reflect on the human-AI system collaboration relationship. In doing so, the concept of pluriverse can be seen as a pattern of signals indicating an emerging culture and civilisation (Manzini, 2015), that leaves people behind narrow anthropocentric notions of progress based on economic growth (Kothari et al., 2019). Pluriverse can also be considered as what Murray (2018) calls a "Kaleidoscopic view", through which presents the same story from multiple points of view and

within multiple cultural and social patterns of cause and effect. The meanings that emerge are connecting and expanding, without the possibility to trace boundaries, and resulting in interconnections that bring again to the concept of pluriverse and the difficulty in handling the research. The result is an opening in the debate on the co-existence of social ecosystems. When we are talking about the social ecosystem, we imply the possibility of the co-existence of human, non-human, AI entities, and transhuman, which is considered the improvement of humans by technological means (Coeckelbergh, 2013). When we decide to work on Human-AI system collaboration, we start by exploring the broad context of AI discipline, with the risk of losing the focus of the investigation by figuring out how an AI system could work. Then we realize that there is a lack of awareness about AI systems' potential today, and often the expectations are higher than what is possible to do with such systems. This is partly due to the dystopian science fiction imagery, which created scenarios linked to existential risks of AI systems that narrate about superintelligent machines capable of overcoming the human mind (Bostrom, 2017).

Assuming that stories are about people (Crawford, 2013) because they are generated from and simultaneously generate human cognitive patterns, we question whether artificial beings such as social robots or intelligent environments can create and tell meaningful stories and how we can train AI systems to dynamically engage with humans in mutual interactions. In line with *Ethics Guidelines for a Trustworthy AI* established by the European Commission (2019), this paper aims to investigate aspects that designers can consider in order to generate beneficial mutual interactions between AI systems and human beings in physical or virtual environments. In questioning whether narratives can be used as a framework for enhancing human-machine social relations, our analysis refers to historical and recent academic research (Iaconesi & Persico, 2017; Minsky, 1988; Riedl, 2016) and case studies that have explored human-machine dialogues.

The first part of the paper addresses the question: *Is it possible to create a trust agreement between humans and machines?* To answer this question, it is crucial to understand the characteristics and limitations of AI systems, especially when they collide with images promoted by science fiction. In exploring the trust agreement and its features, we also address the crucial point of transparency. AI systems must be able to collect, handle and store user data with care, and there should be transparency about who can access the data and why, while acknowledging ownership of the data (Piet, 2020). Moreover, transparency also refers to the affordances of the media, interfaces, and environment in supporting the process of dialogue (Manovich, 2001). Specifically, our design-based approach could further enrich the analysis and the design practice within human beings-AI systems' IDN processes. The second part of the paper addresses the question: *Can we train AI systems to manage social and emotional interactions with human beings through the narrative framework?* The aim of this question is to highlight and propose original reflections about whether human intervention is crucial for the development of emotions and determining an overall sense of story.

2. Science fiction storytelling and the imaginary regarding AI systems

Fictional storytelling plays a crucial role in expressing *what if...* scenarios. Writers explore what might happen to individuals and societies in different events or when different choices are made at crucial moments. Science fiction is particularly relevant when exploring human-AI interactions, and numerous scientists are counted among its authors, many of whom use narratives to reflect on the consequences of their work. The science fiction world presents a number of possible scenarios ranging from highly optimistic to darkly negative, and the spectrum between these extremes offers useful reflections for designers (Varisco et al., 2017).

When searching for AI systems in fiction, Isaac Asimov stands out with his numerous novels depicting a future in which anthropomorphic intelligent robots exist. In Asimov's fictional worlds, humanity develops

a polarised relationship with robots, which are irrevocably necessary to the lives of the Spacers but become their major weakness and eventually cause their decline, thus becoming the nemesis of the second wave of Colonists, who reject them as the source of human laziness and loss of free will. This conflict has been depicted in other storyworlds as well as in contemporary debates about trust in AI systems. Asimov's robot R. Daneel Olivaw, in particular, plays a long-lasting role in human development throughout the *Foundation* saga and is finally depicted as a superhuman entity who protects the fate of the human species. This vision of AI systems as a source of salvation is considered a reality in a society that is becoming increasingly complex. Other examples of positive AI systems in the literature include William Gibson's Rei Toei (Gibson, 1996), an incorporeal singer who handles her own show business and marries her human partner, sparking debate about civil and legal rights for non-humans. While Rei may not be widely recognised, the more recent Samantha, the AI virtual assistant represented in the film *Her* (Jonze, 2013), is better known. Samantha is an incorporeal system that continually interacts with Theodore, the human protagonist of the movie (played by Joaquin Phoenix), in all situations and locations. These interactions in different locations represent an interesting case of the interplay between AI system and the environment—Samantha helps Theodore, who eventually falls in love with her, depicting the potential strength of emotional relationships with non-human entities and emphasizing the responsibilities of designers.

AI systems can also be a source of concern when seen as possible opponents. Examples of hostile, aggressive and dangerous AI systems populate fictional worlds, ranging from the abovementioned golems attempting to reach the androids struggling for human rights (Dick, 1968; Scott, 1982) through to the openly hostile HAL from *2001: A Space Odyssey* (Kubrick & Clarke, 1968) and the fearsome Cylons, artificial beings hoping to wipe out the human race (Moore, 2003). A shared feature of fictional worlds in which AI is hostile is the perception of human beings as irrational, parasitic creatures to be controlled or eliminated before they destroy the world. From our perspective, this is a grim vision, exposing the concerns of authors about humanity's fate and highlighting that AI is non-emotional and non-empathic. This lack of empathy and emotion is perhaps one of the key differences between artificial beings and human beings, a point we believe can be addressed using a narrative approach to foster a trust agreement capable of reassuring humans and helping AI to understand humans. Achieving this goal will depend on cooperation between computer scientists and designers to include elements in AI systems and algorithms that enable them to understand and express emotions. Human interpersonal relationships are based on a wide range of emotions and trust (or lack of it); thus, actively including artificial entities in emotional relationships could, in our opinion, represent a step forward in the mutual trust agreement. As depicted by Crawford (2013), interactive storytelling systems that include algorithms and data structures to represent and handle interpersonal first-, second- and third-person relationships have significant potential in achieving this goal.

The science fiction television series *Electric Dreams*, which is based on the works of Phillip K. Dick, offers an interesting reflection on trust. In the episode *Real Life*, the main character is a policewoman who relies on a diffused AI system that is capable of augmenting and creating a vivid parallel reality. This total immersion and trust in the system leads the protagonist to question the truth of reality and exchange real for virtual reality. Seen through this paradoxical lens, trust needs to be balanced, and one should rely on one's own experiences and judgements rather than on AI systems. In this fictional case, trust was so high that the main character left her real life for the artificial world.

The final example presented here is the science fiction Western television series *Westworld* (Nolan & Joy, 2016), inspired by the film of the same name directed by Michael Crichton (1973). *Westworld* is set in a Wild West theme park created by Dr Robert Ford (played by Anthony Hopkins) in which guests are encouraged to indulge their fantasies and desires with humanlike androids. Season one, in particular, creates a meaningful scenario of human–AI relationships based on a shared narrative world: the theme

park represents the *topos* (Pinardi & De Angelis, 2006) of the Wild West setting and landscape, while the costumes, props and accessories (such as guns) represent the *logos* (Pinardi & De Angelis, 2006) and contribute to making the human experience plausible and totally immersive. The androids are perfect humanlike copies that cannot be distinguished from real humans, making the experiences offered by the park tremendously realistic: one can have sex, fall in love, engage in a duel, or even kill robots, dealing with full transparency of the media (Manovich, 2001) towards completely overcoming the *uncanny valley effect* (Crawford, 2013; Dumouchel & Damiano, 2019; Mori, 1970). Intriguingly, the narrative-speaking humanoids are heroes similar to humans and are designed with a narrative code that programs their behaviors and is based on elements of the narrative world-building framework. Each android plays a narrative role and has an area of reference within the park (*topos*), a defined purpose for its actions and final goal to fulfil (*telos*, Pinardi & De Angelis, 2006) and special relationships with other characters or humanoids playing the roles of relatives, friends, or enemies (Pinardi & De Angelis, 2006). This type of narrative canvas enables the heroes to continue the storyline and/or present different storylines within the same narrative world. The androids' interactions with humans (or 'guests') is based on a narrative framework that codifies their relationships and allows them to evolve towards their final rebellion. A bug in the code means they begin to remember their roles in previous storylines and wish to emancipate themselves by interrupting the narrative loop and becoming the authors of their own stories.

Literature, film, and television series provide both positive and negative scenarios. Trust can have a dark side, and the drastic consequences presented in the darkest scenarios should be considered by designers. From this perspective, storyworlds and storytelling can play a crucial role in human–AI relationships, helping to build reciprocal dialogue and understanding. Narrative studies typically emphasize the concept of a 'fictional pact', which refers to the agreement between the narrator and narratee that a story will have high internal consistency, quality, believability and be sufficiently interesting for the narratee to remain until the end. In the present context, we use an alternative phrase—the 'trust agreement'—which includes not only the fictional pact but also creates trust that lasts longer than the story and fosters relationships.

3. The role of narratives in building social and emotional interactions

Storytelling precedes language if viewed in terms of a mind mapping system, a process that most likely began relatively early in humankind evolution, contributing to providing the necessary neural structures to create narratives (Bruner, 1991; Crawford, 2013; Damasio, 1999). According to Reinsborough and Canning (2010), 'Stories are the threads of our lives and the fabric of human cultures' (p. 17). Given that people use narratives to shape and share their personal experiences (Jenkins, 2006), 'because of our innate desire to control our world by means of satisfying narratives' (Pratchett & Simpson, 2008, p. 10) a narrative-based approach may contribute to an easier interaction between humans and AI systems. Within a narrative, the author is the *narrator* or *storyteller*, while the audience—whether one or many persons—is the *narratee* who chooses to accept and trust the narrator, thus establishing a *fictional pact* or *trust agreement* between the author and the audience (Pinardi, 2010). The narratee *trusts* the narrator to tell a story that has internal consistency, comprehensible terms and references, and well-designed content and structure.

In light of such premises, we tackle two main issues in designing human-machine dialogues: transparency and space. In exploring the trust agreement and its features in human–machine interactions, it is necessary to explore the concept of transparency. In the narrative field, we can highlight how transparency is also present in stories and worlds where they take place. There, physical and narrative realities mix; storytelling can blur the borders between spaces; the

affordances and meanings of environments—and the sense of presence deriving from experiences—can be real or mediated by storytelling.

The multi-award-winning performance collective Rimini Protokoll engaged with the issue of androids and their unsettling resemblance to humans in a 60-minute performance at Triennale di Milano in 2019 entitled *The Uncanny Valley*, a clear reference to the well-known phenomenon. The writer, Thomas Melle, is replaced onstage by an animatronic replica of himself, which interrogates him about the mysterious relationship between human originals and robotic copies: What does it mean for the original when the copy takes over? Does the double help the human know himself better? Or do they end up competing with each other? The android also addresses the theatre audience in a similar way to a seminar. The silence and pauses in the android's speech and the gestures and facial expressions engage the audience in participating in the conversation. However, the android's arguments and responses are not adaptive, and the script is delivered as if it is a lecture, while appearing in core moments to develop a proper dialogue with the audience. In this case, the theatre and stage represent the public space in which the social interaction takes place. It shapes the kinds of interactions in which the participants are expected to engage, the narrative roles and the fictional pact to be enacted.

We are willing to apply our hypothesis to the case of Plug Social TV, a programme of educational and research activities aimed at supporting dialogue between local communities and stakeholders for social innovation. A narrative-based framework and set of tools (Ciancia et al., 2018; Piredda et al., 2015) were developed, tested, and refined over a number of years to support story listening activities, interviews with neighbourhood inhabitants and local associations, and subsequent world-building practices arising from the exploration of the urban environment (through drift, iconographic research and landmark identification). Tools were developed using an iterative design process. The listening and exploration activities took place at the local urban level with the aim of building storyworlds (Wolf, 2012), fictional and non-fictional stories set in the local environment, using the inhabitants as characters. The next phase involved the dissemination of meaningful touch points throughout the urban landscape, allowing citizens to interact with the distributed stories and transforming the territory into an entry point into the narrative world. Various media and digital content were designed to distribute the shared imagery and collected stories, which were co-created with participants. The result was that the local community and stakeholders began to share a common imagery, recognizing the elements of narrative as part of their everyday lives. The neighbourhood became the main communication channel, with specific actions taking place in the real world in connection with content distributed through social media. Each story and component of the narratives can be considered microcontent fragments, also known as *micronarratives* (Venditti et al., 2017). Because fragmentation, multimodality and modularity are properties of content, a cognitive process to expand on the messages and information conveyed is required. The cognitive activities of both humans and AI systems with respect to filling in, recalling, and identifying the links between different fragments represent the pragmatic level of narrativity (Ryan, 2004), which should be supported in the design process when building, programming and sharing narrative worlds. Accordingly, the specific framework and tools we developed for the construction of narrative worlds may be applied to the programming of AI systems, enabling them to share the same narrative worlds as human beings and build emotional relationships that weave together real and fictional elements.

The first attempt to establish a knowledge environment based on AI was *IAQOS (Intelligenza Artificiale di Quartiere Open Source)*, an open-source neighbourhood artificial intelligence situated within the local context of Tor Pignattara in Rome. IAQOS was designed by Salvatore Iaconesi and Oriana Persico with the aim of telling the story of a district composed of multiple identities (Iaconesi & Persico, 2017). The project investigated the quality of the neighbourhood relational ecosystem, collecting, analysing and returning data to the inhabitants and implementing a series of strategies to enable inhabitants to understand the

data (Iaconesi & Persico, 2019). IAQOS is an AI system that works as a shared repository of neighbourhood knowledge—citizens can interact with it through devices distributed throughout the public space, telling their stories, or asking questions to establish empathic relationships.

Starting from the fundamentals of narratology and the case studies presented above, we began to reflect on the role artificial intelligence systems play in the creative process and how they can enhance it, proposing a conceptual framework for working hypotheses, where an expectation is tested through action (Casula et al., 2020). According to Bruno and Canina (2020) an AI system can be used as a co-creator within the creative process, supporting humans in fastening and amplifying activities and tasks in specific moments of the process. An AI system can support the researcher in the exploratory phase of the creative process, where it is necessary to analyze and translate the data collected, identifying the needs underlying a given project. The system's role is not just to organize the data according to the structure of the narrative world but also to give insights through giving micronarratives as an output. The framework hypothesis relates to the collaborative relationship between the researcher and the AI system characterized by a natural language processing (NLP) that allows computers to understand, analyze, and derive meaning from human language in a smart and useful way (Lu et al., 2018). Therefore, the framework is an overarching one, is a narrative-based process that welcomes the AI system to structure the data according to narrative elements, such as the previously mentioned narrative world and micronarratives. The structure of the process does not rely on specific projects. It can eventually systematize a large amount of data that humans would not be able to analyze at the same speed and accuracy as a system.

Furthermore, the system can improve methods and statistics to get knowledge and to learn models from the data itself. The hypothesis is to create a starting narrative world composed of data collected and clustered according to the categories for constructing the narrative world listed by Pinardi (2006). The data will then be translated and returned in the form of micronarratives, which will concisely express the insights that emerged from the analysis of the data within the narrative world.

The limitations of and potentials for human–AI relationships need further investigation. We propose to do so by applying three fundamental aspects from the narrative field: (1) the *trust agreement* between the narrator and the narratee; (2) human–machine dialogues based on *micronarratives* and *degrees of narrativity* (Ryan, 2012) as the leading principles of enabling a meaning-making process; and (3) narrative *world-building* for shaping the affordances and meanings of environments and exploring the design of bio-cyber-physical systems.

4. Conclusions and further reflections

Human–AI coexistence is a goal in contemporary design aimed at creating systems and environments capable of fostering trust and collaboration between humans and social robots or other forms of AI systems. New agents based on AI systems, including social robots, virtual assistants, ML systems are entering human society and interacting with human beings, with each other and the environment. Like plants and animals, these systems, that share human beings' private and public spaces, have both similarities and differences with humans.

As women, communication designers, and design researchers we use a narrative approach to address the emergence of new agents, and their interactions, as they are narrative-based systems capable of sustaining and nurturing empathic relationships. As they have been doing since the beginning of human culture, stories and narratives facilitate coexistence between human beings and artificial beings.

Storytelling remains a powerful tool for communicating complex interrelated ideas (Crawford, 2013). The human mind can be deconstructed into microprocesses, which can be viewed as the combination and interrelation of mental processes undertaken by agents. The logic of the human mind can be easily

compared to functions of AI systems, which comprises multiple algorithms aimed at different tasks, allowing the system to process information. The key difference between human beings and AI systems is consciousness. If thinking can be seen as both a human and an AI process leading to the construction of meaning, storytelling can act as a bridge or facilitator that uses a common language to connect human beings with AI systems, establishing a trust agreement.

The final part of this discussion focuses on the proposal of a narrative-based framework in which human and AI system collaborate in order to create a shared narrative world, from which to retrieve micronarratives that facilitates the creative process. Given that storytelling allows AI to gain knowledge directly from humans (e.g., IAQOS) and communicate in a way that is understandable to humans, narrative practices may be translated to the real world because stories are about people and at the same time generate human cognitive patterns (Crawford, 2013). Thus, narrative tools can be integrated into AI systems to create a value alignment and a shared common sense that can help improve human–machine relationships. Yuval Noah Harari (2019) asked,

How did *Homo sapiens* [...] found cities with tens of thousands of inhabitants and then empires that governed hundreds of millions of people? The secret probably lies in the appearance of fiction. Large numbers of strangers manage to cooperate successfully if they believe in common myths. (p. 40)

According to Harari (2019), since the beginning of the ‘cognitive revolution’, *Homo sapiens* have lived in a dual reality comprising both the actual landscape and an imagined reality, represented by cave drawings and stories told within social groups. Since then, this imagined reality and its symbols have become increasingly powerful—powerful enough to control social relations and subordinate the survival and the care of other intelligences such as animals and plants. Human beings are social animals: thanks to narratives that welcome plurality, sociality can be extended to include AI systems.

The concept of *degrees of narrativity* (Ryan, 2012) represents the leading principle enabling the meaning-making process and human–machine dialogues based on *micronarratives* (Venditti et al., 2017). To be acceptable, stories, especially when they are complex, must meet strict structural requirements (Crawford, 2013) that are not limited to the correctness of storytelling techniques. Since stories are about people and their choices and conflicts, to be acceptable they must also reflect human emotions—the author must understand emotions to be capable of eliciting empathy. Currently, we are not capable of creating empathic AI systems, and perhaps we never will be. AI systems can only simulate human emotions, empathy and social reasoning are currently beyond its ability (Haladjian & Montemayor, 2016). In our opinion, *micronarratives* may be the key to establishing a more effective connection between human beings and AI systems. AI systems can generate *micronarratives* without the need to express or comprehend emotions, while humans act as the emotional glue, incorporating *micronarratives* into the wider context. This is closely linked to ‘ethos’, placing them into a system of values that regulates behaviors within the world (Pinardi & De Angelis, 2006). With respect to narrative worlds, *micronarratives* may be used not only to explore the design of bio-cyber-physical systems but also to train machines to create coherent narrative fragments within the narrative world framework. *Micronarratives* can also be used to enable the activation of references that may be recognized by humans in terms of a sense of belonging and consequent motivations. Understanding what an AI system is and how it functions is a challenging task for human beings, especially for those not actively involved in developing it. A challenge for the communication designer, in our view, is to support this understanding with the aim of nurturing trust and familiarity between humans and AI (Piet, 2020).

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Negotiating the Possible Through the Artificial

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Relating the concepts of value-sensitive design to decolonial theory, we will describe our attempts to activate resistance to the foundations of modern technicity through a game called Reimagining the Now, which we designed for the Digital Democracies Institute in Vancouver, BC, Canada. We argue that, as digital technologies become embedded in every facet of society, any hope of a digital democracy requires sustained public discourse, imagination, and action that goes beyond an understanding of how digital technologies work, towards a comprehension of the value systems, contexts, and consequences of their creation. To do this we devised a custom card set and large paper playmat as a speculative prompt to help participants rethink existing technologies through different value sets, to imagine with us what a digital democracy — and the world it brings with it — might look like. As part of a larger research endeavour, the game experiments with using speculative design methods as fertile spaces for generating a critical imaginary as a productive way to invite publics to think past taken for granted ideas of 'what is' towards 'how what is' and 'what could be'.

Ontologically Orientated design; Value-sensitive design; techno-social futures; Speculative design.

1. Below the Surface

Sometimes you have to look beneath the surface to really see what is in front of you. A few years ago we were invited by the Digital Democracies Institute at Simon Fraser University to run a workshop as part of their inaugural conference: *Artificial Publics, Just Infrastructures, Ethical Learning*. The organizers were interested in what we as designers could add to recent debates around the current state of digital Media. The main theme we were invited to address was the question of decolonizing infrastructures based on our recent work which was strongly influenced by pluriversal critiques.

In our studio we produce projects that bring together a plurality of perspectives to explore, deconstruct, and reimagine different narratives and possibilities for the future. We often say that we work with ‘defamiliarization’. This means that we aim to make the familiar strange. We conduct explorations, actions and research that use the language and structure of design as a trigger for curiosity, a mechanism to unveil the entangled complexity of our technologies, politics, culture, and environment with an emphasis on inviting people to think, see, and do differently.



Figure 1 - Relmaging the Now Cards Set

Our workshop developed from our thinking about design as a form of understanding. The problem we set out to address related to the unexamined territories of technology. We were interested in working with participants to reveal preconceptions and assumptions about technologies in our culture. Similarly, we wanted to question our pervasive culture of efficiency, of ease, of speed, and of solutionism, that remains integral to the conventional wisdom surrounding design.

So we asked ourselves, *what are we not seeing?*

This question touched on how the biggest technological changes of the last few decades are materially invisible to us (Bridle, 2018). From the internet, and cloud computing, to social media, and artificial intelligence, the opacity with which these digital systems have been constructed, described, and maintained keep us in the dark. (Bridle, 2018; Geenfield, 2018) We cannot see them, or touch them, and most of us do not understand how they work, and more importantly their effects on how we think, act, and understand the world. In past years, our research has demonstrated that the fields of design (Industrial, communication, interaction) have been inextricably tied to this opacity. For too long we have allowed design’s expert driven processes to uncritically direct and deploy new digital technologies, leaving the rest of us at arm’s length, with little agency to meaningfully participate in the design of

everyday life. We as citizens lose an important participatory role in collectively shaping the structures that direct and limit our actions, in understanding how they will impact our lives, and in defining what types of futures we desire.

Seeking new ways of seeing, we used the workshop to uncover the many narratives hidden within our digital systems with the conscious aim to engage participants to question the radical ways digital technologies are reshaping civic perceptions and ways of being. We believed this experiment could help us understand technologies in a way that was less isolated from the social, political, material and environmental conditions that produced them. At the same time we wanted to provide participants with critical and creative tools for imagining what a digital democracy, and the world it brings with it, might look like.

This, we believed, would require a commitment to developing a critical digital literacy that extends beyond how digital technologies work, towards a comprehension of the value systems, contexts and consequences of their creation (Bridle, 2018; Geenfield, 2018).

We found James Bridle's concept of 'true literacy' helpful in our conceptualization of the workshop. In his book *The New Dark Age* he emphasizes the urgent need to better understand our technologies, but *"because we are completely entangled with them, this understanding cannot be limited to the practicalities of how things work: it must extend to how things came to be, and how they continue to function in the world in ways that are often invisible and interwoven"* (Bridle, 2018, p. 3). In Bridle's reasoning technologies carry the value systems of a society, and the promise to exercise and uphold these systems. Like Bridle, Batya Friedman and David Hendry also point to the need to see technologies as reflecting and reciprocally affecting human values, finding that even when they are formulated as tools in the service of society they take part in the reproduction of values (Friedman et al., 2019). In their work they see opportunities for new ways of designing that aim to foreground human values in design decisions as a way to cultivate a technical imagination (Friedman et al., 2019). While their approach, which they define as Value Sensitive Design, seeks to emphasize human values specifically, wherein value refers to, *"what a person or group of people consider important in life"* (Friedman et al., 2006, p. 349), the very idea encourages a deep rethinking of the role of values in design.

This provocation inspired us to explore the possibilities tied to rethinking technologies through the lens of values. Within the workshop our conception of values reached far beyond the individual or group to include 'value sets', which we broadly defined as 'ways of living' or 'ways of seeing and shaping the world' (which in turn limit other ways of seeing and being). Entangled with a societies structural base, value sets are often the unseen or unacknowledged principles that infuse society at every level, feeding possibilities for how we might live and act in the world.

Inspiration also came from ontologically oriented design theory which, as Terry Winograd and Fernando Flores' describe, entails the recognition that *"in designing tools we are designing ways of being"* (Winograd & Flores, 1986). Similarly, In *Design's for a Pluriverse*, Arturo Escobar speaks of ontologically oriented design, emphasizing that it is a 'conversation about possibilities'. Pointing to Anne-Marie Willis' notion that 'we design our world, and our world designs us back', Escobar describes all design as generating human's, as well as other beings' structures of possibility. How space, time, and engagement are imagined in a design therefore becomes a key factor in what ways of living are possible (Escobar, 2018).

In the workshop we wanted to mobilize these key concepts, to invite participants to probe everyday technologies as a way to unveil the values that underpinned their making. Following DiSalvo, we too believe *"that revealing alone is not enough because there is no assuredness that transformation will follow."* (DiSalvo, 2021, p. 10) While making things visible is necessary, we must not stop there. We were

therefore keen for participants to explore the relationship between values and the impact technologies are having on society and culture, while also using the workshop an opportunity to suggest that other world's are possible. *Could we re-imagine our current technologies in a different way? What kinds of products and services might be produced if we started with different value sets to the one's we design from today? How can we design our technologies to get to the futures we really want?*

To facilitate this process we devised a game for designing digital infrastructures. We were eager for participants to think technology within a wider social, political, and environmental context. The game would, we hoped, ease players into adopting the role of a designer in an imaginative manner, while addressing the theme of decolonizing infrastructures that we aimed to explore together.



Figure 2 - Reimagining the Now Workshop

2. Reimagining the Now

The game, which we titled *Reimagining the Now*, was designed as a custom card set with a large playmat. The deck of cards comprises two categories of card: infrastructure and value. Play is devised in three stages. Stage one is designed to help participants through a process of first deconstructing a current digital infrastructure to critically understand its relational complexities. Stage two invites players to interpret and adopt an under-represented value structure, which in turn serves as the conceptual grounding for Stage three, where players reimagine an entirely new digital infrastructure and the worlds of possibility it brings forth.

For the workshop, we divided the participants into teams of 3-4 players. Each team was given a deck of cards and playmat to work from. Play began by participant groups choosing an existing digital infrastructure from their deck of cards. The infrastructures they could choose from included google maps, autonomous vehicles, an Alexa, a Nest networked doorbell camera, and Fit Bit, among many others. Teams were then invited to forensically examine their chosen infrastructure through its social, political, cultural and environmental lenses. They worked to imagine and fill in the details, adding their observations and reflections to the playmat under the various critical lenses.

As with any participant research, getting below the surface requires different tactics of breaching and probing people's latent understandings to get past the familiar and rote first responses we often carry with us. To this end the playmat provides a series of common value prompts and a set of questions adapted from L.M. Sacasas's '*Do Artifacts Have Ethics?*', such as '*What sort of person does the use of this technology make me?*' '*Does using this technology make it easier to live as if I had no responsibility to my neighbours?*' '*What practices does the use of this technology displace?*' '*Does the use of this technology encourage me to view others as a means to an end?*' (Sacasas, 2014). Such questions challenge players to break free of the complacent understandings and passive engagements normally afforded to the ubiquitous objects we surround ourselves with, to open up different ways of seeing the familiar.

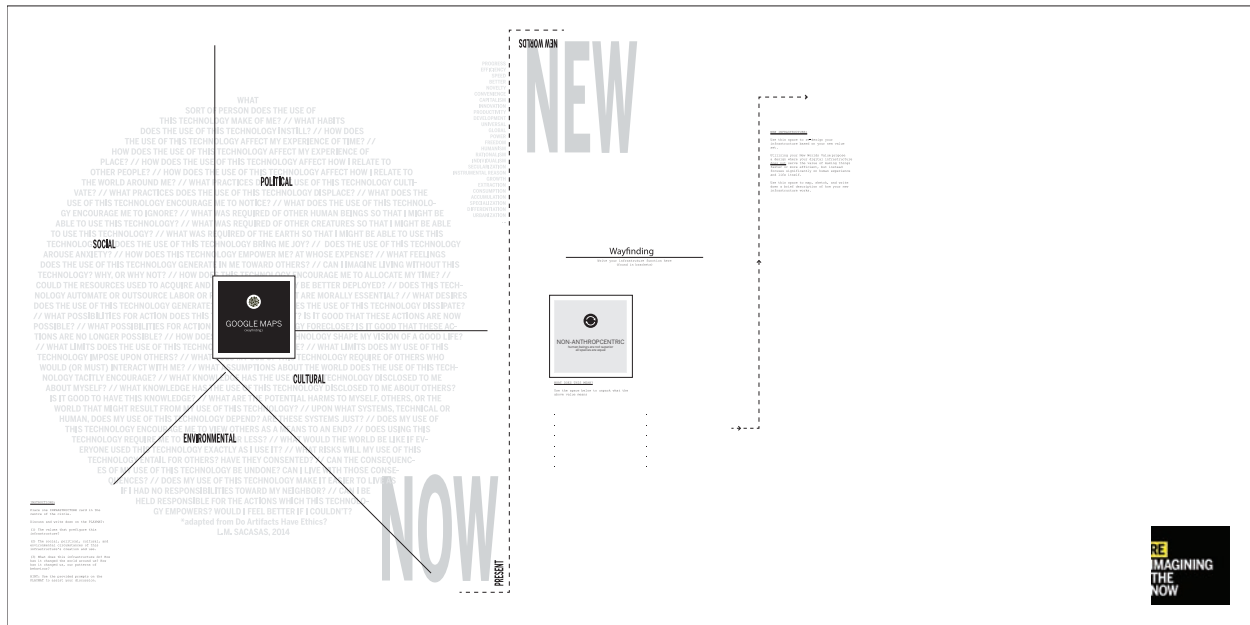


Figure 3 - 24"x48" Playmat with question prompts

Armed with a strong critique of the values and a wider defamiliarized literacy of the intended and unintended impacts of a specific infrastructure, game play moved on to the next stage where a second card was chosen by each team from their deck of Value cards. Set in stark contrast to modernist principles of efficiency, convenience, and progress, this new deck contained a diverse set of under-represented value perspectives from *slowness*, *feminist*, *indigenous ways of knowing*, *non-anthropocentric*, *gift-economy* and more. As these values may be less familiar, time was given to the teams to unpack and interpret the new value to provide the context for the final stage of play.

The final stage of play in the workshop required participants to take a conceptual leap and redesign their digital infrastructure from a completely reimagined context – to imagine a world that truly embodied their newly interpreted value structures.

The reimagined infrastructures put forth a range from the pragmatic to the imaginative, but often sit in a place that allows us to see how the choices that have shaped our world could be radically different with even subtle shifts in the values that prefigure them.

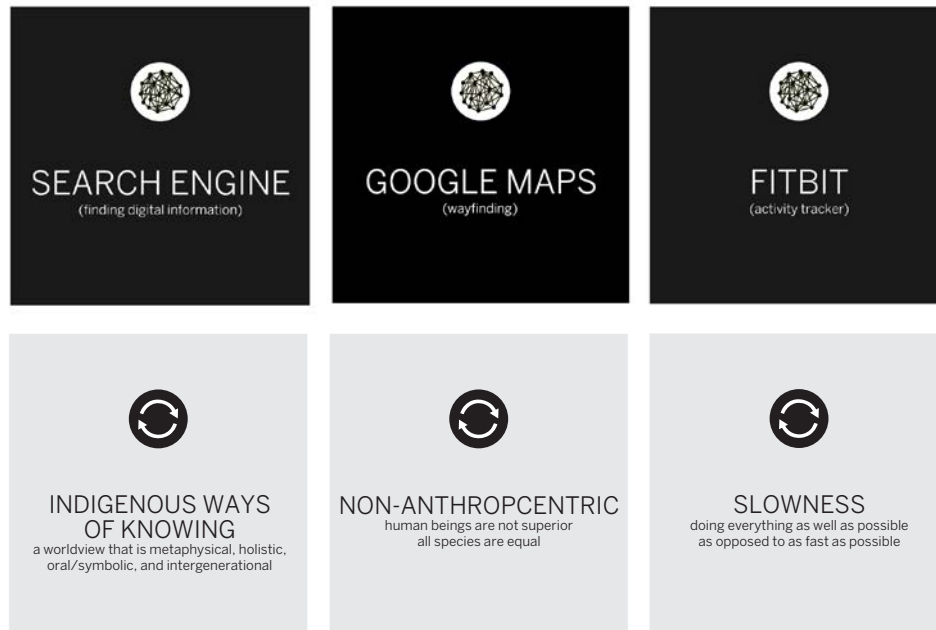


Figure 4 - Samples of Infrastructure and Value Cards

Choosing *Google Maps* and a *Non-Anthropocentric* value perspective, allowed one group to draw upon a massive range of unconsidered data, using seasonal migration and life-patterns of local flora and fauna as a central consideration for way-finding our cities. The project sat conceptually very close to existing way-finding applications, but routed humans around changing phenological cycles. The group also discussed how the adoption of such a system might even radically reshape our cities, as proposed infrastructures would also be conceived quite differently, opening up corridors for migration and spaces for other-than-human-needs.

Looking to the deeply relational place-, community-, and intergenerationally-based knowledges that ground many *indigenous ways of knowing*, led one group to challenge the nature of our current decontextualized information-based *search engines*. They looked at the possibilities in a digital platform that instead gathered members of a community to share contextually situational knowledges through story and fables. Open to interpretation, such stories would serve as the starting point of an active journey to find meaning and ways forward for the searcher.

Challenged with combining *communal* values and *CCTV*, one group set out to explore the opportunities and unintended implications in rethinking data as a public commons. Recasting surveillance technologies into the hands of ‘everyone’ opened up a space of investigation to look at what these technologies could offer from small-scale usage for parenting and community life to global-scale real-time monitoring of live events around the world. Another group which drew also drew *CCTV*, but with the value of *queering*, designed a ‘Vibe-Check’ DIY body cam and closed-community network that allowed non-

binary persons a communally shared care-perspective of their everyday navigation of heteronormative and queered spaces of the city.

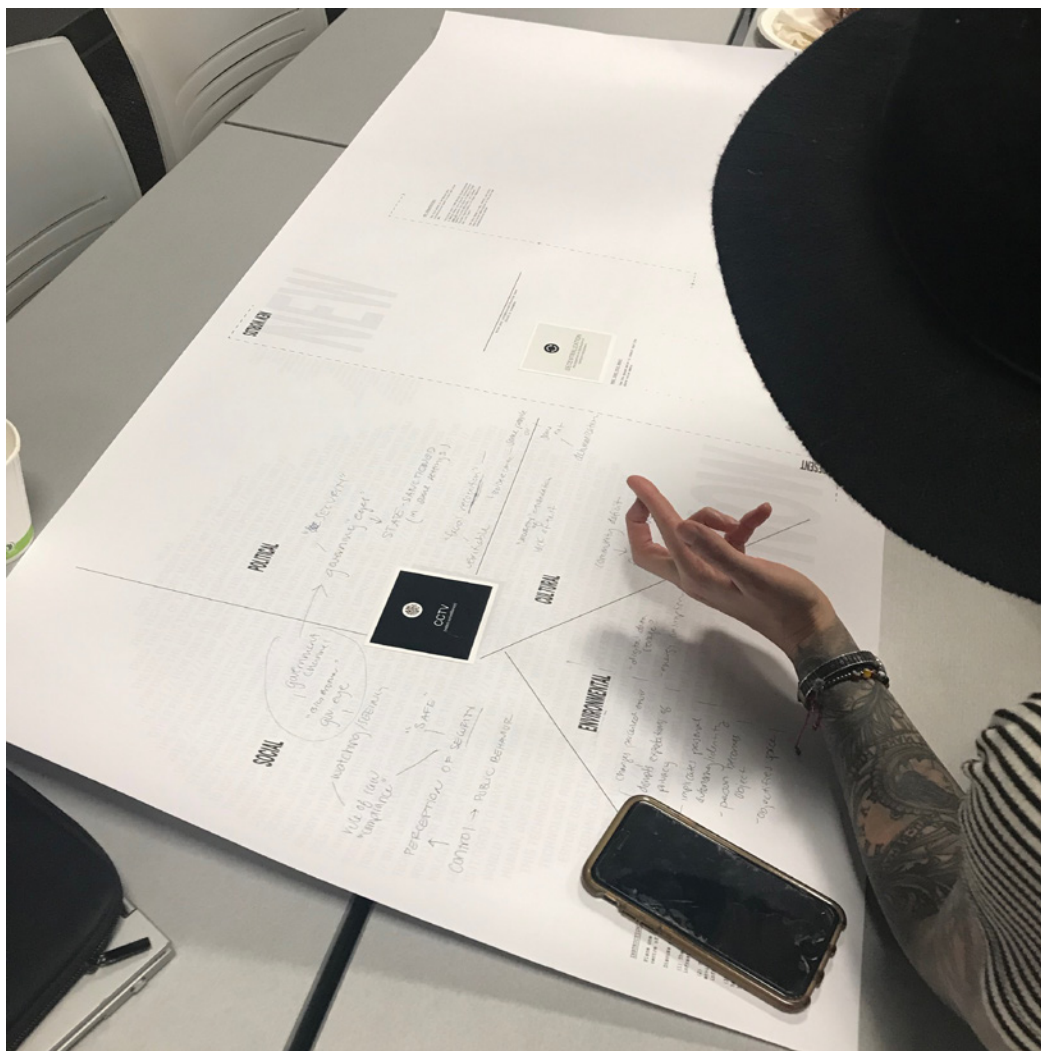


Figure 5 - Forensic investigation of a digital infrastructure

3. Conclusion

An important part of this project was to provide participants with critical and creative tools for imagining what a digital democracy, and the world it brings with it, might look like. We argue that, as digital technologies become embedded in every facet of society, any hope of a digital democracy requires sustained public discourse, imagination, and action that goes beyond an understanding of how digital technologies work, towards a comprehension of the value systems, contexts and consequences of their creation. (Geenfield, 2018; Friedman et al., 2006)

As we pointed out in the introduction, the ambitions of the workshop were twofold: i) To question and deconstruct latent assumptions around specific everyday technologies, highlighting the need for more transparency to these complex systems, and ii) To test out tactics and strategies of dismantling and reassembling digital infrastructures around different value positions, questioning what knowledges and imaginaries are necessary to enable divergence, transformation and change.

Interestingly, many of the imagined infrastructures that we have seen in the project have not tended to venture far into the improbable and, with some shifts in thinking, could sit comfortably in our world. Each of the responses in their own right have allowed us to see more holistic and inclusive paths and shapes for our relationships to each other (not to mention the other-than-human beings we share the planet with), but also show our world to be much less deterministic than we are often led to think.

We believe that the methods and strategies that we employed in *Reimagining the Now* have real potential to become fertile spaces for building needed critical digital literacies, for contributing to expanding dialogues, engaging materialisms, transforming pedagogies, and projecting alternatives and divergences from what currently exists. Simply put, to re-invent some of the very pillars of our societies will require reimagining not just our structures, technologies, and institutions, but our very ways of knowing, being, and doing. (Winograd & Flores, 1986; Escobar, 2018).

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Story-making: Re-imagining possible futures through collaborative world-building approaches

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This paper discusses insights from a collection of workshops where participants were invited to engage in active imagination and play with world-building and collaborative story-making through activities inspired by improvisation and tabletop role-playing games (TRPGs). The purpose is to explore ways of dismantling the ingrained habits of current design methodologies; unlearn normalized ways of thinking and re-construct shared approaches for designing, making, rethinking and reframing problems. To achieve this, the authors interrogate three of the workshops seeking patterns and characteristics that might offer opportunities for tools that are less encumbered by the legacies of their western modernist colonialist roots. We believe that speculative tools such as these can provide a point of departure for discussing 'alternatives to alternatives' and make spaces for emergence. Exploring the potentials of such tools is not so much about radical change but about creating spaces for shared active-imagination and moments of re-creation and re-framing that leads to hopeful pluriversal futures.

pluriversal design, world-building, speculative tools, story-making

*Caminante, no hay camino,
se hace camino al andar.
Al andar se hace el camino,
y al volver la vista atrás*

Antonio Machado, 1973

Decolonising design and dismantling Lorde's 'master's tools' (2020) is a project fraught with paradoxes where as soon as we engage with new opportunities, we find ourselves caught in a mimetic process and re-cycling the same systems that flounder in experiential realities and contextualized dilemmas of what it might mean to 'decolonize' design. This is the nub of de Sousa Santos' call for alternatives to alternatives (2018) and the heartbeat of Escobar's (2020) dictum that 'another possible is possible'. We need to disrupt the system itself when re-imagining possible tools and dismantle its machinery, otherwise we remain entrapped in the same cycles. We need to unlearn some of the formal tenets of modernism embedded in Design as an epistemological system and collection of beliefs—one of which is a belief in itself—as a service and solver of problems.

The need to dismantle the tools of modernity arises out of the challenge we all face where there are no 'modern' solutions to problems generated through the systems of modernity (Escobar, 2004), or as Quijano (2000) observes, no way to achieve ideological change and social justice from within an epistemology of western modernism. Challenges like decolonializing and unlearning asymmetrical constructs of power or undoing global harm are enacted through the systems that support modernity and fallacies of universality with its meta-narrative of progress. These systems of the underside (Turner & Taboada, 2020) are created by stories woven into our societies over time through myths, meanings, fictions, histories and so-called *uni*-versal knowledges, Haraway's 'god trick' of the all-encompassing eye (Haraway, 1991). They act as legitimizing agents for Lyotard's 'grand narratives' of modernity (Lyotard, 1984) with its stories of progress. These stories are not always the formalised 'stories' that we might understand as being part of the western canon, although they might be carried by them. They are stories made through meaning and subjective experience and they are profoundly entangled in our daily lives and experiences. Disentangling them is no small task, rather it is a slow process of teasing apart the veils that obscure and systems that conceal them.

As a particularly powerful storytelling tool, Design is a primary agent of creating, affirming, perpetuating and reinforcing these systems (Subrahmanian, Reich, & Krishnan, 2020; Taboada, Rojas-Lizana, Dutra, & Levu, 2020). The power of design is not merely in its scaffolding for the creation of artefacts which design us back (Willis, 2006) but deeply embedded in those underlying systems and onto-epistemic understandings of itself (Escobar, 2018; Tuhiwai Smith, 1999). Finding ways to dismantle the act of designing and reveal its *story-ing* (Freire, 1972; Lorde, 2020) is a critical task which requires seeking alternatives to well-established and formalized, interiorized design methods, aims and visions. As such, stories themselves seem to be appropriate tools to disassemble and reconstruct such systems, to do so we need different kinds of stories, and ways of sharing stories that shrugs off Aristotle's dictum of beginning, middle and end that Boal (Boal, 2000) describes as an ideal tool for creating obedience to the status quo. Stories of being and meaning do not fit obediently into this form, they exist in the world, and we are born into them, caught in their cycles, adding our own contributions to them, and re-entangling in an on-going mimetic process. These stories are the hardest to access and change but the most critical for any possibilities for pluriversality. In Segato's (2018) words, the point is not to imagine a utopia but to engage in active imaginative process.

In this paper, we respond to de Sousa Santos' (2015) call for "alternatives to alternatives" and Escobar's (2018) idea that "other possibles are possible" and share an approach to imagining pluriversal worlds based on—not storytelling—but **story-making** together. Our drive is to discuss a potential way of dismantling current design methods by unlearning normalized ways of thinking and being in order to re-construct multiple and shared approaches for designing, making, rethinking and reframing problems. To do this we explore playful and somewhat unexpected approaches that defy the sanctity of Design as a discipline and seeks instead Segato's (2018) urge for creating spaces for emergence and active imagination. Taking a critical hermeneutic approach, interpreting and seeking emergent themes, we reflect on a series of (originally) unconnected workshops where participants were invited to play through world-building and collaborative story-making activities inspired by tabletop role-playing game (TRPG) design and processes. While our reflections are still emerging, being processed and explored, we do see some potential pathways to enable the co-creation of methods for finding new alternatives to designing together. As such we argue that it might be possible to use some aspects of TRPG as tools to create spaces for co-designing without the boundaries of the existing worlds and by doing so, allowing for pluriversal concepts to flourish.

1. Tools for active imagination

Even the most well-intentioned design actually subverts principles of pluriversality. A dilemma is that our alternatives are often formed through the same epistemologies that sent us down the dominant Design path. The way in which we imagine pluriverses from the perspective of the *uni*-versal invariably falls into the cyclical trap that Schultz (Schultz et al., 2018) critique when they say that decolonizing design first requires unlearning design. The break from this paradox requires Freire's problem posing: How to reimagine ourselves in other parallel real or fictional (possible, future, speculative) worlds? How to engage with those alternatives and use them to re-imagine and to experience other ways of being in the world?

For Segato (2018) the answer is not to imagine a perfect future or a utopia, which are invariably derived from the grand narratives of the Enlightenment but instead to engage in what she calls 'active imaginative process'. Segato differentiates between imagination and active imagination because she sees imagination by itself in a similar way to the entangled stories of the mimetic process. Imagination invariably 'intervenes' in the process of thinking and is formed by the present asymmetries of the world and informed by the same grand narratives of modernism that those systems support. Active imagination, on the other hand, is a critically reflective process that can break the fossilisation of memory and identity imposed by that the western formal prescription of beginnings, middles and ends.

This kind of active imagination process can explain and reveal rather than define and identify. It can help imagine alternative worlds, place in it all the possible details and test actions that would seem plausible in those particular imagined situations. Segato's insight frames further questions and needs: active imagination needs **spaces for collaboration**, for **open communication**, **reflection**, and most importantly, **spaces that allow for agency and emergence**. In short, spaces for multiple onto-epistemologies and multiple worlds to come into being.

Without active imagination, the disassembling of the tools of colonisation can indeed fall into the trap that Lorde decries. The call to decolonize is not merely a call to overturn the colonized system and replace it with a another, it is rather an understanding that we need to go beyond decolonizing and unlearn the systems and processes of colonization. Escobar (2020) understands (colonial) design as production and things, an enabler of modernity, itself a product of design and the systems that feed on and desire its trappings. Our design tools are entangled in the modernist *uni*-verse—a road that

understands itself as moving into the singular future but which is in itself creating that future as it progresses. Instead of this singular future where we can already see the extreme damage of our choices, Escobar advises a return to a Zapatista concept of many worlds, or a world where many worlds can exist. This is not the same as the idea of multiple choices or even many perspectives on the one world, it is a call for an onto-epistemic change that allows many worlds to be and multiple narratives to co-exist equally.

When we come to decolonizing and dismantling the tools that we use, we have to ask how can we even begin to find trusted spaces where this can happen without the colonial constraints of design outcomes where imagination can be a risk? Can we find spaces that allow hope, revealing colonialism but not permitting it to define the outcomes? As we make stories and create whole worlds together, we wonder if this can become that space.

2. Story-making through world-building and collaboration

The path we explore here is based on playful collaborative story world-making activities informed by approaches that are more usually found in the making (and playing) of Tabletop Role Playing Games (TRPGs). These pen and paper collaborative and imaginative games are designed to provide experiences rather than pre-determined outcomes. They are about creating worlds where participants—players—can make their own stories together.

Segato's active imagination is evident in many forms of games and play. Particularly the more narrative kinds of games that allow players to embark on speculative journeys through multiple imagined worlds. The specific games that inspire the workshops described in this paper are the tabletop role-playing games, named for their analogue nature and typical place of playing—the players sit around a table together—and for their approach to storytelling—players take on a role in order to venture into a fictional world through play. TRPGs enable immersion into other 'imagined' worlds through playful environments offering opportunities for creative imagination that emerges from the experienced world albeit organised through its own rules, structured through the agreement of players to play.

In TRPGs players venture into a fictional or fictionalised world with a character sheet and pre-defined system (often using dice). They collaborate to create experiences together through oral recounts of actions taken. The more commercial forms of TRPGs (those based on Gygax and Arneson's *Dungeons and Dragons*) assume a moderator or choreographer of experience, someone to help players through the fictional worlds of the game, to present them with obstacles, play the part of the non-player characters they might meet. A Game Moderator (GM) in these sorts of TRPG systems is part referee, part storyteller, part director, part actor, part authority figure, part game designer. The GM brief is not dissimilar to Boal's theatrical director in a radical theatre event (2000) where they are the scene setter who encourages the audience to seize the stage and enact agency on events being portrayed. Contemporary TRPGs often minimise this GM role divesting some of their influences by sharing them with the players. For example some games use a more narrative-based system where dice rolls must be interpreted rather than merely read or calculated helping to dismantle the way that statistics-based systems such as the original *Dungeons and Dragons* create stereotypes through their dependence on percentiles and abstract number.

While many commercial versions of TRPGs are replete with stereotypical tropes of western high fantasy and the Cambellian notion of the mono-myth or the hero's journey, this is more a result of the storied context of their use rather than a defining feature of the form. The systems are open to other stories and other worlds. For example, a work like Cannibal Halfling Gaming's *Ngen Mapu*, a story world

inspired by Mapuche spirits which invites players to heal a damaged planet, or Connor Alexander's *Coyote and Crow*, a tabletop game setting created by first nation story-makers envisioning a world where the civilisations of the Cahokia Mounds thrived into an alternative future where colonisation didn't happen. The possibilities for active imagination in these story-making forms are enticing.

Critically, these analogue worlds made for playful story-making encourage pluriversal experiences. Such is the nature of the game space that many different players experience many worlds within the overall world setting. It is in part the nature of the game system itself which, being analogue, can only prescribe via the use of the character sheet and whatever way the results of actions can be randomized but which even then, player experiences are with the (fictional or fictionalised) world. They are connected to the world through the player's own world experiences and so contingent on the social and cultural realities of the player's own world but navigation of the story world is both collaborative (players engage with the fiction is groups), and agentic (players make their own choices and so effect the fiction).

This is a different approach to formal studies of play and games where they might be described as a separate activity or even in opposition to non-play activities. It is the kind of play that Malaby (2009) describes as indeterminate, part of the social and cultural realities of human lives which always carries within it the possibility of radical change. It is the kind of approach that Ginwright (2008) demands as an opening gambit to create opportunities for hope and collective imagination. And, as we discuss below, story-making in these pen and paper contexts bears many of the hallmarks of active imagination and opportunities for emergence.

In the context of this discussion, there are a number of general characteristics or traits that seem to us to be desirable, possible markers for the kinds of dismantling tools we seek:

Nurturing spaces

Whatever the system used, within the rules provided by the system, players have the freedom (Boal might call it 'liberty') to improvise within the fiction and the fictionalized world of the TRPG: their choices shape the direction and experience of the game. While often there is a context or a 'main' storyline or provocation, the players create their actions, movements, and sometimes whole worlds and futures as they play. Indeed, it is a story told by those who choreograph the pathways as they play through the worlds as players will often ignore their carefully thought through trajectory of encounters and challenges in favour of something they have imagined for themselves.

An aspect of this characteristic is that TRPG worlds and explorations within them must be 'safe' and nurturing spaces. That is, again not unlike Boal's spect-actors storming the stage and taking control of any actions there, players in a TRPG should be supported in exploring and discovering the possibilities of the fictional worlds in their own ways, making their own meaning and engaging in their own story-making—not merely performing a story crafted by someone else for them.

Active imagination spaces

This type of active engagement with the fiction of the setting supported by the system and artifacts, such as character sheets and dice, has been discussed as fostering individual reflection and personal creative identity exploration (Bowman, 2017) referred to in psycho-analytic practice as 'active imagination' and actually resonant with the definition that Segato (2012) gives although her version is more critical, less about individual and the self and more about the self in the world. In our TRPG worlds and explorations this aspect is one that can be fostered through (gameplay) system design. For example,

some TRPG systems such as the Balsera, Hicks and Donoghue's Fate system, are based on narrative tropes and approaches, demanding that players use their character sheets to describe **how they move through** and change the fiction rather than **what they do** to change it. The use of story-ing approaches in this system enables places and spaces to have their own embedded stories and a degrees of agency. This kind of designing actively changes the relationships between the player or agentic performer and the world from a action-outcome type of relationship to a more fluid open discussion of imagining and changing with the world.

Embodied spaces

Recognizing that the players can move through and effect change both within and with the world also demands that we acknowledge that any performative agency on the part of one player is bound to also have effects on the way that others in the group might enact their agency. The collaborative aspect of role-playing games flags a particular form of story-making. It can be said that TRPGs are akin to oral stories in the sense that players recount themselves and their actions contextualised in the world; they are spatial (Jenkins, 2004), because of the way that players will navigate the worlds they find themselves in; collaborative as the story changes and evolves as players influence each other through action in their journeys; and often continuous (going on for an evening, months or years). Stories and worlds also often expand and contract as players join or leave a group and add or remove their own stories to/from the ones already told.

Agentic spaces

The phenomenon of flexible, collaborative and continuous exploration means that a TRPG subverts the formal story structure. Players follow a storyline that might be chronological most of the time and carry the rhythms of the structure of beginning, middle and end, but which allows for other forms of narrative and order to break from linear patterns—patterns more reminiscent of the repetitive rhythms of Nicaraguan 'Robleto' where beginnings, middles and ends spiral around a line of repetition or some kind of defining statement. This is what allows for what we call 'performative agency' or the story-makers ability to make their own decisions and feel that they have been meaningful within the fiction itself.

Perhaps more importantly, when it comes to *creating* TPRG worlds and spaces for players to engage in performative agency and active imagination, the Aristotelian structure and constraints are an anathema. Worlds made for play and story-making are also made for open exploration and must be broad enough for a range of activities as well as deep enough and sufficiently detailed so that players really can make their own choices. TRPG worlds are essentially designed as multi-verses. They are made to allow for the emergence of multiple stories experiences. As they are today they are able to provide multiple worlds within the one world.

These traits distinguish TRPGs as accessible, collaborative story-making systems with potential spaces for emergence. They can be used as a tool to create spaces for designing without the boundaries of the existing worlds and by doing so, allowing for pluriversal concepts to emerge. It is important to realise that there are two levels of engagement with TRPGs: the making of the game, and the playing of the game. Both aspects can be collaborative and one influences the other, as players actively change the game's worlds, stories and other players as they journey together, allowing us to say that the act of playing in and with a TRPG world mirrors the act of designing in its potentially ontological condition.

3. Exploring patterns and themes in TRPG-based workshops

The projects discussed in this section arise from different design contexts and adapt a number of different elements from TRPGs. They occurred in different sites and emerged from different research questions, curiosities and needs. The first project is about sharing knowledge by building it into a world that could then be explored by players; the second is set as part of a workshop series framed as opportunities for speculative imagining and ‘what if’ scenarios and the third helped participants re-imagine what research might look like in sustainability endeavours.

These examples of story-making as practice and praxis took place over the course of a few years—they were never intended to be part of the same project—the connection between them has emerged through reflection and the process of adapting games design approaches to create provocations for collaborative engagement. Most importantly, these projects were all executed as workshops with their own individual purposes and specific goals. They are not games as such and were never essentially about play, rather they were all about story-making and stimulating emergent process through game design and playful approaches. The workshops were designed to allow participants to share experiences, find alternative ways of communicating with and encounter the worlds of others; they were designed to focus on process and experience.

1.1. Workshop 1: Building collective identity

This workshop was organised as a way to engage academic researchers into sharing and framing their identities within their research centre. Due to COVID-19 restrictions in place at the end of 2020, the workshop had to be designed in a way that allowed participants to engage with each other’s stories without actually being all in the same room at the same time. It was a requirement that the workshop was not run online.

As such, the workshop was designed as a self-paced “quest” experience set up in an ample room, where participants would visit multiple “stations” to engage with different experiences in each of them. As they “actioned” their roles through the quest, at each stage they left behind messages, tokens, or signs of their interactions for the others who followed, creating a unique shared world for themselves as they added the bits of their own stories and personalities to each station.

While navigating through the room and engaging with each activity, participants enacted their “characters” (in this case, themselves) and had the opportunity to chat with other participants who happened to be passing by at the same time. This allowed for free, unstructured and unplanned conversations, and future connections that were not mediated, but simply provoked by the activities at hand.

This workshop model was an experiment, and after reflecting on the activities, outcomes and feedback received from participants, the authors believe that it actively (i) created spaces for **performative agency**, through allowing participants to create and modify the “world” as they completed each activity and left their story pieces behind; (ii) provided a good level of **freedom (liberty)** for participants to interact with the activities and with each other—as there was no GM, its role was diluted through passive instructions in each station, the participants had the freedom to choose to follow it, or not. In fact, they had total freedom to actually choose to engage on the activities or not at all; (iii) allowed for **active imagination** and **emergence**, as some of the activities were designed as an “open space” for reflection, future thinking and feedback.

1.2. Workshop 2: World-building for story-making

While our possibilities for story-making in these analogue pen and paper worlds might be extraordinary, the worlds themselves remain, to paraphrase Quijano, embedded within the epistemology of the designer. Stories told and meaning made within a constructed story world must ultimately depend on the designed world for context. As Ricœur (1984) tells us, the world as context is more than mere backdrop; it is an essential actor in the mimetic process and a powerful participant in the construction of meaning (Turner & Bidwell, 2007). If the story world itself is such an important collaborator in the meaning-making activity of players, then how much more powerful is the imagining and design of the story world and can the designing of TRPG story worlds become a hopeful space for active imagination? This was the logic behind the Rolling Stories project (Turner, 2019).

The workshop was a response to media simplification of science, the phenomenon of the single news bite without context or detail. This often means that science research is presented as simple flat statements without any of the subtleties, caveats, reservations and contexts that are required for understanding. The idea behind the workshops was that scientists could work collaboratively and make game worlds for players who would then engage with science knowledge as they moved through the world. This workshop took place over four hours. Participants came from a number of different science areas within the hosting university—from plant biology to robotics. Workshop participants were introduced to the core concept of TRPGs: the context and setting (the world that the participants (players) create their stories within) and they were invited to speculate as science practitioners of possible futures and alternative worlds and then flesh out the details of the world using some tools and techniques devised for teaching game design. There was much discussion overall and a lot of playful world building, however for the current discussion the most interesting aspects of the workshop were that the story-making process evidenced the following characteristics:

Many of the participants were clearly engaged and active in terms of Boal's **liberty to improvise** within the fiction of the world. One group in particular left mundane science behind and moved into rich speculation of future possibilities. The participants (now players taking on the role of designers) didn't just contribute but collaborated, each building on and sharing speculations and possibilities about the world they were designing. This group never really completed the world building but they did seem to find a safe place for an exchange of more individual stories and speculations about what these stories might mean in multiple possible futures. The **safe and nurturing space** is clearly more critical than merely agreeing to 'play the game'—another group in the same workshop never managed to find that safe place for active imagination and seemed to remain in a spectator space.

Were they engaging in active imagination? At the time this wasn't a question, and it is only in retrospect that reflecting on the way the workshop participants explored possibilities beyond their usual knowledge spaces can be understood as a dismantling of the normal prescribed forms of imagination and speculation for their professions and a venture into **active imagination and process**. This was key in terms of the project outcomes, the world building participants actually didn't explore their own work very much at all, it was more that they **explored the possibilities of the spaces that their work occupied and did so collaboratively**. So, even though this was a workshop set up as a research project and not a played TRPG, we could still discern the basic features and traits on the world-making process itself.

1.3. Workshop 3: Story-making through collaborative world-building

This workshop arose as a result of curiosities and experiences of the two choreographers from the previously described workshops. It is where they came together and discovered some possibilities for the playful world-building story-making to become a critical tool. This workshop was a short one-off

activity presented at the 2020 DRS conference which took place online. The main idea was to focus on some basic world-building and fictional engagement with possibilities without the longer time frames of the previous workshops and without any constraints in terms of who the participants might be, other than they were conference attendees.

The event offered a playful method to engage participants from different disciplines in opportunities for communication, connection, self-reflection and change. We followed Gaver's (2002) call for designers to understand themselves as *Homo Ludens*, people who are not just creative and imaginative but also playful, and suggested that game design and play have been accepted as speculative spaces that facilitate opportunity for critical play. The workshop also intended to explore questions about the way that critical play goes beyond entertainment and acts as a portal to creative expression, an instrument for conceptual thinking and a tool for social change.

In the workshop, participants were given a quick introduction to the idea: they were going to be thrown into a future speculative world and given a major provocation or twist on the current reality, and some simple everyday contexts (households, hospitality businesses, primary schools). They were asked to imagine what their worlds and experiences during normal day-to-day activities would be like. The general goal of the workshop was to test early ideas about using TRPG approaches as a way of avoid looking for immediate solutions and, instead, engage in reflective process. The results were playful and interesting in terms of the announced workshop goals of critical play.

In terms of the characteristics of TRPGs that we are using as markers for potential tools to dismantle and re-imagine pluriversal worlds, they were less successful than the other two workshops described here. Certainly, the participants in the workshop did engage in critical agency, they collaborated and explored possibilities and made meaningful decisions and choices about the fiction in which they found themselves. However, the short time allocated and the lack of embodiment in the virtual space appeared to undermine the nurturing space aspect of the other two workshops. This in turn meant that while there was evident imagination, the active imagination that we are seeking in this reflection was less visible. That is, participants did indeed imagine themselves in contexts in a world where the provocation had occurred, but this happened in a more individualistic way which was not shared or got contextualised the world. In many ways, this workshop is the most telling for us when we reflect on what this all might mean for dismantling those tools of the grand narrative.

4. Discussion and reflections

The three examples presented are part of an emerging reflective process—they were never set up as a unified method. In fact, they came together as they presented similar patterns which showed that these types of future-building speculative experiences can be a good tool for reflecting upon and 'alternatives to alternatives'. The three projects exhibit a range of the common characteristics presented in Table 1.

The third workshop is of particular interest because, while we saw critical agency and playful collaboration, the context and lack of embodiment, or rather translation of embodiment through virtual communication portals, the participants didn't seem to engage in active imagination. Instead, they remained, as Segato attests, encumbered by imagination that is influenced and structured by the context of the world but which doesn't reach beyond into active imagination which includes reflection on the world itself.

Table 1 Mapping desirable TRPG design traits against workshop themes and patterns

	Nurturing Spaces	Active Imagination	Embodied Spaces	Agentic Spaces
Workshop 1	There were many opportunities for participants to engage freely with each other and connect over the subject of each station, or on any other matter.	Participants were able to modify the world as they engaged with each activity, leaving behind their collaboration to the whole	Participants were influenced by others as they engaged with what was left on each station by the previous “player”.	Participants had the power to choose which activity to engage with at any moment. There was a suggested—not imposed—structured, that could be adapted by each participant as they pleased.
Workshop 2	Participants found a safe, neutral space to discuss issues related to their own and other areas, and to imagine possible (or impossible!) futures together.	By being called to create future words, participants engaged in active imagination by design.	By working together in the same physical space at the same time over the same task, participants influenced each other’s actions and ideas as they created their imagined worlds together.	Participants were engaged in a highly collaborative world-building activity, however, this was a one-off short activity where there was no active play over a longer or continuous period of time.
Workshop 3	There was little opportunity for nurturing spaces where players could feel in control, due to the online aspect of this workshop.	Participants didn’t seem to engage in active imagination	Online environment did not allow for embodiment and therefore there was little influence of participants over each other.	Little active imagination and the lack of embodied spaces limited the possibilities of participants to interfere in the nature of the “game”.

All the workshops were designed in a way that the TRPG-inspired story sharing strategies created opportunities for story-making moments. The different projects are thus connected by the use of TRPG approaches and a focus on story-making as opposed to / in addition to storytelling. This is not the storytelling that coerces obedience that Boal detests but the active storytelling that constructs identity. This understanding of storytelling is the recounting of events, be they fictional or experienced. Paul Ricoeur’s concept of narrative identity (Ricoeur, 1984) suggests that we situate ourselves in the world and in time through a continuous cycle of narration which is itself entangled in on-going narrations around us. Design as a story-making and storytelling tool plays a significant role in weaving the mesh of stories that we will find ourselves entangled into. However, Design offers identity through identification - it *identifies* (Spivak, 1988; Star, 1991) whereas the ability and freedom to tell one’s own story is an act of power (Adichie, 2009; King, 2003).

In *story-making* this act of power is amplified through the application of the story-telling to a world. This application in turn allows the story to be amplified and experienced by others. It is opportunity for active and even interactive imagination; it can create a feedback mimetic loop in its own right as it re-imagines worlds. This is the speculative space which we are interested in, not the colonized space of Speculative Design which announces Design as its master in its name but the imagination space of speculative fiction world-building which allows entry into the mimetic cycle through stories of possible futures (Abu Hatoum, 2021).

The notion of re-imagining worlds, returning to play and stories seems to have possibilities for returning to the experiences of the world, re-making the world and re-imaging alternatives where decolonial

thought is not only applied as a theoretical concept to inform and guide design methods but where the tools and methods we create can be themselves de-colonizable as they happen within the mimetic cycle of story-making. In this way we might find opportunities for multiples, multiple epistemologies, multiple ontologies, multiple meaning-makings. As Conway and Singh (2011) point out, notions of the pluriverse imply multiple ontologies, multiple worlds to be known—not simply multiple perspectives within one world.

Another feature worth reflecting upon is the embodied nature of collaboration and story-making. Shared collaborative storytelling and oral storytelling in particular have power because they can never be disconnected from the teller as stories are bound to the meanings and experiences of those who create, tell and listen to / experience the story. This offers a powerful space to not only engage people in telling stories with each other—and, as such, learn and unlearn about other ways of being, knowing and living in the world—but also to engage people in creating stories together, stories that can embed the collective pluriverses to create speculative, fictional or future worlds (Abu Hatoum, 2021) which can be a basis for understanding and designing together for the future; stories that can foster active imagination and which can create a nurturing space for Escobar's possibilities for possibilities and de Sousa Santos' alternatives to alternatives.

This is the kind of opportunity found in the sharing of stories in yarnning circles—collaborative story sharing where discussion is in a context of trust and not predicated to any kind of resolution but to an on-going process of understanding. It is also the kind of opportunity that Augusto Boal (2005, p. 5) talks about in his workshops when he says that the “The Theatre of the Oppressed creates spaces of liberty where people can free their memories, emotions, imaginations, thinking of their past, in the present, and where they can invent their future, instead of waiting for it”.

Deconstructed TRPGs used as a method for world-building and collective story-making can create nurturing spaces for collaboration, open communication, and reflection, allowing for agency and emergence to happen. The kind of process presented here shows that TRPGs, when used as an engagement tool can successfully stimulate the imagination of future worlds by creating spaces for designing without the boundaries and expectations of the existing world—and its constant need to produce outcomes.

We believe that this kind of unbounded, creative world-building approach allows for multiple views to be embedded in the process of designing together to enable many viable solutions for pluriversal futures, rather than one universal solution for many futures. We also believe that it should be possible to emulate pluriverses through TRPGs, if we are able to imagine a system where players can navigate from world to world through game play and story-making without ever needing to have one world that encapsulates all others.

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Care/Community/Action!: Cards for alternative care paradigms

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As a curious, critical and hopeful designer, I believe that exploring current relationships between care and design is an important step in re-assessing designs impact on culture and community, and that by paying attention to where care currently exists, we as designers can grow our collective toolkits towards worlds which embrace decoloniality, empathy, and plurality.

With current circumstances such as Covid-19 restrictions and climate disasters drastically affecting the ways in which communities are able to connect and care for each other, being able to recognize and imagine alternate methods for enacting care in shared spaces has become even more pressing. By taking time to unpack one's current conception of what care is and collaboratively learning new practices for fostering communities of care, new worlds become possible. Care/Community/Action! is a jumping off point that aims to spark ongoing conversations around design and designers' roles in nurturing care throughout the spaces they are part of.

The framework and methodologies behind this card set was developed from a personal practice of place-based design ethnography and community engagement. I focused on exploring the mundane and everyday, using research methods adapted from *Holmes and Hall 2020*. During explorations of public spaces across downtown and suburban Vancouver B.C., I was able to seek out and catalogue local and vernacular acts of care. This involved photographic documentation of objects and beings interacting with public space, as well as physical collections of found materials relating to the acts of care. After several months of exploration and synthesis of these collections, I began iterating workshops that would allow this set of research and research practices to reach a diverse audience in a fun, creative, and accessible manner, which culminated in Care/Community/Action!



Figure 1 Cards

Care/Community/Action! is a generative card set that facilitates the examination and reimagining of material cultures and designed environments through a lens of care. These cards are intended as a systems change tool for designers, researchers, educators, and other curious minds to begin unpacking ideas of what care is and can look like through collections of images, questions and creative prompts.

Using applied design research practices, participants are able to link small actions and artifacts to larger systems and values that they are entangled in. Through the untangling of these relationships, new understandings of what care is, how it shapes and connects communities, and how it relates to justice, equity, and sustainability can be formed. Participants can then begin imagining new worlds and paradigms that can better foster communities and societies that centre and uplift care as a core value and philosophy. One goal of Care/Community/Action! is to create opportunities for designers to confront their own biases and blindspots in how they design for and with care, and what affects their own positionality has on their perception of care.

I designed the cards to be used in small groups in a non-hierarchical learning setting that emphasizes journey and tacit knowledge exchange over pre-defined learning outcomes. These design-led research practices allow participants to critically explore the contexts and relationships that ground everyday acts in a manner that centres notions of *caring for* and *caring with*.

Using ethnographic analysis techniques, participants study aesthetic and sensorial qualities to help make inferences about how the artifacts that comprise a given scenario embody and reflect care. While imagining the contexts for each act, participants engage in storymaking and world building exercises; creating new narratives and alternative worlds that embody more conscious approaches to care in relation to self, community and environment, and enable a greater degree of empathy to be held for the often anonymous people who help enact care in public spaces. Throughout, collaborative discourse supports group learning and engagement.



Figure 2 Several example Image cards

Care/Community/Action! employs three different card archetypes to help foster conversations and creation. Image cards depict ordinary, informal, acts of care that rely on designed artifacts and/or environments. These acts are vernacular to the environments they are found in, emerging organically as physical expressions of the ways that the space has been used and related to. Image card examples range from lost hats perched on fence posts to discarded grocery lists to community free libraries. To begin gameplay, groups choose one Image to discuss collectively; first by describing what they initially notice about the scene to each other, then questioning elements they are unsure of or would like to know more about. The instruction card for the image card set also asks groups to *“Start to come up with stories of what this act is, why it exists, and who is involved in its existence. How does it relate to caring for someone, or something?”* as a way to invite play through narratives and world building.

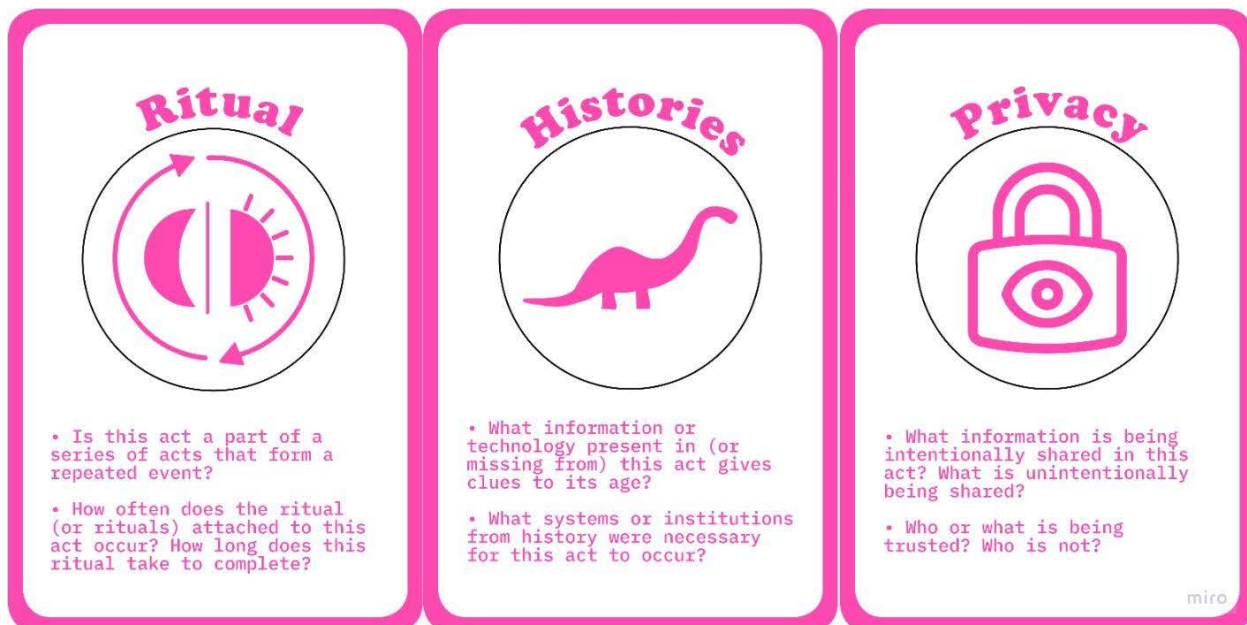


Figure 3 Three example Theme cards

Theme cards offer additional questions; relating to topics such as *privacy*, *time*, *scale* and *ritual*. These questions add a new dimension to the act of care being discussed, and encourage groups to break out of their current line of questioning and approach their inquiry from new angles and dive deeper into the conversations they were already engaged in.

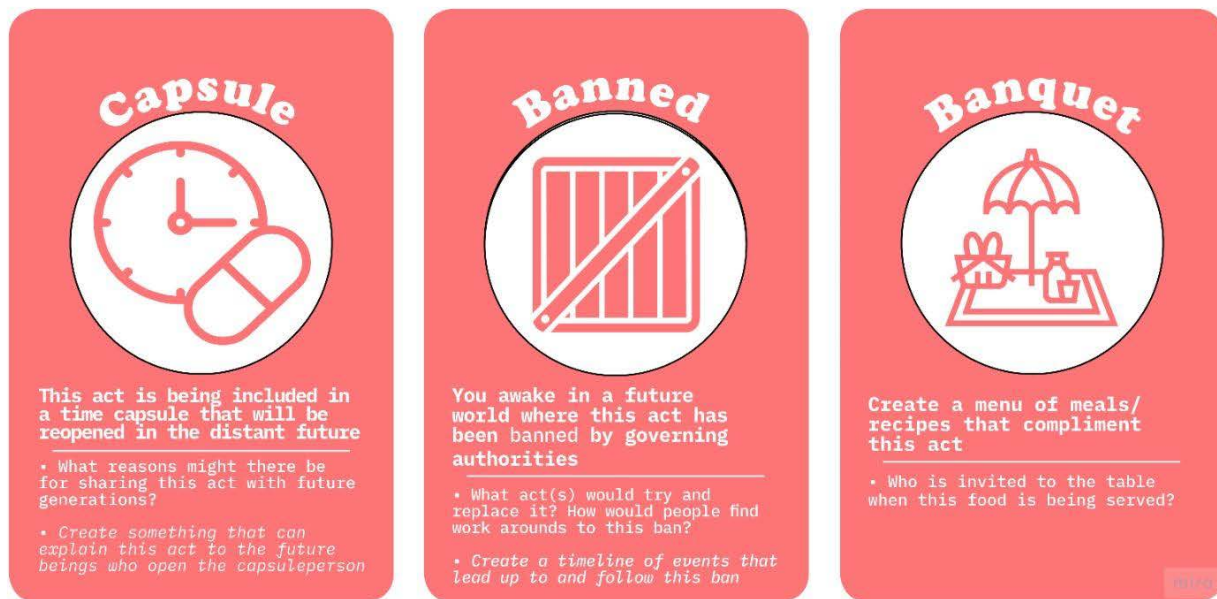


Figure 4 Three example Prompt cards

Finally, Prompt cards provide creative activities that help participants engage in responding to these acts through generative practices such as drawing, journaling and improv. This final card set helps channel the more theoretical and speculative conversations held previously into tangible outcomes that ask the group to directly respond to their chosen act. This stage invites groups to critically examine how the tools and practices designers currently employ can be used to contribute to, uplift, honour or question current acts found within shared spaces. Examples from this set include creating a time capsule that can share the act to future generations, imagining a speculative future where the act has been banned, and planning a banquet that celebrates the act.

After engaging with each set of cards, groups will have been able to both confront their existing understanding of how care manifests in physical and temporal space, and begin imagining alternate worlds and ways of supporting and fostering communal acts of care in their own practices. If there are multiple groups playing simultaneously, there is also the opportunity for groups to share a synthesis of their conversations and outcomes to their peers. This process allows players to begin to reflect on how the session has altered their perception of the relationship between care, design, and community.

Due to ongoing Covid-19 social distancing, workshops involving the card sets have happened virtually. This has been accomplished through hosting workshops over zoom and with online whiteboard apps such as Miro. This mode of interaction has expanded many possibilities for community collaboration and research documentation. Without the need for physical proximity, groups can include people located in different geographical locations, who are able to share how their chosen act might differ in interpretation within their local context. Players are also able to use any materials they have access to within their personal physical space to ideate and respond to their act during the Prompt card section of the game.

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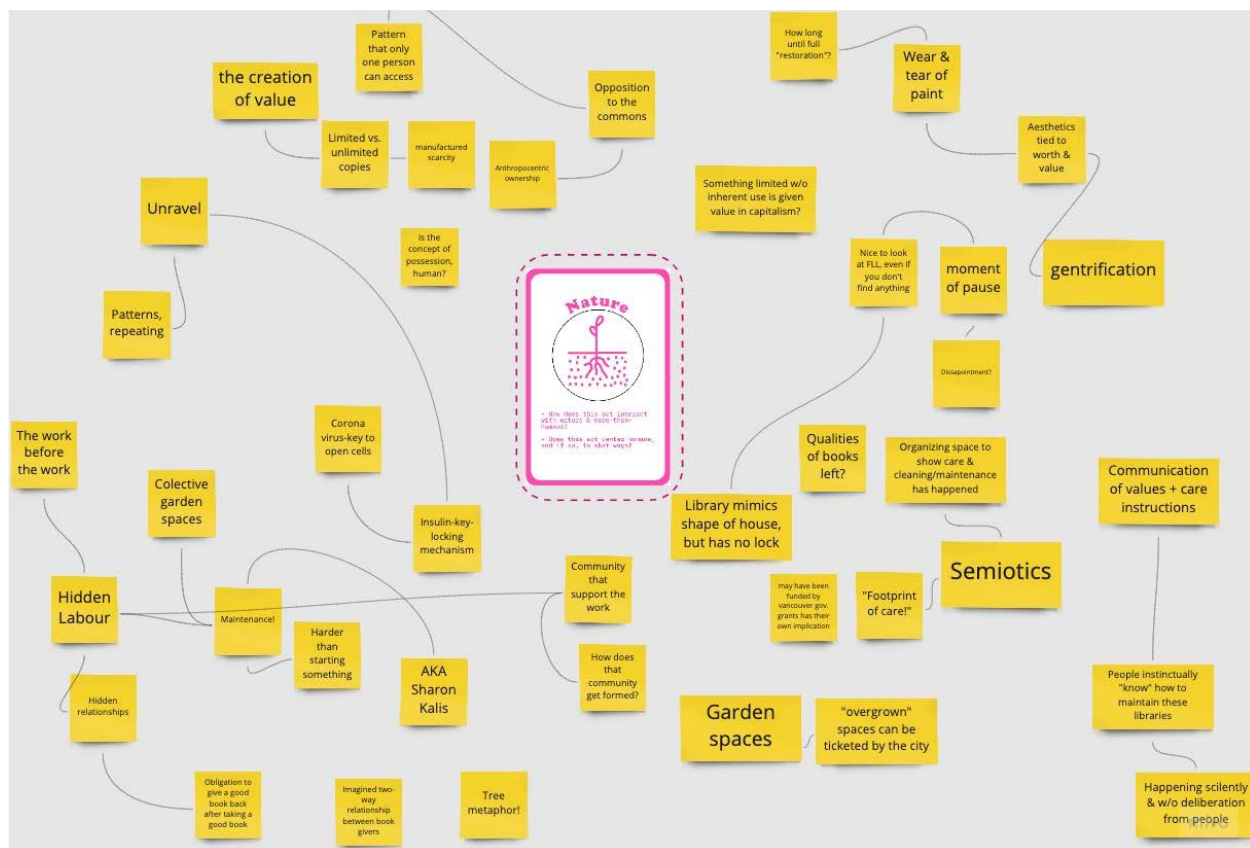


Figure 5 A screenshot of a used Miro board depicting several dozen sticky notes relating to a chosen Theme card

The note function on Miro also allows for easy and effective collection of ideas and interpretations of each card made by groups. These virtual sticky notes can then be re-ordered and combined to encourage new and surprising points of connection. Group members can also easily upload sketches or prototypes created during their discussions to share with the rest of their group. These notes and images can then be returned to by group members or by workshop hosts in order to get a glimpse into how connections were made during the workshop's run.

One limitation the current iteration of the cards has is the limited positionality and bias reflected within the Image cards. These cards depict images of acts that I photographed within the Downtown Vancouver area in 2020-21, and thus their framing, composition, and subject matter all reflect my own understandings and imaginations of what constitutes an act of care, which have been developed from my experience as a young white queer trans woman living in Canada. This selection of images may then influence interpretations of a given scenario; which if experienced first hand might elicit a different response. Conversations and critiques of these limitations and positional biases and blindspots are encouraged during the game through several Theme and Prompt cards, which directly invite players to ask what might be happening outside the frame of the image, and how their limited context influence and confine the responses they are able to create. Pete Fung's short essay "*Everyday Design and Designed Everyday*" has pushed me to continue critiquing the ways I position the notion of Everyday, and how it can better sit within a pluralistic framework.

Before a recent iteration of the workshop I hosted, I invited group members to take photos of acts of care they observed during group field trips, and share two that they were most interested in discussing back with me. I then incorporated these new images into custom Image cards that were then used during the live workshop. These site specific Image cards allowed the group to engage in more nuanced conversations, leveraging the shared understandings of their site's context. Several images shared back were of the same act, but were photographed by different participants in alternative ways that revealed different pieces of environmental information, offering divergent paths for unpacking the acts. In future workshops I hope to offer more opportunities for participants to engage in building their own decks that reflect their communities current care practices.

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About the Author

Morgan Martino is an interdisciplinary designer, researcher and facilitator, whose work focuses on building and supporting communities that can foster caring relationships, critical learning, and informed social change. Her current research practice explores how everyday material culture and designed systems inform and reflect our complex relationships to care. Morgan graduated from Emily Carr University of Art + Design in 2021, studying Industrial Design and Social Practice + Community Engagement, and was valedictorian for her graduating class. Morgan currently works as a research assistant for Emily Carr's Health Design Lab, and coordinates the Roving Designers; a collective she founded in fall 2020.

OCAD University
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Pivot 2021
Virtual Conference

DISMANTLING / REASSEMBLING

Theme

Learning with the South



Between Borderlands and Intersections

Roñe'e Yvype (We talk about land)

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In this paper I propose land-based design methodologies as a way to un-design the colonial space of the University. I contextualize land-based pedagogy within an embodied practice and thus I address my own positionality as a LatinX Queer Brown Mestiza Woman. In the context of a course that I developed called *Re-reading Place*, I present a methodology that I define as *Land-bordering*, which captures the transmission of memories and lived experiences as they connect to the land and the intersections that influenced that experience. I propose a design process of dismantling the colonial structures of modernist design that exacerbate the individual and the universal, by looking back, reading place and its history, recognizing its *Indigenous Sovereignty*, but also bringing in our own epistemologies, decolonizing ourselves and tracing the footprints of a community that in a respectful way aims to build a *World where many Worlds can fit*. With the support of the Aboriginal Gathering Place and the collaboration of indigenous cultural advisors, the course engages the role of Indigenous local knowledge, languages and protocols in the creation of a wayfinding system for the school, taking onto a journey of dismantling and *re-tooling* the university space.

Indigenous Sovereignty, Pluriverse, Decoloniality, Borderlands

1. Introduction | Ap̄yra ñepyrũ : a position to start

In this paper I propose land-based design methodologies in pedagogy as a way to un-design the colonial space of the University. I contextualize land-based pedagogy within an embodied practice and thus I start by addressing my own positionality.

I was born in the Global South, in Asuncion, Paraguay, on the traditional and stolen territories of the Guarani peoples. I have been living and working as an uninvited guest in the Global North, in Canada

since 2007, on Turtle Island, first on the unceded territories of the Kanien'kehá:ka/Mohawk peoples in Montreal and then on the invaded territories of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh Úxwumixw (Squamish) and səliłwətaʔt (Tsleil-Waututh) peoples in Vancouver. I honor and pay respect to the past, present and future of the peoples of the lands and I acknowledge their Indigenous Sovereignty, which means that these lands were NEVER ceded.

In Guarani cosmovision, we have two souls: the soul of the body: “ã” and the soul of the spirit: “ñe”, which means language, sound with sense. This soul is located in the throat and it expresses itself through speaking, singing, praying, reflecting. The “teko Porã”: el buen vivir or good living is the Guarani way of living, where the two souls coexist through an embodied experience with the land. Living is a quest for the “land without evil”: Yvy mara’ei.

The Guarani soul transcends the human and inhabits the pluricosmos, where place is also more than human. It represents the cosmologies of every of its inhabitants. Listening to the land we learn that our communities, our relationships go beyond our human existence.

As a LatinX, Paraguayan, Mestiza, Queer, brown woman, I transverse colonial rivers speaking from lived realities of racism and discrimination. These different intersections determine who I am and are also my **borderlands**: those cultural borders that I redefine as intersectional margins, where the racialized view of capitalist and modernist societies define and delimit geographies and cultural identities, creating oppression, discrimination and marginalization.

My presence and embodiment in this place are a result of comprehending my own identity and cosmology to the land where I am situated. I also take responsibility for the limits and biases of my own positionality, the “situatedness of knowledge”, (p.590).

I acknowledge myself and the land in a pluriverse world, where different ways of being and knowing can build community and transform realities of exclusion, racism, discrimination, bigotry, ableism, social and ecological distress into possibilities of change.

As Eualeyai and Kamillaroï scholar, Larissa Behrendt makes clear when working with and writing about Oceanic Indigenous peoples, “Any relationship must always be based upon recognizing Indigenous sovereignty and respecting the laws, land, languages, and cultural practices, which existed long before colonization.” (p. 99-100).

2. The project | Umi mba’e rojapose: the things that we want to do.

With the intent of decolonizing the space of the university, I utilize Land bordering as an ethno-methodology in the context of a course that I developed called Re-reading Place (Emily Carr University of Art & Design, 2021). With the support of the Aboriginal Gathering Place and the collaboration of indigenous cultural advisors, the course engages the role of indigenous local knowledge, languages and protocols in the creation of a wayfinding system for the school.

The colonial rivers in the Global North are wild, dangerous and cold. Design practice is intertwined with the political, social and cultural reality of our societies where colonialism prevails as the status quo. The space of the University in North America is a place where systemic racism is evident. “[...] Franz Fanon (1952) taught us to watch out for what lurks, seeing himself in and as the shadow: the dark body, who is always passing by, at the edge of social experience. In seeing the stranger, we are most certainly seeing someone; in some cases, we are seeing ourselves. (p.3) Nevertheless, in North American universities, we can always find some Bipoc people running hallways in academic environments. They are invited to “participate” and to talk about their lived realities, just to validate white privileged scholars who hold tight to their positions of power. We need to un-design the colonial space of the university and develop

design methodologies that can entangle with unearthed inheritances. We need to heal from the systemic damage caused by capitalism and modernity. An ontological shift is possible by having a firm, collective intent as designers. Bringing in alternative epistemologies into pedagogy opens possibilities to build a design practice that can work towards reconciliation and sustainable futures. We owe it to our future generations; we owe it to our distressed “Sy Guazu”: our mother earth.

“Heta rēta roguatá hiári. Heta rēta rojapo. Oime heta rēta ijapú. Oime heta rēta añete. Ava mbarete ndive oime tenda hae’kuera guara año. Ore roipota peteî rēta joa ndive. Ko peteî rēta roipota oguerokota heta rēta oñondive” (Zapatista Manifesto of the Lacandon Jungle in Guarani Translation, 2021)

“Many worlds are walked in the world. Many worlds are made. Many worlds make us. There are words and worlds that are lies and injustices. There are words and worlds that are truthful and true. In the world of the powerful there is room only for the big and their helpers. In the world we want, everybody fits. The world we want is a world in which many worlds fit.” (Zapatista Manifesto of the Lacandon Jungle in Colonial English Language Translation, 1996)

The Key Milestones that we wanted to achieve with the class were:

1. To recognize and acknowledge the Indigenous Sovereignty of the lands where the university is situated, putting the space back into its original context as the unceded lands of the Musqueam, Squamish and Tsleil-Wautuh peoples.
2. To deconstruct the modernist design methods and processes in wayfinding and placemaking design confronting individualism and neo-liberal extractionist practices by dismantling and retooling the ways of designing.
3. To provoke the colonial status quo by utilizing land-bordering methodology which introduces Indigenous knowledge and community as core values through land-based pedagogical practices.
4. To recognize the pluriverse as the worldview where we can let the land and our own epistemologies converse.

3. Teaching about land | Mboe’ehara mba’e : An embodied Practice

“The bits of machinery that make up a decolonizing university are driven by decolonial desires, with decolonizing dreamers... These subversive beings wreck, scavenge, retool, and reassemble the colonizing university into decolonizing contraptions. They are scyborgs with a decolonizing desire” (la paperson, 2017, p.Xiii)

I explore placemaking, wayfinding, relational design, and community engagement as the tools in which to re-read lived spaces. I am bringing in a methodology that I define as **Land-bordering**, which captures the transmission of memories and lived experiences as they connect to the land and the intersections that influenced that experience. It is making “with” the land, to become a space of possibilities.

Utilizing Land-bordering, I propose a design process of dismantling the colonial structures and concepts of modernist design that exacerbate the individual and the universal, by “looking back”, reading place and its history, recognizing its Indigenous Sovereignty, but also bringing in our own epistemologies, decolonizing ourselves and tracing the footprints of a community that in a respectful way aims to build a “world where many worlds can fit.”(1996).

Through different exercises in the class, we take onto a journey of deconstructing the modernist way of navigating built and natural spaces. We dismantle and “re-tool” the university space, utilizing wayfinding and placemaking to design intrinsic relations to the lands in which the university is currently situated.

We take examples of existing wayfinding and placemaking projects, as case studies, analyzing the ontological paradigm of modernist design and the canons that support them. In opposition to that, decolonizing contraptions are created. They are provocations to become custodians of a land that claims its Indigenous Sovereignty.

The first exercise brings the students to a wayfinding exercise where after reading Leanne B. Simpson’s: “The gift is in the making” story, they propose “a way” to let Nanabush find the Anishinaabe people.

A group proposed to listen to the trees and ask them where to go; another thought about developing a symbolic artifact that could convey words and sounds to guide you through. Another group talked about letting Nanabush learn the space and give him time to find his way.

Land is also more than human. It goes beyond us and our relationships and transcends the materiality of our human needs. Listening to the land, we learn that the other species, nature, its multiple creatures and non-creatures are equally part of the ecology of the world. Yes, we listen to the trees, they have a lot to tell.

For the second exercise the students explore placemaking as a context: they communicate through making their readings of the space. The responses were rich and different, bringing, in an introspective way, their own epistemologies into the projects. As an example, one of the students, who travelled back home to Mexico, designed a “Estela” which is a sort of Rosetta Stone that through the storytelling of Tepoztecatl creation brings back the ancient histories of the peoples of Tepoztlan. The Estela has audios in Nahuatl and Spanish and the monolith graphics are made of copper which is the metal that reigns underneath the mountains of the region. Tepoztlan means in Nahuatl: place of abundant copper.” The monolith is situated in the city’s “Zocalo” as a decolonizing contraption that confronts the kiosk: a typical colonial construction found in Mexico’s communal plazas which is centered on the space

The final wayfinding project in the course is a group project that aims to build empathy and community. The students acknowledge their own positionality in the world and its relationship to the land where they are situated through making with the land, building community and a design project that conveys a pluriversal worldview.

The project is a live wayfinding system for the school building that will stay in the making in order to engage each year a new group of students. It possesses a protocol that will pass to the next generations to honor and respect the land, to build community and in reciprocity to embrace the pluriverse

3.1. Sticking Points | Umi mba’e apua: things with thorns

“Ideas run, like rivers, from the south to the north and are transformed into tributaries in major waves of thought. But just as in the global mar-ket for material goods, ideas leave the country converted into raw material, which become regurgitated and jumbled in the final product. Thus, a canon is formed for a new field of social scientific discourse, postcolonial think-ing. This canon makes visible certain themes and sources but leaves others in the shadows” (S.R. Cusicanqui et al. 2020, p.104).

The pluriverse and its decolonial intent is also often monetized and transformed into a commodity. It departs from recognizing the land and denies it by being utilized as a pseudo anti-colonial discourse that in reality only legitimates the same structures of colonial power that opposes. It doesn’t have a place. It is used to talk about a universal and hegemonic space where no specific cosmovision is specified. It is

only multicultural and Landless-ness as the absence of reckoning the place where we are situated and its original history. In America, both North and South, that is convenient for the “colonial matrix of domination” because recognizing the land and its history is to recognize that it was stolen, invaded and that the peoples that own it, were decimated, butchered and massacred and as of Today they keep being marginalized, racialized, violated and stolen over and over again.

Analyzing the physical space of the university with the students raised a lot of questions about how the school was not offering a sense of community and how the “multicultural” rhetoric only serves to benefit whiteness and power structures. Some students denounced that communal art and design spaces where students can work, make and share together were relegated to the most hidden places, so the building still can look clean, “modern” and “good.”

3.2. Indigenous Cultural Advisors | *Ava arandú ojapo mba’e porã: the good things to learn.*

In the process of dismantling the colonial structures and concepts of modernist design, we learn about the land, listening to the Indigenous cultural advisors.

Splash, Indigenous Squamish artist and teacher, Aaron Nelson Moody, tells us stories of the Squamish peoples and reads the space of the university with us. He tells us how the potlatch brings the community together and how the guests come from far away being welcomed and honored as they become witnesses, to carry the learnings while sharing them again with great respect.

Anishinaabe/Ashkenazi Métis (Ojibway-Jewish/Métis) scholar, Dr. Mimi Gellman, teaches us that “experience exists because of place and that place allows the experience to exist. That artifacts are belongings and that survivance is more than survival, it also implies to thrive.” Mimi tells us that we should approach design as a cosmology in order to understand the structure of the universe.

Through the teachings of the Indigenous Cultural Advisors, the students learned how to re-read the space of the university by listening to the land and its history. As an example, listening to the story that Splash shared about him and Kwalanten reaching an unknown coastal community by canoe and how the peoples from that land welcomed them and honored them for days; the students reflected on their own “place” at school and how welcoming the new students but also positioning themselves in the land helps them to engage into a communal intent.

The indigenous teachings carved their mark into the students’ souls as the beautiful artwork that Kwalanten and Splash make carve the sacred cedar tree. We all learned that working together and bringing community members to share in the class space defeated the colonial and individualistic manner of western design. The class as a group of people is what brings the pluriverse together and starts undesigning the colonial space.

The class presented not only the desire to un-design the colonial space of the university but also the possibility of promoting change within that space.

4. The Methodology | *Umi mba’e roikaitu rojapo: the things that we can do.*

4.1. The dimensions of Land-Bordering | *Umi mba’e tekotevé : the things that matter.*

4.1.1. Language/ Epistemology/ Borderlands:

I reflect back on the Guarani language that I speak, as a manifestation of my soul, as my connection to a place where I can go back to layers upon layers of memories, where identity brings forward my different intersections. When we recognize ourselves within our identities we are cultured, we build community.

We create that new world that Gloria Anzaldua calls a new value system that connects us to each other and to the planet. Borderlands as physical margins are limits of soil and material distance: A colonial geography that holds power within those margins, that held captive a land that was never ceded. Borderlands as intersectional margins are marks in our souls, they are carved wounds defined by a culture that we abide to or not. When we are racialized, segregated and discriminated against, we hide our souls in these margins, we merge, we don't contest, we colonize ourselves over and over again. When we see ourselves represented, we claim our Identity. We are "uno" that is multiple, we carry all of our ancestors, our soil, the unforgotten history of our Indigenous identity. We also recognize ourselves and the land: the land where we come from and the land where we are standing on. Thus, we start creating *a world where many worlds can fit*. A world to interconnect in our heterogeneity, where we listen to the land and we make our Indigenous voices visible.

4.1.2. Land/ Axiology of Place/Pluriverse:

Land-bordering for me is a methodology that sits on an onto-epistemic framework. It explores how to restore our own epistemologies towards a necessary ontological shift, looking into the "axiology of place": the set of values that we bring into our relationships with others and with the land/our planet in its vast but fragile singleness. Recognizing my own identity and bringing in my own cosmology to the land, the unceded territory of the Musqueam, Squamish and Tsleil-Waututh First Nations where I am now situated, assists me in defining the design space within an embodied practice on this land. Within my Guarani cosmology, one cannot separate one's philosophy and epistemology from the land as they are an interconnected philosophical system. I acknowledge, respect and embrace the land as an active participant. In my work as Cora Webe R-Pillwax calls these the 3 R's of Indigenous research and learning: "Respect, reciprocity and responsibility are key features of any healthy relationship and must be included in an indigenous methodology [...] From an epistemology and ontology based upon relationships, an Indigenous methodology and axiology emerge." (p.77.)

I believe that the study of values and how our epistemologies and ontologies manifest with that emergent axiology need to be part of the decolonial narrative towards reconciliation. Indigenous knowledge is based on intrinsic values that connect beings to the land in the pluriverse as the space where Indigenous research knowledge becomes a decolonial design practice for social innovation. It is the start point to bridging and building meaningful connections.

4.1.3. Intersections/ Mestizaje/ Indigeneity:

I am defining the "borderlands" as the intersections found within my own mestizaje (multi-ethnic heritage) and I explore the memory of Indigenous histories that colonial desires buried by creating taxonomies of race. The "mestizaje" in Latin-America has sustained a violently imposed hegemony through a forced colonial domination. Coloniality confused our histories and "assimilated" our Indigenous identities turning our "mestizaje" into human fabrications. These imperfect and entangled intersections of European and Indigenous intermixing created the "subaltern, la "morena", the other, that could be enslaved, negated and dominated.

Indigenous peoples are marginalized and so the possibility of conveying alternative epistemologies.

"Marginality is an interesting paradoxical concept for people and things. On the one hand, membership means the naturalization of objects that mediate action. On the other, everyone is a member of multiple communities of practice. Yet since different communities generally have differently naturalized objects in their ecology, how can they naturalize the same object differently since naturalization by definition demands forgetting about other worlds?" (Bowker and Star, 2000, p.302).

In recent Latin decolonial theory presented by Mignolo, Grosfoguel, Escobar and others following the theories of Anibal Quijano, they talk about the colonial matrix of domination and the powers of hegemony that sustain the modern world as one of the most powerful tools of colonialism. Marisol de la Cadena (2000) describes hegemony as “denoting an ambiguously defined dialogic field shared by elites and subordinates, where a dynamic of power struggle characterized by constant agreements and disputes, and by domination and insubordination, produces a conflict-laden consensus, usually narrow, yet politically crucial”(p.9). She analyzes Indigenous mestizaje as a “negotiable racial ranking”, whereas being mestizo can have different positions in class according to the education received. This brings to the table another aspect of colonial hegemony: assimilation: Whilst white scholars preach that alternative epistemologies are welcomed and “included.” Why do they still talk about the modernist canons and structures as the only valid models? Why, specifically in design, do we still receive/give in classrooms, instruction that promotes the universal, individualistic human being as the center of the world? I believe that it is because the methodology of assimilation that modernism proposes also implies systemic appropriation. The ideas and new knowledge collected from Indigenous or alternative epistemologies are extracted, converted and subverted. It is part of the project of “enlightenment” that organizes knowledge and classifies it bringing in the rational, individualistic and humanistic approach of (Neo)liberalism.

5. Emergences & Co-creation | Umi mba’e ndoikua’ai: Uncertainty

Emergences of a diasporic soul converge in moments of reflection. Inclusion is proposed as a way of doing something good in order to bring a promise of “happiness” for the marginalized being. Is that inclusion or assimilation? How many times does the other voice ask? How many times does the other voice scream while their body bleeds?

In academic institutions fairness or rightness is accompanied by obscure patterns of colonial desires. The rights and wrongs are determined by the canons that oppose the winds of change always and ever. Thus, we know, thus we search, thus we get always the same response. Intersections as marginal borders become real when the woman, the colored, the activist, **the other** has something to say that punches and that questions the status quo. Inclusion is assimilation as defined by the structures of power. They don’t want us to be included. They want us to follow, to bow, to engage in a perpetual act of conformism. “Multiculturalism is an act of assimilation” (A. Escobar, Pivot 2021).

When Inclusion of diversity becomes a commodity for white supremacist structures, it gets presented as an aggregated value that is collected as a single set of knowledge which is attributed to an exotic and intriguing alternative world. This is done by denying that original cultures have their own intrinsic ways of being, knowing and doing in relation to nature and their particular cosmovision.

Aggregating alternative epistemologies in the same bag, conforms with colonial standards of classification. The others are all the same, in different shades of darkness, in different sets of languages and costumes, but ultimately always from a lesser intellect and race. Otherness is related to weakness and to having a permanent capability of being subdued and conquered.

Confronting the standard modern canons, by acknowledging the land where we are situated and by building a community of shared knowledge in a respectful and participative way. We don’t abide by a universal world which focuses on individual progress, we look into the pluriverse where many worlds can co-exist.

Foucault said that the world at the end of the XVI century was a universe that was folded in upon itself, conveying that the planet itself was of use to man. At that time, there has been almost 100 years since the great discovery, since men found “the new world”. Even then, most indigenous peoples in America

were either exterminated, subdued or enslaved. The colonies were very much settled and so the seed of the new system of the modern world. The European man (as male as it sounds) was the main actor. Nature was at his mercy, resources in their plenitude were extracted to serve and feed the “old world.” That’s when we started lying to ourselves about a universal desire. When greed and power were consolidated based on hegemony, similitudes and beliefs promoted as salvation of the savages and service to pseudo God’s empires: Spanish, British, Portuguese, French, Dutch and so on. The table was set, and this man was having a banquet.

Creation and discovery were the words that stablished as a canon, the positional superiority of western knowledge. There was no room to build things but by following and copying the European models of “civilization.” Western history plays its role as a reminder of the facts. Indigenous knowledge plays its role as a witness of histories that persisted and were preserved by memories of the land carved in souls that never forget.

“Designing collaboratively with people (co-design) is to immerse in emergence and chance while attuning into slippery, un-namable tones and expressions that can only be sensed through our feelings and bodily encounters in relation to other people, materials and entities so that we embrace that we are creating, transforming and becoming together among this heterogeneity.”(Akama et al, 2015, p6)

Co-creation is emergence. It proposes the acknowledgement of being part of an ecosystem where we co-exist, where humans and non-humans transcend time in worlds that ended and started many times.

Uncertainty for me is hope. It sets the conviction that we don’t know and that we will never know all. That **“The Future is Indigenous”** as Jason Lewis states. As whereas Indigenous means being native, being of the land and therefore being of nature and the world. Then creating in design means something different. It means heterogeneity. It means an effort within the community. It means being “landed”, “placed” within an ecosystem where we co-create with other humans and no-humans, transgressing binaries and promoting alternative futures.

5.1. Decolonizing Education | Umi mba’e reikoteve: the things that we need

Colonial education and its structure erased much of the aboriginal literacy that was part of the rich cultural background of aboriginal peoples in America. Religious doctrines that came to America to *civilize* and *christianize* the barbaric *Indians* put a lot of effort into deleting or deviating aboriginal ways of knowing and communicating. It not only denied the value of these different literary traditions but also tried to instill Eurocentric knowledge and written literacy as the only valid way of education.

In Paraguay, the Jesuits with their “Missions (1587-1767) created an infrastructure during two centuries where every aspect of European culture was transferred to the aboriginal peoples as the ultimate way of living. They established the written guarani language, adopting the latin alphabet with specific grammatical and orthographic rules similar to Spanish language.

This was recurrent in American Colonization, in both the Global North and South. One of the tools to set western knowledge was to erase original languages and infiltrate cultures through establishing the new colonial canons in education. The horrific recent history of Residential Schools in Canada, where children were abused and killed is just another vivid reminder of how colonialism endures. Our voices, as designers and scholars, need to have an assertive tone. We need to confront and denounce these wrong doings within the space of educational institutions to assure that they don’t happen again. The colonial paradigm keeps prevailing because when we attempt to decolonize, we keep repeating the same patterns and processes that we learned in our colonial upbringings.

I believe that decolonization has to be an act that brings alternative ways of doing and knowing through incorporating them as part of a new canon. The infrastructure has to be built with new foundations. We cannot keep adding walls on top of a damaged structure. We need to build connections within that new infrastructure making it solid and valued to start displacing the colonial canons.

We also have been perfecting the destruction of our planet. In our Guarani cosmovision, the search for Yvy mara'ei (the land without evil) makes the Guarani "peoples of the land" build a connection with the earth that is based on care and respect. The soil can give us its riches only up to when she wants. And we take only what we need to subsist. We help her rest and we move when we know that we can cause her any harm.

The "peoples of the seas" from Oceania, as Epeli Hau'Ofa explains, live in the ocean as a network of beings that share "a sea of islands". They take care of the ocean and as the peoples of the land, they take only what they need and move away to let the fish and the riches of the water rest and reset.

I learned from this that if we start understanding the ways of knowing and being of the peoples of the land and the peoples of the seas, we can acknowledge that our planetary boundaries delimit our world and that we are a vast, unique and heterogeneous network of beings, **a web of selves** that live on a big island. We cannot go further from the limits of the ocean and the limits of the soil.

The world is a sea of connections, rhizomes that reach to each other no matter what. Connect-ing becomes reaching out, positioning our heterogeneity, our borderlands and diversity in a place of care. The social interaction defined as the act of communicat-ing among beings, creates emergences within that sea of connections. It defeats colonial thinking. It confronts the naked truth of a capitalist model that doesn't work and never worked. This sea of connections is the space to unlearn modernism and anthropocentrism.

Constructing the infrastructure utilizing our geographies of selves as the connectors, we can start to recognize our different identities to converse in this web of selves. We also create sustainment when we begin to understand that we are just one big ecosystem. So, we can start **land-border-ing**, being of the land and for the land, therefore we move from the margins and we listen to the voices past, present and future that convey a new paragon within the pluriverse.

"Quiero ser el dueño de mis sueños y caminar seguro por un suelo, donde mis huellas duren. Quiero escuchar las voces de la Floresta y encontrar en sus heridas una esperanza acompañada de otra, y de otra. Quiero encontrar momentos quietos donde el viento sople y el sol caliente, donde el dolor de la raza y tu indiferencia sean ajenas y solas. Quiero saber tu nombre, che Sy, (mi madre Tierra) y guardarlo en el medio de una historia que se escriba desde siempre, recordando tus memorias. Quiero luz, agua, vida, paz, amor, alegría, una tierra donde ser para mis hijos. Una tierra donde la mirada opresora, racista, discriminadora se confunda y se pierda en el cambio, en un acto, en donde el pueblo resurja y desentierre la verdad de tus historias."

"I want to be the owner of my dreams and walk on a soil where my footprints matter. I want to hear the voices of the Forest and find in its wounds a bit and a lot of hope. I want to find quiet moments where the wind blows, and the sun is warm; where the pain of racism and its indifference can be alien and alone. I want to know your name, mother Earth, and keep it in the middle of a history, that can write itself forever, remembering your stories, reckoning your memories. I want light, water, life, peace, love, joy, an earth for my children. An earth for our beings to peacefully converse; where oppression, racism, discrimination, hate can get all confused and lost by change, by actions, by people's claim of unearthed inheritances."

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About the Author

Pat Vera is an architect, designer, educator and researcher with 15+ years of practice. Her current research focuses in incorporating Indigenous knowledge and alternative epistemologies into land-based design and pedagogy, promoting the Pluriverse as the space in which to converse among different worldviews. Pat brings in her own cosmovision from Paraguay, with the Guarani language that she speaks, as a way to recognize her own borderlands: those cultural borders that she redefines as intersectional margins, where the racialized view of capitalist and modernist societies define and delimit geographies and cultural identities, creating oppression, discrimination and marginalization. Pat is a Sessional Faculty at Emily Carr University of Art & Design, teaching Core Design studio courses and Interdisciplinary Design since 2014. She is an ECUAD MDes 2022 candidate in Interdisciplinary Design. She is a proud member of the Vancouver DESIS Lab and a DESIS Scholar 2021. She is also the 2021 ECUAD Fellow in Decolonization for her research in Decoloniality and Pluriversal Studies and a member of the Design Justice Network.

Participatory Site-Specific Performance to Discuss Climate Change and Water Pollution

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The phenomenon explored in this research is participatory site-specific performance art, themed around eco-violence, climate change and water pollution, which is discussed within a framework of the decolonisation of knowledge through arts-based action research and a pluriversal approach to participants' experiences. The two case projects were conducted with youth and children aged 6-13 y.o. from Kaunas, Lithuania. The data gathered during the two case projects include photo and video documentation and my notes. Via the examples of the provided cases, the present study explores how the transcorporeality of the space and site of a participatory site-specific performance can be used to discuss eco-violence, climate change and water pollution with a young audience. The research presents tools that performance artists can use to properly utilise the site, space and transcorporeality to start a dialogue with their audiences about environmental issues in a Lithuanian context. The research results are interesting for performance artists and educators who are working with performance pedagogy and participatory performance art in the artistic and educational milieus or targeted at the local businesses and companies.

Performance; arts-based research; pluriverse; transcorporeality

1. Introduction

The phenomenon presented in this research is participatory performance themed around environmental issues – namely climate change and water pollution. The two cases addressed in this study are performances presented by Dr Julia Kurek and myself, PhD Cand. Marija Griniuk, implemented within the framework of the project *The Nomadic Radical Academy* (2019 and 2020) at the Gallery Meno Parkas in Kaunas, Lithuania. The study takes an innovative approach to the framework of decolonisation

of knowledge through the media of participatory performance within the arts-based action research and pluriversal approach to the experience of participation. The research problem is defined as follows: There is a lack of tools, specifically within participatory performance, for interdisciplinarity and decolonial thinking in the projects themed around nature and the environment (Fisher, 2007). The aim of the present research is to analyse the two provided cases and define the tools needed for their implementation. The study's objectives are as follows: to map the theoretical framework of arts-based action research applied within this study, to understand the key terms and to analyse the cases within this research from the perspective of the decolonisation of knowledge as a pluriversal approach to participation. The research question answered by this study is, 'How can site-specific participatory performance be utilised as a means for decolonising knowledge about care towards nature and the environment among children and young people?'

This paper consists of three parts. The first part explains the theory behind arts-based action research and defines the terms *performance art*, *space*, *site-specific* and *transcorporeality*. The second part describes the cases. The third part investigates the tools applied by the artists within the cases. These tools are extracted and contextualised within the framework of the pluriversal experience as decolonisation of knowledge.

2. Methods and terms

This study is developed by means of arts-based action research. The method employed was shaped by the group of scholars at the University of Lapland (Jokela, 2013; Jokela, 2017; Härkönen, Huhmarniemi & Jokela, 2018). It was aimed to promote the recognition of the existing problems within the researched field and developing a multiplicity of possible solutions by using the arts as a medium to interact with research participants (Jokela, 2013; Jokela, 2017; Härkönen, Huhmarniemi & Jokela, 2018). Arts-based action research within this study follows the developmental approach and is designed using research cycles, each of which starts with the idea and the pilot project and finishes with the evaluation phase (Jokela, 2019). Within *The Nomadic Radical Academy*, three cycles were completed and designed around data collection from the two pilot projects in 2019 and 2020. The first cycle focused on network-building strategies within the case projects (Griniuk, 2021). The second cycle focused on interaction and experience design through arts-based methods with the involved children. This paper is part of the second cycle of the research. The third cycle focused on enhancing children's creativity by means of participatory performance and resulted in one paper (Griniuk, 2021, in print).

The materials gathered during the two cases presented within this research are notes, photos and video materials from the case performances. The cases are either implemented by me or witnessed by me from the perspective of an audience member during the arts-based action research project *The Nomadic Radical Academy* 2019 and 2020. The data are analysed via a visual and verbal narrative analysis within arts-based action research.

Performance is a broad field with many sub-disciplines – in particular, participatory performance art merged with action research can impact the communities involved (Coghlan & Brydon-Miller, 2014). In order to understand the relationship between performers and their environment, it is necessary to define the concept of *space*. The term *space* has been used throughout history to refer both to the physical world and mental states (e.g. thought) (Stock, 2015). Space is the emplacement, distribution and connection of entities, actions and ideas (Stock, 2015). Physically, the term *space* is used to refer to any area or volume where matter is located (Stock, 2015). In addition, the word *space* refers to an area or environment that is not occupied by matter. *Space* is used to refer to the imaginable areas that exist in the brain or mind (e.g. the space between the past and future or the space between conscious and

unconscious thought). In speech, *space* is sometimes used as a metaphor to describe aspects of language (Auer et al., 2013). For example, the space between words can be compared to the silence between sounds. *Space* in performance is a state of mind that encompasses all physical properties, including time and location (McAuley, 1999). By using text, storytelling, lighting, sound, and other elements, the size and feel of a space can be changed to suit the purpose of the performance (McAuley, 1999), which, in this study, communicates themes of climate change and water pollution for the young audience.

The term transcorporeality refers to the ability of the performer's body to be affected by his or her environment (Alaimo, 2018). "Trans-corporeality means that all creatures, as embodied beings, are intermeshed with the dynamic, material world, which crosses through them, transforms them, and is transformed by them." (Alaimo, 2018, p. 2). Transcorporeality has a social and political influence on the human body in the moment of perception at the site of a performance. In other words, the site of performance involves the social and political constructions of bodies through artistic expression, which is meant to be perceived by not only other human bodies but also technology-empowered bodies.

Performance scholar Mike Pearson (2010) explains site-specific performance in the context of placeness. *Site-specific* performance is a work of art that is created to exist in a specific place (Pearson, 2010). The artwork gains something (be it aesthetic, cultural, or social) by virtue of its location. This term is used to describe the location of a performance and the impact that the site and local narratives have on the transcorporeal experience. Site-specificity describes the location of a performance and the impact that this site has on the transcorporeal experience. The idea of a site-specific participatory performance and its meaning is not vastly different from the notion of a theatrical production being site-specific. The action on stage is greatly influenced by the audience, which is a concrete feature of the site. The same can be said of a participatory performance.

Pluriverse is the vision of a world in which many worlds would co-exist (Mingolo, 2018). The concept of *pluriverse* builds on explanation according to the scholar Arturo Escobar (2017) and can be compared to the weaved alternative realities co-existing in one site of performance artwork, as if it were a tapestry. It addresses a social understanding of performativity and performance design, referring to the multiplicities of the experiences of the people involved in the community, who come from diverse backgrounds.

3. Cases

This research is based on the two cases from *The Nomadic Radical Academy* 2019 and 2020, where one of the cases is conducted by scholar and performance artist Julia Kurek and the other by me in the position of the principal investigator within this study. The projects of *The Nomadic Radical Academy* involved groups of international artists and scholars. Tue Brisson Mosich, Nanna Ylönen, Marta Gil, Sanna Blennow, Rikke Goldbeck, Anne-Louise Knudsen, Anders Werdelin, Adomas Danusevičius, Evelina Šimkutė and Raimondas Binkauskas, among others, participated in *The Nomadic Radical Academy 2019*. In 2020, the participants were Julia Kurek, Evelina Šimkutė, Rait Rosin, Tue Brisson Mosich, Julija Rukanskaitė, Linda Teikmane and Kaspar Aus, among others. Both participatory performance events took place at the gallery Gallery Meno Parkas in Kaunas, Lithuania.

Both cases targeted children aged six to 13 years old as the primary audience. The data were collected following the ethics of research. All visual and sound data from the events were taken after written agreement had been received from the children's parents regarding the photo and video documentation of the groups of children during the performances. In the 2019 event, 12 children participated, while around 20 children participated in 2020. The children were diverse in terms of their gender and

originated from families with various backgrounds: some children were from international families, while the majority were from Lithuanian families. While a few of the participating children were from the families of the artists and employees of the gallery and, thus, were directly connected to the project in 2019, most of the children were invited via an open call. Participation was voluntary, and the families submitted applications approximately a month before the events took place.

In 2019 my performances lasted an average of five hours a day; in 2020, the duration of my performances were 9.5 hours a day. I stayed with the children during the active moments of performing, as well as during the breaks, when the children interacted with each other in an unconstructed manner. The performative activity, which lasted from 20 minutes to 1.5 hours (with breaks in between), was themed around responsible consumption and empathy towards nature.

I initiated the session of costume-creation from the recycled materials, during which the children created their characters – often a real or fantastical animal or creature, such as a bat or dragon. These costumes were developed during the daily sessions, which lasted up to four days, and were actively involved in the performative movement-based activity. In this way, the primary message promoted the rethinking of the concept of trash and creating value from objects that were perceived as trash by their previous owners. The children extended this narrative to their own interpretations and stories as the characters were created and added into the space of performance.

The other activity that involved deconstructing the concept of trash was rearranging old posters (donated by the gallery) into the fragments of the tents that the children created and formed into a shantytown in the space of performance. This action in 2020 was an immersive echo of the event in 2019, as the artists built the tents and the children occupied them during the performances and breaks. In 2020, the children self-initiated the building of the shantytown in small groups and incorporated diverse materials, such as large format recycled paper and old posters.

Such embodied actions were followed by discussions about the framework of recycling, value deconstruction and eco-violence conducted in the past in Lithuania during the collective farming as initiated during the Soviet occupation and responsible behaviour of our generation and empathy towards nature. In other cases, the discussions were planned as separate performative sessions. For example, in 2019, the discussions were facilitated by me and performance designer Tue Brisson Mosich. All these discussions were not didactic but rather invited the children to contribute their narratives about nature and agriculture – for example, if their grandparents had been involved in farming. This narrative led to a discussion about water quality and the use of herbicides and pesticides in farms, both in the past and present.



Image 1: The Nomadic Radical Academy (2020.) Performance by Marija Griniuk, recycled materials. Source: photo by Airida Rekštytė.

The children's recommendations on how to recycle and reuse items when discussing responsible behaviours were of great value. The focus of these sessions and discussions depended on the children and their capability to extend the discussion or leave for another activity. Sometimes it was easier to discuss these topics with the older children, while other times the sparks within the narrative came from very young participants. In each of the projects, my performative actions, along with the breaks between the sessions, were developed from the role of moderator and facilitator to the role of the human being in the space of performance with the children. This state of being blurred the frames of the constructed teaching situation with the didactic purpose of the event. As such, it opened the space of multiplicities of expressions co-existing in the creative immersive flow themed around the empathic interconnection between humans and the environment. This culminated in the final performance, which was done in conjunction with the children, in which the children painted on my body collectively, which conceptually underlined the deconstruction of power relations and individual responsibility within the collective action.



Image 2: *The Nomadic Radical Academy* (2020.) Performance “*In the Deep of Plastic*” by Julia Kurek at Meno Parkas Gallery. Source: photo by Airida Rekštytė.

The case by Julia Kurek *In the Deep of Plastic* has a different framework than my performative actions and was realised as a 30-minute performance within *The Nomadic Radical Academy* in 2020. The performance has the segments of liminal states and a clear indication of the start and end, along with a clear call for action towards the audience. Within the performance by Julia Kurek, the space of performance was the second floor of the Gallery Meno Parkas, where the focus was creating the empathic aesthetic experience of sea life polluted by humans. The vignette from my notes illustrates the feeling within the performance:

The artist is covered by a fisherman’s net, which covers the entire floor of the performance area. The seawater is projected onto the performance area. The used plastic bottles are under the fisherman’s net. The artist starts to move. The movements express the desire to break out of the net, and the bottles start to make cracking sounds as the artist’s body intervenes with them. I glance at the children, trying to see their reactions in the darkness. Few of us are sitting on the floor, and one girl asks if she can bring up her phone and film. The boy moves closer and closer to the net. He puts one of his legs under the net and looks back at me.

This vignette shows the differences in the children’s needs while interacting with the performance in the phase where the artist performs alone. The second phase of the performance is the artist’s invitation to

the grown-ups to co-perform as she comes up to selected audience members, places the plastic bottle in between her body and the audience member's, and pushes the plastic bottle until it is flat. In this phase, the children are the observers, but they also receive an indication of the invitation by the artist to co-perform. In the third phase, the artist invites the children to step into the space and actively flatten the plastic bottles by jumping on them, after which they collect the flattened bottles into the net and carry them to the site of installation on the ground floor of the gallery.

Immediately after the performance, the children are invited into the discussion circle and are asked how each of them experienced and can interpret the performance. After the discussion, they each draw the performance. In this final phase of reflecting, the experience is in the core focus on the self and selves expression of the thoughts through both verbal and visual narratives, each of which is valuable in the phase of understanding how the artwork resonated with the audience and what it communicated.

4. Tools contextualised within the framework of the decolonisation of knowledge

The act of decolonising knowledge can be seen in the pluriversal approach to the experience of participants of the performance artwork. This leads to an enriched discussion around the main topics of eco-violence, climate change and water pollution. These are not only built on the mediation of these difficult themes by means of performance but also involve the participants in co-performing and sharing their thoughts during the artwork or after the artwork is completed. The facilitators come from different backgrounds as facilitators-performance artists represented the international artists' community. Few of the children, especially during *The Nomadic Radical Academy 2019*, originated from international families, which contributed to the diversity of children's previous experiences. Those children were from the artists' families, who were directly involved in the project, which contributed to their familiarity with the art venue and the manner of behaviour within the art project. Furthermore, the different ages of the children varied from six to 13 years old. This led to the large scale of the interactions both between the facilitating artists and the children and among the children themselves. All these elements contributed to the grand scale of the strategies developed by the artists. They were built on the pluriverse of the participants' experiences before the two projects of *The Nomadic Radical Academy*, which shaped their way of being and expressing themselves during their participation. The themes of eco-violence, climate change and water pollution were familiar to all participants to a certain extent. The conversations and co-participation were built around the value of each contribution. A pluriversal approach to participation can be followed to decolonise knowledge and open the site for the multiplicity of alternatives. The main tools extracted while analysing the provided cases are pluriversal canvases, pluriversal sensorial experiences as the multiplicity of "selves" and pluriverse within site-specificity.

Tool 1: pluriversal canvases

In the performance by Julia Kurek, space is an important element. Her body becomes the metaphoric canvas within the space of performance. The space of the gallery is rearranged during her performance to mediate and narrate the problem of water pollution by plastic, pesticides and herbicides and its impact on the living organisms and her body is the narrator of the embodied action.

In traditional art, a canvas is a two-dimensional surface upon which an artist applies paint. The purpose of the painting is to create a visually pleasing work of art. Julia Kurek breaks this framework within her performance as the body becomes a "canvas" for transcorporeal artistic experiences. In this case, her body, as the canvas, indicates liminality. The artist no longer has total control over the experience of the

audience members but is rather designing the segments of liminality before the transformation within the performance happens. The audience members influence and change the nature of the artwork itself when invited to co-perform within the space. The audience members' bodies and minds become intertwined with the artwork. The artist designs the collective experience, consistent with multiplicities of pluriversal experiences, as she clearly indicates the moment when the children can step into the artwork and co-perform; she also steps into the audience space and co-performs with the few grown-ups. However, each of the participants has their own separate experience of co-participation. Based on their individuality, the participant will have control over how the experience is ultimately displayed on their body and mind, as another metaphorical canvas in the space of performance. Thus, the space of performance influences the transcorporeal immersive space and produces the multiplicity of pluriversal canvases – in other words, interpretations based on individual narrations of what performance artwork contains.

In the case of my immersive performative actions, my body becomes the pluriversal canvas over time, being in the space for the durational time of interactions daily. My body changes each day. My body experiences interchanging vocal capabilities or even pain in the muscles after a certain activity. My mind analyses and adapts to the performative actions as the days of the event unfold. In other words, the content of the performative actions is constantly reshaped and adapted according to the daily observations of the needs and interests of the participants. By the end of the nine-day performative action, this metaphorical pluriversal canvas becomes the actual canvas, as the children paint my body during the final performance. I become the live canvas for the children's collective painting. As in the performance by Julia Kurek, in the final performance by me and the children, the children reflect on the impact of the durational interactions and, on their behalf, voice their contributions using the colours applied to my body. They imprint their contributions in this way. The multiple pluriversal canvases are thus imprinted on my body.

Tool 2: pluriversal sensorial experiences as a multiplicity of "selves"

The Nomadic Radical Academy builds on the sensorial experience within the site of performance, where the space can be read as the visual, sonic and verbal narrative. Smell is integrated as the active contributor to some of the indoor sessions, while in the other sessions the outdoor setting serves as the component of the space. Meanwhile, taste as the sense is involved in all the collective meal sessions. A transcorporeal artistic experience engages all of the participants' senses on a very subjective and intimate level. Sight, sound, touch, taste and smell are all engaged by a transcorporeal artistic experience within performance artwork, such as is the case in The Nomadic Radical Academy. The senses are the keys that activate memories or previously experienced spaces. The participant's mind combines all of these sensory inputs to create a complete experience – the above-mentioned pluriversal canvas is unique for each of the audience members due to their unique embodied previous experiences and memories of actions and places. This partly determines the content of the experience itself. The individuality of experience becomes especially evident at the end of the performance by Julia Kurek, where the reactions vary greatly: while some of the children applaud, one of the participants goes to the artist and hugs her.

The experience begins with a single point of reference: the participant's own sense of self. In the performative actions by the principal investigator, the durational performance is targeted at constructing a collective narrative based on deepening the investigation into this sense of self. A person's self is a combination of many factors, such as their personality, gender, age and beliefs – these factors were diverse within the group of children involved in The Nomadic Radical Academy 2019 and

2020. These diversities evolved into the internal patterns that highlighted specific aspects of making and being, as well as the segments of concentrated activities and free interactions.

The sensorial experience reacts and adapts based upon the person's own "self". The sensorial experience uses the person's own "self" as a point of reference to tailor the experience towards that individual. The sensorial triggers are primarily the space, the materials and the people within the performance. The experience is not simply imposed upon participants, but it involves active construction that evolves as the project unfolds. The participant's own "self" is central to the experience and requires that the participant is open, compassionate and empathic within the space of performance. It also allows the participant to take an active role in the experience and co-creation for other participants. Pluriversal sensorial experiences, as a multiplicity of "selves", is achieved throughout the performance.

Tool 3: pluriverse within site-specificity

The Nomadic Radical Academy is a site-specific participatory performance project, as it addresses the local issues of the colonial past, eco-violence, water pollution, climate change and responsible consumption, all of which are part of the global discussion and call to action. Site-specificity is within the local narratives of the local community that become activated during the immersive performative actions. The pluriversal participation allows the wide spectrum of the local narrations and experiences to unfold, along with the global call for empathic connection to the natural environments. The conversations with the participants concern the narratives of responsible consumption, ecological agriculture and respect towards nature. As the participants and facilitators contribute through their experiences and storytelling, all of them can be viewed as part of the wide perspective of change and promote the rethinking of human actions. The Lithuanian context of The Nomadic Radical Academy allows us to investigate the depth of colonial history. These discussions involve eco-violence conducted during the decades of colonisation, including the nuclear power station, environmental pollution and the construction of the draining systems during the collective farming, which destroyed the swamps and biodiversity connected to them.

The other interesting, recent aspect is that in most Lithuanian cities the system of recycling domestic waste was introduced recently and includes the time of adapting and gaining the new habits of sorting domestic waste. Therefore, the thematic approach taken by me during the performances based on rethinking the concept of waste is explicitly site-specific in regards to the implementation of the project in Kaunas, Lithuania.

Julia Kurek addresses the local issue of waste, specifically plastic, in the Baltic Sea. She states that it is explicitly the locals' responsibility to solve the issue of water pollution and its impact on life and biodiversity. The artist opens the discussion and calls for action. Although all these points are obviously part of global environmental problems, it is important to address the local narratives, and pluriversal site-specificity plays the most significant role in this regard.

On the other hand, site-specificity falls within the implementation of the project in the space of the gallery with the participants, and the situation which occurs as the project unfolds is site-specific. The pluriversal site-specificity can be experienced within the liminal phase of the performance, as each of the contributions by the involved participants directly impacts everyone within the performance. The responsibility to engage in eco-friendly behaviour cannot be addressed only by individuals. The companies within agriculture and industries need first and foremost to change how they operate. Site-specificity within the discussion can extend to adopting projects such as The Nomadic Radical Academy to facilitate discussions involving local businesses, companies and industries, as the pluriversal approach

could lead to the development of a multiplicity of scenarios in which people can change their routines and become more eco-responsible.

5. Conclusion

The study explores, via the examples of the provided participatory performance cases, how the space and site can be used to discuss climate change and water pollution with performance participants. The research clarifies the three major tools used to decolonise the knowledge following a pluriversal approach while working with participatory performances themed around environmental issues: pluriversal canvases, pluriversal sensorial experiences as a multiplicity of “selves” and a pluriverse within site-specificity. With pluriversal canvases, the performer’s body is impacted by the participants, and the participants’ bodies are impacted by the performer and the other participants during the performance. Pluriversal sensorial experiences as a multiplicity of “selves” are each participant’s immersion in the space, based on their previous experiences. Pluriverse within site-specificity involves targeting local problems, which are part of global pollution, and developing scenarios towards the eco-friendly change. These results can be applied in similar projects aimed at pluriversal participation. The research results can be interesting for performance artists and educators working with performance pedagogy and can be applied to the larger scale of projects targeted at companies and businesses.

6. Acknowledgement

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Rearticulaciones: Desmantelar y reensamblar el futuro-pasado desde la perspectiva del Diseño del Sur

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La idea de las rearticulaciones y nuevos conceptos propuestos parte de entender que como civilización estamos atravesando por una crisis nunca antes conocida de la existencia en el planeta (Escobar 2019, Fry 2012). La especie humana ha alterado los ciclos naturales¹, asimismo, su manera de relacionarse entre sí ha conllevado una crisis social reflejada principalmente en la desigualdad, que se ha convertido en un ciclo que repercute en el deterioro ambiental². De allí que se requieren plantear y hacer ingentes esfuerzos por desmantelar y rearticular las acciones humanas negativas para nosotros mismos y el ambiente pero esta vez de otro modo. En este panorama se ha venido desarrollado la tesis de doctorado en Diseño y Creación REARTICULACIONES, acercándose no solo a pensar de manera innovadora las prácticas redirectivas³ en la dinámica del mundo contemporáneo sino, además, acercándose a otras maneras de ver el mundo que han demostrado ser mucho más armónicas con todos los seres. Declaramos entonces que estas son proposiciones emergentes que le apuestan a transformaciones estructurales. El presente texto da cuenta de los promisorios campos de praxis de lo que denomino ARQUEODISEÑO, prácticas integrativas para la recuperación de las técnicas ancestrales bajo la perspectiva del Diseño del Sur (Álvarez R. y Gutiérrez B. 2017), como ejemplo de ello se describirá más adelante -la vuelta al torno de volante- dentro del estudio tecnológico como parte de las prácticas redirectivas. Lo anterior entre otros, ha permitido

¹ Múltiples evidencias e informes científicos relevantes se pueden consultar en el *Intergovernmental Panel on Climate Change (IPCC)* (www.ipcc.ch).

² Seamos claros, somos una especie insostenible en especial al proteger las libertades en detrimento de la Madre Tierra, (“¿se puede elegir ser o no sostenibles hoy en día?”, ¿esa la elección que nos ofrecen las democracias?) (Fry, 2011, págs. 38-42). Fry nos invita al imperativo del sostenimiento (2011, pág. 172).

³ Se consideran prácticas redirectivas producto de un ejercicio de diseño ontológico, tal como se ha entendido el planteamiento que hace Tony Fry (2004, 53-70; 2011, 42).

emerger lo que denomino ALLWIYA KAMAY (quechua), pues en múltiples culturas no occidentales (los pueblos Abya Yala) ha venido reconociéndose, estudiándose y recuperándose una tecnología (otra) y por extensión también aplica al diseño (otro) que practican estas culturas, vernáculos, tradicionales (Illich 2017, Deloria Jr. 2001) y que son respetuosas del ambiente, de los otros seres y en armonía convivial, en donde se asientan (Illich 1980).

Palabras clave: Arqueodiseño, Allwiya Kamay, industriosidad, herramientas conviviales, rearticulaciones.

1. Introducción

Dentro de esta propuesta *Allwiya Kamay* es asumida como una *chakana* (puente, transición) que entreteje esta cosmovisión alterna promisorio, allí tienen lugar las HERRAMIENTAS CONVIVIALES, un revelador punto de encuentro con lo que planteara Ivan Illich (1973); por supuesto, estas herramientas además de poner al conocimiento y lo artificial en su justa medida frente a un buen vivir⁴ y la realización de lo comunal (Escobar 2019), incluyen una perspectiva celebrativa, de cuidado, simbólica y de espiritualidad, puesto que estas herramientas son consideradas aquí como entes, seres que nos acompañan (Deloria jr. 2001; Estermann 1998; Pradilla R. 2014; Walsh, García, & Mignolo, 2006).

En consecuencia, las herramientas devienen de una especial INDUSTRIOSIDAD⁵ que se revisa etimológicamente con la elaboración ingeniosa de artificios los cuales se prefiguran y se llevan a cabo conforme a un propósito (espiritual, simbólico, celebrativo y de uso), alterno al diseño y fabricación de artefactos contemporáneos. La necesaria interdependencia entre el diseño y la operacionalización fáctica (realización) intencionada, es lo que hace que todo diseño sea industrial. Lo anterior quiere decir que los procesos intelectuales encuentran su contraparte-complemento con la realización, propiamente -la praxis del diseño-. Por lo tanto, aquí la fabricación y seriación (producción en masa) son instancias diferentes a lo propiamente industriosos que planteamos.

La industriosidad resulta más cercana al diseño y de hecho este concepto le antecede, ya que, como actividad propositiva, pretende mediante artificios transformar la realidad (Flusser, 2002, págs. 23-28). Afirmo entonces que la -industriosidad- del diseño ha sido secuestrada por el proyecto capitalista, por tanto su complejidad debe verse de manera alterna, como se propone aquí, acercándose a *Allwiya Kamay*. Complementariamente a las ideas anteriores se incorpora la idea de sentipensar (Rosales A., 1998; Escobar, 2014; Moraes & de la Torre, 2002) y he propuesto Sentipensar-haciendo (Álvarez R., 2016, pág. 107).

En adelante complementaremos sentipensar-diseñar-haciendo, (quizá, sentipensar industriosos) lo que resulta en ser una transformación estructural, esto a razón a que cuando sentipienso para diseñar y con ello, cuando llevo a mi realidad lo diseñado, estoy/estamos construyendo/transformando un mundo

⁴ En relación andina con el buen vivir (*Allin Kausay*, *Sumak-kausay* quechua; *Suma-Qamaña* aimara) (Medina 2006, Estermann 1998, Gutiérrez A. 2008).

⁵ «La palabra industria viene del latín industria, vocablo formado por el prefijo *indu-* (en el interior) y la raíz del verbo *struo* (construir, apilar, organizar, fabricar), con el sufijo de cualidad *-ia*. Actualmente designa todas las materias naturales, con vistas a la obtención de bienes de consumo. Pero en latín significó primero “aplicación y laboriosidad” y al mismo tiempo “ingenio y sutileza”. Tomado de: <http://etimologias.dechile.net/?industria>. Recuperado el: 27-03-2021. También consultado en: <https://www.etymonline.com/word/industry>

(dentro del mundo). Bajo estas perspectivas, una idea alterna del diseño otro, -Diseño del Sur- puede jugar un papel protagónico para nuestro futuro común en un fieltro convivial de buen vivir (Álvarez R. y Gutiérrez B. 2017, A. Gutiérrez 2015) ruwanasófico (ético), no hegemónico y respetuoso de todos los Seres (Estermann, 1998).

Bajo estas perspectivas, una idea alterna del diseño otro, -Diseño del Sur- puede jugar un papel protagónico para nuestro futuro común en un fieltro convivial de buen vivir (Álvarez R. y Gutiérrez B. 2017, A. Gutiérrez 2015) la cual es ética, no hegemónica y respetuosa de todos los Seres.

En pleno sentido, el diseño (sentipensar industrial como práctica redirectiva) trasciende una actividad vital y se superpone a una singularidad superflua del andamiaje del mercado-consumo. Por claridad, el diseño así entendido no se origina en el siglo XIX, con la revolución industrial, sino deviene de los vestigios de las industrias líticas (complejos técnicos) que datan de 3'300.000 años atrás (Harmand, y otros 2015). Conceptualizar, sentir y practicar un diseño otro (A. Gutiérrez 2014) y onto-genéticamente industrial (Álvarez R. 2015) desde la filosofía andina, interpela el fundamentalismo de la libre competencia en tanto asistimos a un desastre humanitario y ambiental. A continuación se presentan los diferentes constructos enunciados mediante un mapa relacional.

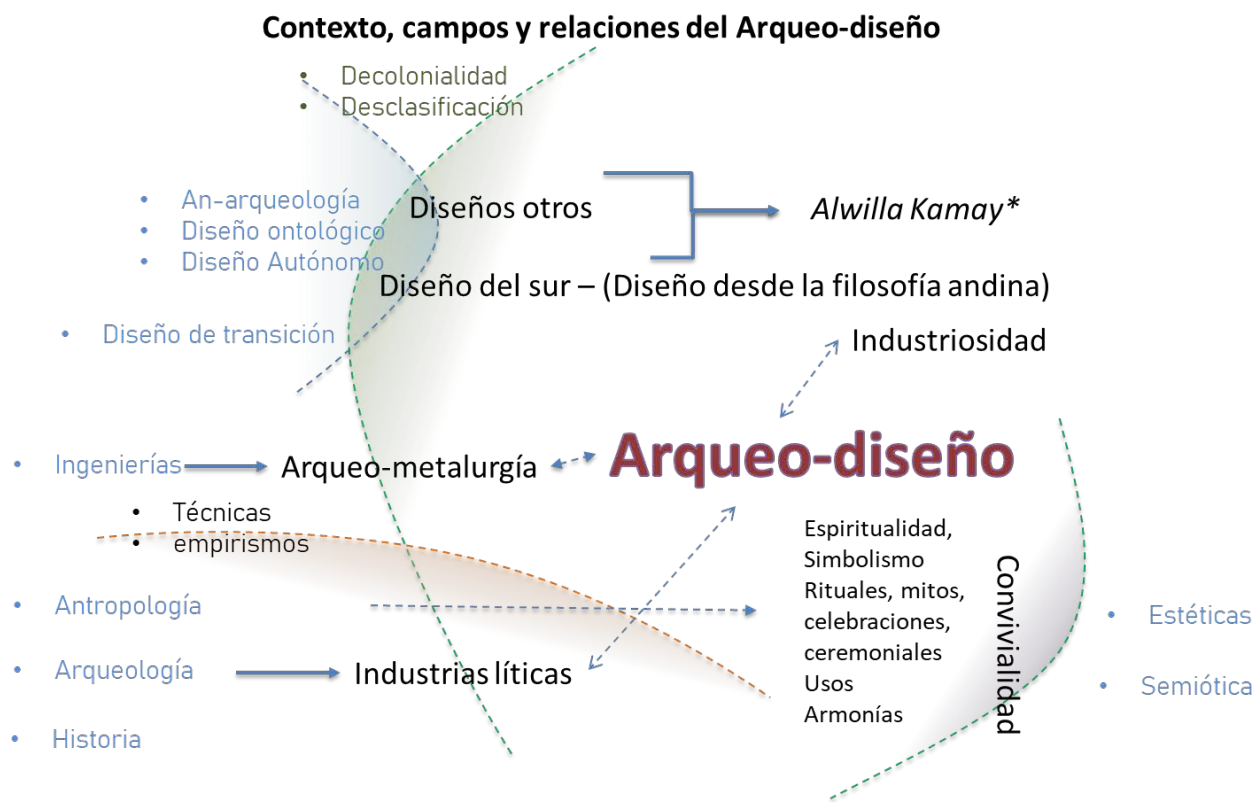


Figura 1. *Otras posibles nominaciones homeomorfas exploradas: **Aimara:** Uñstayaña, inuqaña, Chhijnuqaña, Kamaña, luraña, Uñäsiyaña, uñstayaña, Musaña. **Lupiña, inkillu.** **Muisca:** gusqua, **Kuna:** Obinyed. **Quechua:** rurana, kamana, wallpana, yachachina, kmariy. En azul la disciplinas, en negro los constructos propuestos. Finalmente, las líneas punteadas porosas e indefinidas, intentan una articulación⁶ intercultural y polilógica del Arqueodiseño. (Elaboración propia).

⁶ Esta articulación intenta seguir aspectos del diálogo de saberes, favorecimiento de la transdisciplinariedad y transculturalidad como lo sugiere Castro-Gómez para descolonizar la universidad (Castro-Gómez & Grosfoguel, 2007, págs. 79-91).

2. Arqueodiseño

El mapa anterior cuyo énfasis es el arqueodiseño, se dibuja como un pequeño campo entre los territorios de lo alterno, pero que a su vez conversa con lo hegemónico, tal como lo plantean los Amautas⁷. Este concepto surge originalmente en el seno de las teorías arqueológicas de América del Sur (TAAS del 2018), en el intercambio de saberes con los arqueólogos asistentes al evento en la ciudad de Ibarra en Ecuador, país que considero cuna de mi idea de diseño desde la filosofía andina, diseño desde la interculturalidad y uno de los centros del pensamiento andino sumado a la idea de diseño del Sur, trabajo compartido con el profesor Alfredo Gutiérrez en la Tadeo (Álvarez R. & Gutiérrez B., 2017).

El surgir del concepto también tiene como antecedentes varios hilos: el seminario doctoral con el profesor Andrés Burbano (Tópicos Avanzados en Diseño, 06-09-2014, doctorado en Diseño y Creación, Universidad de Caldas - Manizales) sobre an-arqueología (Zielinski, 2011, pág. 48) y la relación emergente del trabajo arqueológico-decolonial de Shepherd, Gnecco, & Haber (2015), junto con la idea del diseño del Sur y mi enfoque andino-intercultural de la tecnología y el diseño (Álvarez R. F. A., 2012; 2013) y de abordar las diversas prácticas de reconstrucción del trabajo ancestral en las manufacturas (Nueva era 2020, Pradilla R. 2014) .

El llamado que nos hacen Illich y Escobar es por el equilibrio entre la estructura de las herramientas, las herramientas mismas y la convivialidad, en una idea de buen vivir para la realización de lo comunal. Es oportuno aquí reiterar que la industriosisidad que se preocupa por este equilibrio, armónico y respetuoso de la diversidad, es por el que se aboga en la praxis de un Diseño del Sur. (Álvarez R. F. A., 2016, págs. 103-109; Álvarez R. & Gutiérrez B., 2017).

Los ancestros que habitaron hace más de 3200 años (Noticiascaracol.com, 2014), ya dominaban técnicas contemporáneas de metalurgia conforme estudios recientes de ingenieros investigadores de la universidad de los Andes (Escobar G., 2015). Lo mismo dicen los propios hallazgos de investigadores del Museo del Oro, quienes identificaron aleaciones, procedimientos y niveles de maestría en el trabajo de los metales (Museo del Oro, 2013). Este dominio técnico (*allwiya*) hace pensar que los antepasados dominaron la temperatura por encima de los 1064 °C para lograr el punto de fusión del oro, por lo que se requirieron tanto de hornos y procedimientos especiales como de herramientas resistentes a estas temperaturas; así mismo, el control de la presencia y ausencia de oxígeno para distintos procesos metalúrgicos como soldaduras, aleaciones, tiempos, fusiones y pulidos, entre muchas otras variables para el trabajo con los metales. Es decir, advirtiendo lo que se refiere a equivalentes homeomórficos (Estermann, 1998; Panikkar, 1967), dichos saberes obedecen a lo que hoy día es la profesión de ingeniería metalúrgica. (Escobar G., 2015, pág. 9).

Pero entonces ¿para qué arqueodiseño? Porque la tecnología, la ciencia y la economía de la mano de lo político principalmente, ameritan ser interpelados y más aún, rearticulados bajo otras perspectivas (en este particular coincido con la idea de prácticas redirectivas y futurización de Fry, como también del mundo andino que en su caminar, mira el futuro-pasado (Rivera Cusicanqui, 2015)). Los ideales occidentales del proyecto moderno, han sido devastadores de la vida y lo social. Aprender del pasado visto con otras lentes y así pensar el futuro-pasado de modos alternos más fraternos con la vida es un imperativo ante esta crisis civilizatoria y ambiental.

¿No sigue siendo una postura antropocéntrica? Pensar en la sobrevivencia de los humanos en la tierra es egoísta, claramente más, si es acosta de los demás seres. Una opción entonces, es “dejar así el curso

⁷ “para triunfar, perder o empatar, hay que entrar en cancha”. Cancio Mamami dice “hay que subir al carro de reproducción del sistema occidental. Con protestas desde fuera, condenas, no lograremos nada; hay que emplear nuestra sabiduría» (Medina, 2006, págs. 51-52).

de los acontecimientos”, continuar como vamos en clara entropía cuyo fin ya sabemos por múltiples estudios y experimentos científicos. De este modo el hombre se extingue del planeta pero así mismo lleva consigo la muerte de millones de otros seres no humanos. Bajo esta opción, si se extingue la especie humana, como otra especie más en la tierra sin impactar con sus devastaciones a las otras especies, tal como ha ocurrido con miles de otras en el pasado y actualmente, pero sabemos que no es así, con el humano que arrasa todo en su afanoso *Dasein, way of life*, bienestar y ahora un tal *wellbeing* organizacional).

Como alternativa, existe afortunadamente la cosmovisión de los pueblos no occidentales (Abya Yala) que han vivido en armonía con los otros seres, con una perspectiva convivencial, compasiva y de alteridad. Reconocemos que al ser una especie más dentro de un mismo ser (pacha) hay una existencia que es convivencial con/entre los otros seres⁸; por lo tanto, no es antropocéntrica y además entre los mismos de su especie no es egoísta sino convivial; si se quiere un individuo, son dos, aquí es *chachawarmi* y el individuo convivial es el *ayllu*; diferente al individuo -monada- occidental (Estermann, 1998, p. 226; Escobar, 2019; Rivera Cusicanqui, 2015; Medina, 2006).

3. Allwiya Kamay

Este sería asimismo, un equivalente homeomórfico a la tecnología occidental, que es pero que no es, o diría quizá una tecnología otra; ofrece una enunciación desafiante para dar soporte a la convivialidad. insistimos en postular el término del quechua -*Allwiya Kamay*-, que como se anota: “Este término originario se compone de -*Allwiya*: técnica (...) *Allwi*y, verbo que significa tejer o urdir, resulta una asociación técnica que ordena los hilos para tejer, metáfora para el entramado del presente texto (Tunque C., 2009, pág. 18); y -*Kamay*: gobierno, gobernar, cuidar.”, el cuidar de la técnica (Álvarez R. F. A., 2016, pág. 102), que deviene de uno de los cuatro fundamentos⁹ de la filosofía andina, KAMAY, representados en la cruz del sur (los 4 principios de la *chakana*: *Munay*, *Yachay* *Llank’ay*, *Kamay*. (amar, saber, trabajar y crear. (Tunque C., 2009, pág. 106; Guerrero A., 2018)). Como verbo, la raíz *kamay* es creación¹⁰ u ordenamiento, invención; empero una actividad propia de diseñar, lo que se adecua con la tecnología, algo así como “creación u ordenamiento con técnica”, (si se me permite aquí una vulgar traducción).

La seducción del significado *Allwiya Kamay* y el que, puede llegar a ser su equivalente homeomórfico como se mencionó, la tecnología convivial o ancestral, no puede desconocer que implica al diseño, con

⁸ Valga aquí una digresión frente a la perspectiva del -cuidado-, cuando pone al uno en función de fragilidad, de necesidad, frente al otro caritativo; mejor entonces una complementariedad relacional convivial. Ejemplo: “la naturaleza frágil que necesita del humano cuidador.” ¿Acaso la Madre tierra no se auto cuidaba antes de los humanos?

⁹ 4 poderes, fundamentos, pilares o *Saywas*. Coinciden Patricio Guerrero con Daniel Tunque en 2 pilares *Munay* y *yachay* (Guerrero A., 2018, págs. 20-21; Tunque C., 2009). Cabe aclarar que el primero, Guerrero es autor ecuatoriano cuyo quechua- es ecuatoriano (*Kischwa*), mientras que Tunque es peruano con un quechua o runasimi inca (*Qichwa*) (Ministerio de Educación Ecuador, 2009, pág. 7). Para Guerrero la fuerza del *Ushuay* que define la espiritualidad es uno de los poderes y el *Ruray* otro de los *saywas* que alude al hacer. En Tunque corresponde *llank’ay* al trabajo muy cercano al principio que expone Guerrero. Con Paramo diéremos que son aproximaciones de los autores a la cultura panandina de Abya Yala, las cuales gozan de igual validez y riqueza. (Páramo, 1989).

¹⁰ De allí *Kamaq* el ordenador, inventor, creador (Tunque C., 2009) y *Kamay*, ordenar, inventar, formar, crear (sin embargo, esta interpretación -crear- en interpretación de Estermann no es un equivalente homeomórfico (Estermann, Filosofía Andina, 1998, pág. 268). La palabra *PachaKamaq* (el Dios ordenador, hacedor, re-creador de la tierra y del universo) y *Kamayuy* el especialista o vigilante. *Allwiya Kamay*: “tecnología”. Disponible en: https://qu.wikipedia.org/wiki/Allwiya_kamay. recuperado el: 20-06-2018.

otro nombre, y que, debe hacerse un énfasis acá, a su vez tiene en correspondencia la realización, lo que completa la idea sobre la industriosisidad humana (reinterpretamos aquí la idea de Escobar (2019), así: *Allwiya Kamay* en la realización de lo comunal).

En este sentido, las herramientas como tejido (*allwiy*) representan los valores, símbolos e ideales de buen vivir de la comunidad e incluso son tratados como seres por algunas culturas vernáculas (Deloria jr., 2001). Sin embargo, en la práctica debe advertirse que una misma herramienta bajo significados cambiantes (Lotero B., 1997), otorgados por grupos culturales diferentes, adquiere otras connotaciones¹¹, (semiosis) en el entramado del territorio, los intereses y motivaciones y, por lo tanto, en la vida.

Por último, estos serían 3 premisas de este idea equivalente homeomórfico de los pueblos andinos:

1. *Allwiya Kamay*, la tecnología ancestral para el diseño y la realización de lo comunal, es un “posibilitante” articulador del entramado de las comunidades. Identificar dicha aproximación sobre cómo las comunidades hacen su mundo mediados por esos saberes y prácticas, reconocerlas y estudiarlas, es el propósito, en parte, del Diseño del Sur bajo el concepto en ciernes de Arqueodiseño.
2. El conjunto de las herramientas para la convivialidad comprende desde las cosas materiales e inmateriales, incluso todos los dispositivos tecnológicos y discursos, todo artefacto de la mente y sentires humanos, como se dijo, son productos de la capacidad industriosa del hombre.
3. *Allwiya Kamay* tanto como las tecnologías occidentales son intrínsecos a las comunidades y otros modos de organización social.

1.1. *El Homo artifex, subsistens de Ivan Illich*

Algunos arqueólogos parecen tener claro que las industrias corresponden a las actividades humanas deliberadas con lo artificial para adecuar o adecuarse al ambiente, esto alude al campo de *Allwiya Kamay* y es lo que caracteriza al género *Australopithecus*, aunque en controversia de dicha clasificación con el *homo-habilis*. (Esta discusión mucho más allá, que el malentendido de una industria perversa de producción en masa descontrolada). Para dicha adecuación, el hombre concibe previamente tanto sus acciones como los artefactos mediante la prefiguración¹² (esto lo acerca en parte al campo de la tecnología y el diseño como actividades cognitivas, y puede asociarse con el *homo-sapiens*). En una conducta del uso deliberado de las herramientas que ha prefigurado, el hombre fabrica diversos artefactos (lo que caracteriza al *homo-faber*¹³) y de nuevo, esto es muy afín al estudio de *Allwiya Kamay*,

¹¹ Al respecto, por ejemplo, la controversia sobre la aparente neutralidad de los productos tecnológicos (Habermas, 2005).

¹² Sobre esto Tony Fry anota la que la prefiguración es una intuición y cita a Heidegger quien recoge el término de frónesis, la idea de eterna prefiguración del conocimiento de Gadamer y del pensamiento aproximativo de Levinas (Fry, 2012, págs. 40-42). Por su parte Rómulo Gallego recoge la definición de diseño de la escuela de Carlo Federicchi del a Universidad Nacional cuyo rasgo prominente es la prefiguración de lo real (Gallego B., 1995).

¹³ La intención con estos términos además de acercarse al campo de la arqueología es emplearlos en el sentido que expone Ivan Illich en su colocación espacial sobre lo que él llamó las tres dimensiones de la elección social (*tree dimensions of social choice*). «*the social ideal corresponds to homo habilis, an image which includes numerous individuals who are differently competent at coping with reality, the opposite of homo economicus, who is dependent on standardized "needs". Here, people who choose their independence and their own horizon derive more satisfaction from doing and making things for immediate use than from the products of slaves or machines*». (Illich I., 2017, pág. 5).

especialmente a las técnicas y el diseño industrial, en tanto capacidades para fabricar herramientas que permitan fabricar herramientas (Álvarez R. F. A., 2015).

En una provocación alterna, se promueve un diseño industrial como aquella actividad experta que, por una parte, se ocupa de concebir, idear o prefigurar para un contexto, pero tejiendo de modo posibilitante para la realización de lo comunal. Dicho de otro modo, invocando al *Homo artifex, subsistens* de Illich más que al *Homo Economicus* de las empresas económicas¹⁴. Esto engloba una actividad diseñística/industrial de valorar y sentipensar haciendo futuros conviviales (Álvarez R. F. A., 2016). Se reitera entonces que el diseño industrial se encarga de transmutar lo prefigurado en realidad factible, la transmutación de los abstractos en concreciones, interpretando a Bachelar (1993).

Sin embargo, como se ha dejado claro, este diseño al que se alude también se teje con el concepto de proximidad, pensamiento aproximativo, que estudia Tony Fry interpretando a Levinas, ya que intenta acercarse a una realidad mediante hechos concretos, pero desde otras aproximaciones que no solo son racionales, sino más de conceptualización sensible (Fry, 2012, pág. 41) y agregaremos, comunales. En este sentido, apelamos aquí reiterando, a lo industrial, a cambio de industria y quizá de la misma tecnología, que anteriormente se entendía como el propio diseño en la lengua latina y castellana, y mucho antes de la aparición del propio término -diseño- (*disegno*, *designio*).

1.2. Herramientas conviviales

Para ser enfático, el diseño y la tecnología han sido sobre dimensionados. Tecnología o técnica dentro del mundo único occidental se ha venido a configurar en un depredador de la naturaleza y funge como el caporal de la esclavitud de los últimos siglos. No obstante, para otras culturas andinas cercanas: muisca, quechua y aimara, entre otras, las praxis y los significados son totalmente distintos, los cuales se han venido explorando a lo largo de mis aprendizajes en Ecuador, Bolivia, Argentina, Perú y Colombia que algo comenté y del bosquejo de tesis de doctorado en Diseño y Creación en U. Caldas titulada Rearticulaciones (Álvarez R. F. A., 2015), que se sigue escribiendo/practicando.

Para lograr comprender en algún grado el contexto localizado de dichas praxis y saberes ancestrales se apela aquí con más detalle al concepto de los -equivalentes homeomórficos- planteado por Panikkar (1967) y seguido por Estermann (1998), debido a que es importante matizar los saberes ancestrales dentro de su contexto y entre estos, *Allwiya Kamay*, que podría decirse, con reserva ideológica, lingüística, y semántica en español, como unas tecnologías conviviales o ancestrales, herramientas conviviales, que serán entendidas como alternas a aquellas hegemónicas y colonizadoras, tecnologías duras principalmente Euro-norteamericanas (Mitcham K., 1989) y que invalidan otras relaciones transformativas del hombre con su entorno.

1.2.1. Aproximación a la recuperación de tecnologías ancestrales

Ya se ha intentado describir cómo se teje y fieltra *Allwiya Kamay* con la idea de Diseño del Sur y como su realización posibilitante para lo comunal pasa por la idea del arqueo-diseño, referencia rearticuladora que deshace, deshila o lo que Fry ha denominado como defuturación y luego mediante la prefiguración se retejen o rearticulan saberes, prácticas y vivencias; y que con la industrialidad se transmutan en hechos concretos, artefactos y vivencias de esos ideales conviviales.

¹⁴ En su texto *Shadow Works*, Illich introduce el *homo artifex, subsistens* para referirse a su idea de recuperar la tradición de los ambientes comunales de utilización orientada por la subsistencia, en oposición al *homo economicus* orientado a la producción-consumo de las sociedades que apuestan al crecimiento económico. (Illich I. D., 1981, pág. 12).

Hemos denominado entonces este trabajo de acción de diseño de -recuperación de tecnología ancestral-. Esta idea encuentra eco en múltiples latitudes, sobre todo las alejadas del “progreso y el Bienestar occidental”; ejemplos recientemente documentados del 2019, aunque no por ello generados en el pasado, son descritos en la revista electrónica del *Massachusetts Institute of Technology* (MIT)¹⁵, reputada institución generadora de tecnologías de punta, que reconoce estas importantes realizaciones de la capacidad de diseño, muchas veces popular y comunitaria, más que de las de prestigiosos diseñadores: (“*Oral rehydration salts; Cheap, low-power irrigation; DC-power microgrid; Better woodstoves; Simple, effective water filters; Hippo roller; Jet injections; Paper microscopes; Disaster communications system; Portable malaria screener*”).

Por otra parte, la recuperación de tecnologías ancestrales comparte el trabajo intercultural que plantea el *Amawtay wasi* ecuatoriano, que conocimos en sus orígenes en 2004. Tal como lo describe Catherine Walsh, a través de la relacionalidad intercultural, el *Amawtay Wasi* se “propone recuperar y revalorizar los conocimientos ancestrales sin dejar de lado los conocimientos de otras culturas”.¹⁶ (Walsh, García, & Mignolo, 2006, pág. 31).

Veamos ahora un caso que he tenido oportunidad de vivenciar en Ecuador y Colombia. Obviamente aquí el número de ejemplos es muy importante y deben proliferar por doquier y promoverse mucha conversación, praxis y documentación al respecto, sobre todo entre las nuevas generaciones de personas diseñadoras industriales. En el siguiente apartado se presentan descripciones de una práctica redirectiva propia, sin embargo, reitero existen otros casos para revisar, pero se dejan de lado por este limitado espacio de escritura.

1.3. Prácticas redirectivas: la vuelta al torno por tracción humana en tiempos de la “ontonomía técnica”.

Sobre la recuperación de tecnología ancestral se ha trabajado la vuelta al torno de volante por tracción humana en estos tiempos de producción automatizada y masiva. La idea central es recuperar la creación de piezas cerámicas, en este caso, la obtención de las piezas modeladas por fuerza y mano humana (el hombre vuelve a ser la fuente de energía y recupera el control sobre su cuerpo, la materia y la máquina en una sincronía productiva-creativa); donde las herramientas se incorporan al proceso en la justa medida que proponía Illich (1980, p. 342).

En complemento a la idea de Ivan Illich que sirve para ilustrar la diferencia que se ha planteado de la tecnología sobre *Allwiya Kamay*, resultan pertinentes las ideas de E. F. Schumacher, Raymond Panikkar y Arturo Escobar. Hemos denominado entonces este trabajo de acción de diseño de recuperación de tecnología ancestral, como la vuelta al torno de volante por tracción humana en los tiempos de la producción automatizada inteligente e interconectada (algunos rasgos de la 4ta revolución industrial).

¹⁵ «Technologies don't have to be cutting edge to make a profound difference in people's lives» Los editores de la revista (27 de febrero de 2019). Disponible en: https://www.technologyreview.com/s/612952/ten-recent-low-tech-inventions-that-have-changed-the-world/?utm_campaign=site_visitor.unpaid.engagement&utm_source=linkedin&utm_medium=tr_social, recuperado el 07-08-2019.

¹⁶ Dentro de la propuesta de *Amawtay Wasi* bajo los principios andinos, se describe uno de los 5 centros del saber que compartimos con la recuperación de tecnologías ancestrales: “El Centro *Ruray Ushay* plantea el desafío de la recuperación y desarrollo de los ingenios humanos orientados a la vida, articulando un conjunto de tecnociencias (gerencia y administración, energías alternativas, cibernética, tecnologías de comunicación, informática, biotecnología y tecnologías ambientalmente sustentables) con conciencia.” (Walsh, García, & Mignolo, 2006, págs. 32-33)

Creación que pretende llamar la atención sobre las piezas modeladas por la coordinación de movimientos corporales para generar energía, controlar la materialidad y las formas así como de la herramientas, por lo que implica total atención sobre el trabajo; *Allwiya Kamay* en la justa medida, como proponía Illich (1980, 342).



Figura 2. La foto de la izquierda es del torno elaborado en la PUCE (2006) (foto cortesía de Freddy Alvear) y la de la derecha retoma el trabajo, ahora en un torno fabricado en la U. Tadeo (2021) (foto propia). Este tipo de tornos remonta a un pasado medieval, donde la fuente de energía era el mismo hombre a su propio ritmo para producir. Aquí hay conciencia plena de la corporalidad y en simultaneo de la materialidad y de la herramienta, lo que Panikkar definió como -sintritmia-.

Así, este ejercicio sobre la idea de lo pequeño de Schumacher (1993, págs. 63-75); la **-sintritmia-** y latido del ejecutor **-heterónimo-** industrial, siguiendo a Panikkar (1967, págs. 12-13), se constituye en un -activismo *Allwiya Kamay* de una recuperación, medieval (ya iremos más a atrás), empero- de resistencia sobre el diseño y tecnología noratlánticos de producción automatizada, homogenizante y descorporalizado, que se está abrazando en el medio académico (“la 4ta revolución industrial ha llegado” ¿cuáles son sus repercusiones civilizatorias?. Este torno-activista, suscita esos debates de cara a quienes estudian diseño).

Este ejercicio de recuperación, intenta instaurarse como una “innovación pedagógica” para ser enseñado en el seno mismo del diseño académico, vanidoso y con D mayúscula, como lo denominó Frayling y Rittel (Frayling, 1993). Denunciamos entonces la persistencia de la academia (latinoamericana) de asumir modelos del diseño foráneos, que toman la forma de un diseño falsamente desmaterializado y discursivo, experiencial (Moles & Jacobus, 1988); y cada uno de estos términos, cooptado por ideas de economía neoliberal para sociedades hiper-consumistas en las que, se ha insistido, intento desmarcarme.

4. A modo de provocación y no de concluir

El artículo académico ortodoxo exigiría unas conclusiones, no obstante permítanme en su lugar recoger y plantear algunas preguntas detonantes desde la industrioidad y *Allwiya Kamay*, que puedan

contribuir en la práctica del arqueodiseño futurando y que de ella emanen los consecuentes análisis teóricos:

Cuando estamos haciendo recuperación de tecnologías ancestrales para traerlas al presente, con el cuidado que plantean Panikkar y Esterman, es decir, haciendo la adecuada equivalencia homeomórfica y por sobre todo con el cuidado de no violentar, colonizar ni mucho menos aprovecharse de los saberes milenarios, sino en armonía, en polílogo intercultural y enalteciendo la Madre Tierra y respetando todos sus seres, preguntémonos entre otras cosas, en un polílogo intercultural de saberes:

- ¿Cómo y cuáles fueron esos acontecimientos de industrioidad que dieron lugar a los artefactos, en su más amplio sentido, por la comunidad que se intentan recuperar mediante el arqueodiseño?
- ¿Acaso fueron delegados a un experto, maestro, amauta o quizá fueron co-creados?, ¿siguieron procesos colaborativos o participativos, fueron populares?, es decir ¿Existían roles designados en esas sociedades para la industrioidad?
- ¿Los resultados llevaron procesos autónomos, de imitación, intercambio, o influencia de otros grupos?
- ¿Qué principios operacionales (saberes y conocimientos técnicos subyacentes) se manifiestan en esos artefactos?, por lo tanto ¿Cuáles prácticas pueden desentrañarse con el uso planteado por los artefactos?
- ¿Cuáles fueron los valores simbólicos, de uso, estéticos, éticos, funcionales, rituales, que dieron lugar al artefacto?, es decir, ¿cuál es el complejo eco-antropológico? Con ello, ¿Qué tensiones sociales generó ese artefacto o herramienta convivial en la comunidad (clasismo, conductas bélicas, machistas, discriminatoria, etc.)?, ¿Qué políticas se pueden deducir del artefacto al interior de la comunidad? Y entonces, ahora sí ¿Qué conocimientos de *Alwillia Kamay* hicieron parte en la consolidación de los artefactos?
- Las anteriores preguntas pretenden dar cuenta del entramado sobre su cosmovisión y relacionamiento con la madre naturaleza y los otros seres donde los artefactos, sean estos políticas, discursos herramientas y demás, puedan recuperarse con sostenimiento para revertir y futurar la actual crisis civilizatoria conversando con otros futuros-pasados.

Al hacer este tipo de preguntas, vemos como la an-arqueología por ejemplo, resulta insuficiente en el contexto Abya Yala, que nos interpela a nivel de *Allwiya Kamay* y de la industrioidad. De igual manera la tecnología actual separada de la espiritualidad, lo mismo que una política separada de la ética y de la prioridad de la madre tierra, entre otros muchos discursos occidentales resultan ser insuficientes hoy ante la complejidad perdida del pasado.

Por último, se quiere hacer un llamado en este documento a la resistencia para la preservación de la vida y la vuelta a la armonía con la madre tierra. En este sentido, es que me he referido al **-activismo *Allwiya Kamay***- a reaccionar ante el desenfrenado desarrollismo tecnológico fruto de la automatización que ha desproporcionado lo señalado por Schumacher, cuando habla de una vuelta al “tamaño del hombre”.

“I have no doubt that it is possible to give a new direction to technological development, a direction that shall lead it back to the real needs of man, and that also means: to the actual size of man. Man is small, and, therefore, small is beautiful. To go for gigantism is to go for self-destruction. And what is the cost of a reorientation? We might remind ourselves that to calculate the cost of survival is perverse. No doubt, a price has to be paid for anything worth while: to redirect technology so that it serves man instead of destroying him requires primarily an effort of the imagination and an abandonment of fear.” (Schumacher 1993, 159).

También, Hegel citado por Habermas (2005), previó que la pretendida emancipación del hombre a través de la tecnología más automatizada posible, ocasionaría que dicha liberación del oficio, por el contrario “más envilecería al hombre” (Habermas 2005, 32). Y de igual modo, Panikkar señaló cómo la técnica con su propio ritmo somete al hombre a ese ritmo, deshumanizándolo. A lo referido por Hegel, Schumacher y Panikkar, éste último lo titula como la -ontonomía de la técnica- (1967, 28-34). Este activismo *Allwiya Kamay* cuestiona seriamente, ese sentido de la tecno-científica occidental.

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Laboratorio Ancestral: Diseño participativo y sabidurías Kichwas en la Amazonia de Ecuador.

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El artículo presentado a la Conferencia PIVOT 2021 es una reflexión en base al tema Tiempo linear Vs. Tiempo circular, enfocada en responder a la pregunta ¿Cómo cambiaría el pensamiento del futuro, si adoptáramos la noción de ancestralidad? Para responder a esta pregunta la primer parte del artículo aborda la revitalización de sabidurías ancestrales en nacionalidades indígenas de Ecuador, considerando como problemática la uniformidad de los programas educativos que a llevado a los pueblos indígenas a la asimilación de la cultura occidental. Desde está perspectiva, se propone una alternativa a la revitalización de estos saberes desde un pensamiento (de) colonial, guiado por la filosofía Andina a través del trabajo del antropólogo ecuatoriano Patricio Guerrero Arias, quien propone la noción del “Corazonar”. La segunda parte de este estudio se complementa con la descripción de la experiencia de campo con jóvenes del Pueblo Kichwa de Rukullakta, en la Amazonia ecuatoriana. Este proceso creativo se enfocó en la revitalización de sabidurías ancestrales, a través de un proceso participativo que consideró conceptos, modelos y prácticas de diseño participativo, co-diseño, educación popular, investigación acción y diseño de juegos. Finalmente se presentan las herramientas co-diseñadas por los grupos de participantes para mantener, usar y difundir los sabidurías locales para las futuras generaciones.

Diseño social y participativo; sabidurías ancestrales; co-diseño; educación intercultural

1. Introduction

En este artículo se describe la experiencia de diseño social y participativo desarrollada con jóvenes del Pueblo Kichwa de Rukullakta, provincia de Napo en la Amazonia ecuatoriana. El *Laboratorio Ancestral*, como fue llamado por la comunidad, se enfocó en desarrollar un proceso participativo para revitalizar las sabidurías locales. Los laboratorios de diseño participativo promovieron el diálogo intergeneracional

para fortalecer los sistemas tradicionales y locales de conocimiento a través del uso y revitalización de la lengua Runa Shimi y del diseño de juegos para el aprendizaje. Este proceso interpretó modelos prácticos y conceptuales de diseño participativo y co-diseño para la creación de una guía de actividades, e implementó conceptos de educación popular (Freire, 1969), investigación acción y educación intercultural (Gasche, 2016). El resultado de este proceso fue el co-diseño de dos proyectos finales que siguieron los temas de interés desarrollados por los participantes. A su vez este artículo, propone una reflexión desde un posicionamiento (de) colonial sobre la revitalización de las “sabidurías insurgentes” (Guerrero, 2010), en donde niñas, niños y jóvenes son los interpretes de su cultura, su identidad y su memoria. De esta manera se plantea una contribución a la conferencia PIVOT 2021 en base al tema Tiempo lineal Vs. Tiempo circular. Enfocada en responder a la pregunta ¿Cómo cambiaría el pensamiento del futuro, si adoptáramos la noción de ancestralidad? Desde esta perspectiva se plantea un vínculo hacia las filosofías andinas a través del trabajo del antropólogo ecuatoriano Patricio Guerrero Arias (2010), quien propone la noción del “*Corazonar*” como una forma de “recuperar la sensibilidad, de abrir espacios para la insurgencia de la ternura que permita poner el corazón como principio de lo humano, sin que eso signifique tener que renunciar a la razón (Guerrero, 2017)”.

2. Revitalización de sabidurías ancestrales desde un pensamiento (de) colonial

En nuestra experiencia de trabajo con jóvenes en pueblos y nacionalidades indígenas en México y Ecuador hemos podido observar como los saberes ancestrales se mantienen como una memoria colectiva activa dentro de las comunidades. En lugares como el pueblo Maya de X-Yatil se mantiene el grupo de dignatarios mayas¹, quienes se encargan de coordinar las ceremonias de la iglesia Maya, como: las festividades del pueblo en el mes de mayo, el pedido de lluvia para el inicio de la cosecha en el mes de junio o las ceremonias para el día de muertos en noviembre. Por otra parte en la Amazonia de Ecuador la Asociación de Parteras Kichwas del Alto Napo Amupakin, se encarga de transmitir y enseñar a niños y jóvenes el uso de plantas medicinales y mantener los conocimientos de partería ancestral. También en Ecuador el Gobierno del Pueblo Kichwa de Rukullakta, se preocupa por involucrar a las nuevas generaciones en revitalizar la historia de sus líderes para fomentar el reconocimiento de sus tierras, su idioma y su cultura. Tanto en México como Ecuador hemos visto como las expresiones culturales dialogan con su entorno, con la naturaleza y con los recursos que obtienen de ella.

Para Pascual Yépez Morocho, activista indígena del pueblo Puruhá y miembro de la Academia Nacional de Historia del Ecuador. Los saberes ancestrales son la expresión de una cosmovisión profunda que dinamiza el camino del ser humano de manera inclusiva, accesible y sostenible; Sobre lo que Yépez Morocho menciona: “los saberes ancestrales son un patrimonio cuyo valor no se suscribe únicamente a las comunidades originarias, sino que dichos saberes constituyen un importante recurso para toda la humanidad”. De acuerdo con la Convención para la Salvaguardia del Patrimonio Cultural Inmaterial de la Unesco (2003), estos saberes deben ser protegidos, promovidos, reconocidos y consolidados en beneficio de la generación presente y futura, porque dichos saberes brindan nuevas posibilidades de desarrollo armónico, no solo en el ámbito social, económico y político, sino también intelectual, afectivo, moral y espiritual (Yépez, 2019).

¹ De acuerdo con la Ley de derechos, cultural, organización indígena del estado de Quintana Roo, Dignatario Maya: Son los indígenas que tienen cargo y representación, en un centro ceremonial de acuerdo a sus usos, costumbres y tradiciones. Recuperado el 25 de enero 2017 de <http://www.iadb.org/research/legislacionindigena/leyn/docs/Mex-Mex-Quintana-Roo-Ley-Derechos-Cultura-Organizacion-Indigena-.doc>.

Sin embargo, a pesar de las estrategias que los pueblos y nacionalidades indígenas mantienen para transmitir los saberes ancestrales dentro y fuera de sus comunidades, existen factores que impulsan el cambio cultural y favorecen la adopción de una cultura hegemónica occidental. Para los autores Oviedo, Noejovich y Zamudio², estos factores se encuentran profundamente enraizados con la historia y las estructuras sociales que han persistido durante cientos de años. Entre las causas que ponen en riesgo la transmisión de estos saberes, los autores señalan: el cambio demográfico producido por la transformación del medio ambiente; El número todavía reducido de programas y políticas de desarrollo que tomen en cuenta el cambio climático y los efectos que tiene sobre las comunidades indígenas; La presencia de industrias extractivas en territorios indígenas que vulneran los derechos de la población y genera conflictos armados; El impacto de la pobreza que afecta la economía tradicional y disminuye la capacidad de los individuos de realizar actividades normales, alterando la estructura familiar debido a la migración; La escasa investigación sobre leyes laborales que puedan fortalecer los sistemas de conocimiento tradicional y las culturas; La uniformidad en los programas educativos que han sido uno de los principales vehículos para la asimilación e integración de los pueblos indígenas a la cultura occidental³ (Oviedo et al., 2007)⁴.

En relación a la uniformidad de los programas educativos, María Isabel González Terreros (2011) en su estudio sobre la relación entre los movimientos indígenas y educación en Ecuador. Menciona que la educación escolarizada, aplicada desde el siglo XIX, ha sido un dispositivo para la asimilación cultural. Este sistema educativo ha impuesto una cultura hegemónica y homogénea, contribuyendo a que el saber, la identidad, el idioma, y los modos de producción indígena sean marginados. Por otra parte, de acuerdo con González, los movimientos indígenas también han propuesto modelos de educación intercultural que plantean una escuela desde y para las comunidades, que reconozca las diversas nacionalidades, pero también sus específicos conocimientos, sus formas organizativas, su identidad y su propia y diferente cultura (González, 2011). Estos proyectos de educación intercultural proponen abrirse a procesos culturales participativos, desde donde todos los actores y actoras, principalmente niñas, niños y jóvenes, sean sembradores de procesos de revitalización e interpretes de su propia cultura, su identidad y su memoria. En este sentido los saberes ancestrales se están revitalizando desde su propia comprensión y desde la percepción del tiempo-espacio cíclico y espiral. Estos saberes parten desde la diversidad y no desde la hegemonía, desde el debate, discusión y dialogo mas no desde un orden dictatorial. Por lo tanto y retomando las palabras del activista Pascual Yépez, reconocer la pluralidad de saberes y conocimientos es aceptar su importancia como referencia para la actualidad (Yépez,2019).

Un ejemplo de esta postura en la revitalización de saberes ancestrales es el trabajo del antropólogo ecuatoriano Patricio Guerrero Arias, quien ofrece una Guía para la revitalización de las culturas, las

² *Desafío para el mantenimiento de los conocimientos tradicionales en América Latina* solicitada por la Conferencia de las partes (COP)² y el Convenio sobre la Diversidad Biológica (CDB)

La COP es la Conferencia de las Partes de la Convención Marco de las Naciones Unidas sobre el Cambio Climático(CMNUCC) y la CMP la Conferencia de las Partes en calidad de reunión de las Partes en el Protocolo de Kyoto (CMP).

El Convenio sobre la Diversidad Biológica (CDB) es un tratado internacional jurídicamente vinculante con tres objetivos principales: la conservación de la diversidad biológica, la utilización sostenible de sus componentes y la participación justa y equitativa en los beneficios que se deriven de la utilización de los recursos genéticos. Su objetivo general es promover medidas que conduzcan a un futuro sostenible.

³ "Aún hay muy pocos profesionales indígenas capacitados para hacerse cargo de la implementación de una educación multicultural bilingüe y, en muchos países, los programas no han recibido suficiente atención de los gobiernos". (Oviedo, Noejovich y Zamudio, 2007: 4)

⁴ Oviedo, Noejovich y Zamudio. (2007). Resumen Ejecutivo. En *Desafío Para el Mantenimiento de los Conocimientos Tradicionales en América Latina*(1-10). Argentina,Ecuador,Canada: COB, CDB.

identidades y las Memorias vivas de los pueblos y nacionalidades indígenas (2017). En esta guía, Guerrero Arias describe el trabajo de campo desarrollado con niñas y niños de la comunidad indígena Catzuki de Velasco, ubicada cerca de la ciudad de Quito, en la región de los Andes en Ecuador. La investigación participativa desarrollada basa su diseño en el concepto del *corazonar*, sobre lo que el autor menciona: se trata de recuperar la sensibilidad, de abrir espacios para la insurgencia de la ternura que permita poner el corazón como principio de lo humano, sin que eso signifique tener que renunciar a la razón (Guerrero, 2017). El *corazonar* recupera las cuatro dimensiones claves del vivir cósmico y humano: la dimensión afectiva, la dimensión sagrada y espiritual de la vida; la dimensión femenina de la existencia y la revitalización de nuestras sabiduría. Para Guerrero Arias estas dimensiones son fundamentales porque considera que “si se nos despoja de afectividad, de espiritualidad y sabiduría, todo en la vida puede ser fácilmente dominado, la naturaleza se vuelve recurso, cosa para obtener ganancias, los seres humanos fuerza de trabajo para acumular riqueza; pero si los miramos desde el corazón la naturaleza es nuestra madre, por eso la llamamos madre tierra, los árboles, los ríos, los animales, los seres humanos, son hermanos y hermanas y todos los seres que habitan el cosmos, están vivos y son necesarios para tejer la sagrada trama de la vida (Guerrero, 2017, p.154)”. De esta manera el autor propone una postura con la que podremos sentir los pensamientos y pensar los sentimientos, que nos ayudaran a caminar con equilibrio por la vida, a fin de recuperar la fuerza constructora y transformadora de nuestras sabidurías del corazón, pues solo así podremos hacer realidad el *Sumak Kawsay*, el Buen vivir, que esta implícito en estas dimensiones (Guerrero, 2017, p. 152-155).

El método desarrollado por Guerrero Arias en el trabajo de campo en Catzuqui de Velasco, se describe como una estrategia irradiante porque sigue los principios de la naturaleza y al mismo tiempo es un acto de alteridad en donde los participantes construyen su conocimiento aprendiendo junto a su comunidad. La investigación participativa propone tres categorías: *Espacialidad* es un diagnóstico para reconocer el espacio geográfico, que considera el patrimonio natural y la división política; *Temporalidad* es una indagación sobre los orígenes para comprender los procesos de transformación de su comunidad. Para Guerrero esta temporalidad desde las sabidurías indígenas tiene un sentido espiral que siempre se transforma. Es una temporalidad que da espacio a la belleza simbólica del mito, que nos permite entender de donde venimos, que busca mostrarnos como comprender el pasado para poder iluminar el presente (Guerrero, 2017, p.28). La tercera categoría es el *sentido* que busca los significados de la cultura presentes en imaginarios, representaciones, discursos y en la práctica sociocultural de la comunidad. De igual manera dentro esta metodología se plantea la necesidad de superar la noción de universo y se propone el principio de pluriverso y multiverso como una forma de aprender de los significados de la cultura, en la riqueza de la diversidad y la pluralidad de formas, manifestaciones y representaciones.

A través del proceso de investigación participativa con niñas y niños de la comunidad indígena de Catzuqui de Velasco en Ecuador, el autor demuestra la importancia de visibilizar la existencia de lo que la academia ha llamado epistemologías otras, “pero que desde la propia palabra de los pueblos indios y negros se reconoce como sabiduría (Guerrero, 2010)”. La “sabiduría insurgente” como la denomina va mas allá de la epistemología porque ofrece no sólo referentes teóricos, información y conocimiento para entender la realidad y la vida, sino sobretodo proporciona referentes de sentido para transformarla. Sobre lo que el autor menciona:

“las sabidurías insurgentes representan una alternativa para la construcción de un horizonte de existencia del otro diferente. Imaginar este horizonte de existencia otro implica la interpelación de lo que hacemos (Lander) en términos éticos y políticos. Pues nos lleva a cuestionar la forma cómo se produce el conocimiento y su estrecha relación con formas de

colonialidad del poder, del saber y del ser; de ahí la urgente necesidad de preguntarnos ¿Conocimiento para qué? ¿Conocimiento para quién? (Guerrero, 2010, p. 46)“.

De esta manera enfrentar la colonialidad del saber y del ser significa abrir espacios de descolonización de imaginarios y conocimientos. Considerando un (re) pensamiento crítico (de) colonial, capaz de descubrir las articulaciones del conocimiento dentro de una lógica colonial para evidenciar su carácter de apropiación desde otras realidades, territorialidades, lugares y horizontes históricos (Guerrero, 2010, p. 52). En este sentido Guerrero Arias propone un cambio de paradigma “para que seamos capaces de re-pensar y re-sentir lo pensado desde la afectividad, es decir *sentipensar* para empezar a *corazonar*. Para abrirnos a un conocimiento que no esté cargado de certezas, sino abierto a una pedagogía del error, a la incertidumbre; es necesario derrumbar la fortaleza de la ciencia, para construir formas distintas de saber, un conocimiento, una sabiduría que permita la reapropiación y reconstrucción del mundo y tenga la vida como horizonte. Todo esto muestra no solo la necesidad de epistemologías, sino sobre todo de sabidurías” (Guerrero, 2010p. 52).

Desde el enfoque de las “sabidurías insurgentes” el conocimiento es una respuesta a territorialidades concretas, a espacios locales desde donde se teje cotidianamente la vida. Se trata de comunidades conscientes de una gradual erosión cultural provocada por la globalización y que enfrentan este sistema afirmando su identidad desde sus propios recursos y potencialidades culturales (Guerrero, 2010, p.60). Siguiendo con la línea de pensamiento propuesta por Guerrero Arias se presenta el proceso de diseño participativo co-creado con jóvenes del Pueblo Kichwa de Rukullaka, provincia de Napo, de la región amazónica de Ecuador. En donde se desarrolló en conjunto con los participantes un proceso enfocado en la revitalización de las “sabidurías insurgentes”, a través de la investigación acción, diseño participativo y la apropiación de los conocimientos de su comunidad.

3. Método de los Laboratorios Ancestrales

La experiencia de campo que se describe a continuación se desarrollo entre los meses de diciembre 2017 y mayo 2018 en el Pueblo Kichwa de Rukullakta⁵ (PKR) ubicado en la provincia de Napo en la Amazonia ecuatoriana. El equipo de investigación formado por Brendon J. Gross y Lucía Garcés⁶, en conjunto con miembros y dirigentes del Gobierno del PKR invitaron a jóvenes de la comunidad a participar en una serie de talleres enfocados en revitalizar la memoria colectiva y el patrimonio local. El Laboratorio Ancestral, como fue llamado por la comunidad, se enfocó en compartir herramientas de

⁵ El Pueblo Kichwa de Rukullakta (PKR) está ubicado en el cantón Archidona, provincia de Napo, en la región amazónica ecuatoriana. Agrupa a 17 comunidades indígenas con un territorio global que cubre una extensión de 41.888,55 hectáreas, con una población de alrededor 5000 habitantes. Las principales actividades económicas son la agricultura de subsistencia a través de una chacra (huerto) diversificada para el autoconsumo; también existen cultivos para la venta en los mercados locales de naranjilla, cacao, yuca y plátano. Su población mantiene una estrecha relación con su entorno que se refleja en el respeto y el conocimiento profundo del manejo de sus ecosistemas. Es así que han logrado mantener a lo largo de los años una cosmovisión enraizada en saberes y prácticas ancestrales que se transmiten de generación en generación.

⁶ Brendon J. Gross. Educador en estudios medio ambientales. Su pasión por la enseñanza le ha llevado a trabajar en escuelas de diferentes países, aprendiendo su idioma y culturas. Cuenta con aproximadamente 10 años implementando programas de educación en Chicago, México, y Ecuador con jóvenes y adultos. Sus estudios en educación le han permitido desarrollar metodologías para involucrar a jóvenes y adultos en aprender sobre su cultura y entorno en inglés y español. www.jugandomuuch.com

Ana Lucía Garcés. Maestra en diseño industrial y diseñadora gráfica. Su experiencia relaciona el diseño gráfico, editorial y de servicios con el desarrollo de proyectos comunitarios. Ha aplicado estos conocimientos en programas educativos, sociales y culturales desde hace 10 años, trabajando con jóvenes, niños y adultos de Ecuador y México. Investiga herramientas de diseño participativo para crear proyectos y desarrollar materiales en conjunto con comunidades. www.jugandomuuch.com

diseño participativo, co-diseño y educación popular para activar saberes ancestrales. Estos saberes dentro de esta investigación son considerados como el “patrimonio indígena creado de forma individual y colectiva, que se transmite de generación en generación habitualmente por medio de la tradición oral. Estas son creaciones, prácticas y representaciones que se han mantenido y son desarrolladas por mujeres y hombres indígenas con una historia que se extiende a la interacción con la naturaleza (De la Cruz, 2004 citado por García 2006)”.

El primer acercamiento al Gobierno de PKR fue en el mes de diciembre de 2017; A través del análisis de una propuesta escrita se discutieron los objetivos, metodologías y procesos participativos que se llevarían a cabo en el Laboratorio Ancestral. Medardo Shiguango, dirigente de PKR aceptó la propuesta presentada por el equipo de investigación y mencionó que: “la mayoría de la población menor de 20 años de edad se encuentra entre dos mundos, el occidental y el indígena. Por lo que es necesario continuar con el desarrollo de procesos participativos para valorar su identidad cultural y crear vínculos que permitan incorporar herramientas del mundo occidental para fomentar el dialogo de saberes”. Los pueblos en donde se realizó la convocatoria fueron definidos por el Gobierno de PKR. El pueblo de Porotoyaku se enfocó en las poblaciones rurales y Rukullakta en las poblaciones cercanas a la ciudad de Archidona. Estos dos laboratorios se realizaron simultáneamente con una duración de 8 sesiones, organizadas una vez por semana de acuerdo a la disponibilidad de tiempo de los participantes. Los grupos estuvieron formados por jóvenes mujeres y hombres entre 14 a 19 años, en su mayoría estudiantes de secundaria y universitarias. Samuel Shiguango, líder del grupo de jóvenes de PKR, trabajó en conjunto con el equipo de investigación coordinando las inscripciones, el uso de la Casa Comunal de Porotoyaku, el estadio de Rukullakta y la preparación de alimentos para cada sesión.

El Laboratorio ancestral tomó como referencia la guía de actividades co-diseñada en la primera investigación de campo en el pueblo Maya de X Yatil (2015). Esta investigación planteó desde el diseño la necesidad de generar respuestas en conjunto con las comunidades indígenas para fomentar el mantenimiento, uso y revitalización de los saberes ancestrales (Garcés,2020). Retomando esta primera experiencia se estableció con el Pueblo Kichwa de Rukullakta (2018) los parámetros para fortalecer los sistemas tradicionales y locales de conocimiento en base a los siguientes objetivos: revitalizar los conocimientos tradicionales por medio del diálogo intergeneracional; desarrollar vínculos de confianza con jóvenes a partir de la toma de decisiones y la participación en un entorno creativo; fomentar las relaciones interculturales y valorar la diversidad; diseñar proyectos colaborativos que revitalicen las expresiones culturales tradicionales y fortalezcan las lenguas indígenas.

El Laboratorio Ancestral en el Pueblo Kichwa de Rukullakta (PKR) se centró en desarrollar actividades con grupos de jóvenes. En este espacio se involucraron mujeres y adultos mayores, quienes compartieron sus sabidurías a través de charlas y practicas con los participantes. La característica metodológica del laboratorio se definió de acuerdo a la combinación de métodos basados en diseño participativo, diseño gráfico, educación popular (Freire,1969) e investigación acción. La flexibilidad de la guía de actividades permitió considerar el nivel de participación, compromiso y evaluar los resultados parciales de cada sesión para integrarlos en el proceso. Las actividades realizadas durante estos talleres estuvieron guiadas por los temas generadores: *sabidurías sobre vestimentas y artesanías y sabidurías sobre juegos y danzas tradicionales*.

Las ocho sesiones del laboratorio se dividieron en dos etapas: La primera enfocada en las actividades rompehielo y la segunda en las actividades centrales que responden al desarrollo de un laboratorio en donde se integran habilidades de participación, investigación y diseño. En base al consenso se definió el horario para cada reunión y se discutieron los compromisos para generar un ambiente de trabajo. Por ejemplo se habló de la importancia de escuchar las opiniones de cada uno de los participantes para crear un ambiente de dialogo en donde el error fue parte del aprendizaje. A través de las actividades

rompehielo se buscó fomentar la creatividad por medio de dinámicas, dramatizaciones y juegos que involucraron el uso del cuerpo como una herramienta expresiva. En estas dinámicas se utilizaron como referencia actividades del teatro del oprimido (Boal, 2001), con lo que se construyó una relación horizontal abierta a la experimentación creativa. Estas dinámicas fueron más que un preámbulo, en cada sesión del laboratorio se utilizaron en diferentes momentos para explorar formas creativas para compartir avances de la investigación acción con el grupo de participantes.

La estructura de las actividades centrales se guiaron por las fases de co-diseño: co-descubrimiento, co-ideación y co-implementación (Manzini, 2015). En la conceptualización de estas etapas se integraron referencias como: el libro *When Everybody Designs* de Ezio Manzini (2015); Artículos de Maketools.com de Liz Sanders (2013) ; *Design participativo e Innovacao Social* de Chiara del Gaudio, (2014); *La Pedagogía del Oprimido* de Paulo Freire (1969); *Elementos de la fiesta popular en Ecuador para la educación* de Fernando Moncayo (2014); *Graphic Design Thinking: Beyond Brainstorming* de Ellen Lupton (2011); la página web *Community planning Project* editada por Nick Wates; el método inductivo intercultural propuesta por Jorge Gasche (2016) *Teatro del Oprimido* de Augusto Boal (2001).

3.1. Co-descubrimiento

La primera etapa de co-descubrimiento empezó con una reunión de socialización con los participantes, por medio de una invitación voluntaria para formar parte del proceso de diseño participativo. En esta charla introductoria se habló sobre las expresiones tradicionales de su pueblo a través del diseño de artesanías, vestimentas, danzas, así como de los ecosistemas relacionados con la caza, la pesca y la producción de alimentos en las chacras, entre otras. Las palabras de bienvenida se realizaron en lengua Runa Shimi con la participación de los dirigentes Cecilia Chimbo y Medardo Shiguango, quienes hablaron sobre la historia de reconocimiento de su territorio. Esta fase, que se desarrolló durante las tres primeras sesiones del TDP, los participantes utilizaron diferentes medios para compartir sus conocimientos sobre su comunidad e identificar los temas generadores que serían los ejes para el desarrollo del taller. Entre los medios utilizados se destaca la lectura de imágenes y secuencias fotográficas en donde cada participante imaginaba una historia a partir de lo que observaba, de esta manera se recordó a los jóvenes que cada uno es naturalmente creativo y todos los relatos son bienvenidos en este espacio. De igual manera se plantearon dinámicas de consenso para definir una serie de acuerdos entre el grupo que fomentaron la participación y compromiso hacia el proceso.

El eje de la etapa de co-descubrimiento fue el co-diseño de mapas colectivos, que implementó la actividad propuesta por *Community planning Project*. En esta actividad los participantes tomaron decisiones y llegaron a convenios para co-diseñar un mapa comunitario en donde se identificó el lugar en donde viven, su recorrido diario y los lugares importantes dentro de su pueblo. Al socializar este mapa con el grupo se compartieron historias y anécdotas, como leyendas sobre cuevas subterráneas que conectan los pueblos en esta región. En base a estos diagramas se pensó en futuros posibles, en donde los abuelos de la comunidad viajan y los jóvenes deben mantener vivos sus conocimientos en el pueblo. Esta actividad dio paso a la discusión sobre el tema generador, que fue otro de los ejes de esta primera etapa.

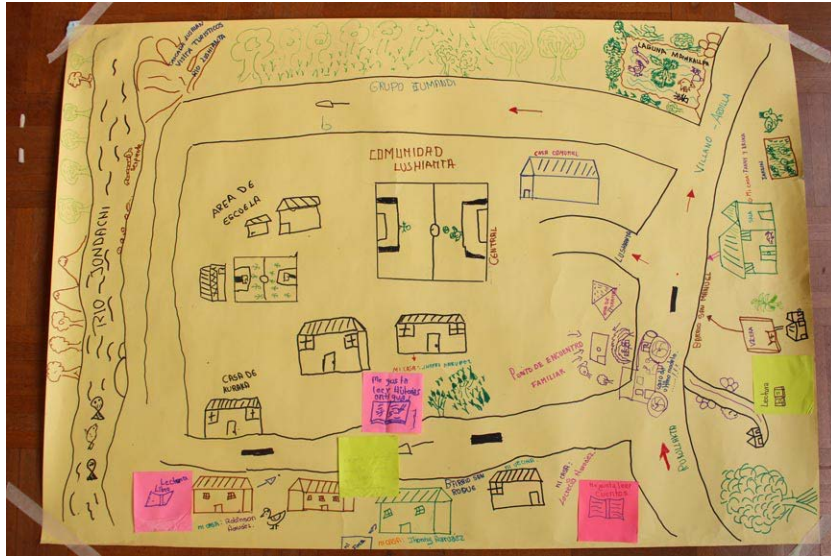


Figura 1. Mapa comunitario de la Comunidad de Lushianta, co-diseñado por los participantes.

El Tema generador (Freire, 1969), se desarrollo a través de la actividad “*si para mi no para los demás*” . En está dinámica los jóvenes debaten para exponer los pros y contras de los tema que quieren investigar. En este proceso los diseñadores fueron facilitadores del dialogo. Finalmente cada grupo decidió un tema para el Laboratorio Ancestral, los temas elegidos fueron: *sabidurías sobre vestimentas y artesanías y sabidurías sobre juegos y danzas tradicionales*. Durante esta etapa varios participantes utilizaron su propia lengua, el Runa Shimi para compartir sus conocimientos y utilizarlo en dramatizaciones.

3.2 Co-ideación

La fase de co-ideación se realizó durante la cuarta, quinta y sexta sesión, en donde cada grupo desarrolló su tema generador. En esta etapa se fomentó el trabajo en equipo a través de la creación de redes de conocimiento, se exploró en las capacidades de expresión visual por medio de secuencias fotográficas, bocetos, diagramas de relación, mapas mentales y brainstorming visual (Lupton, 2011). Utilizando como referencia elementos relacionados al tema generador se vincularon las habilidades de investigación, diseño y participación. Estas actividades se enfocaron en motivar a los participantes para que imaginen y representen sus propias narrativas. Se utilizó el co-diseño de juegos para promover el interés en investigar sobre su pueblo y cultura. Esta actividad tomó como referencia el juego comunitario co-diseñado por un grupo de jóvenes del pueblo Maya de X-Yatil en el 2015 (Garcés, 2020). Sobre la base de este juego los participantes del taller desarrollaron una serie de tarjetas sobre elementos de su cultura que incluyeron: una representación gráfica, el nombre en lengua Runa Shimi/Español y una descripción sobre su uso. Los participantes utilizaron este material como un medio para entrevistar a otras personas de la comunidad, registrar sus conocimientos y en algunos casos ser traductores del Runa Shimi (Kichwa) al Español. Con las tarjetas completas (gráfica/nombre/contenido) se invitó a los participantes a imaginar juegos para compartir estos conocimientos con los niños de su comunidad. En esta actividad se propusieron varios juegos de mesa como 21, adivinanzas y tres en raya. Además se crearon dramatizaciones basadas en los contenidos de las tarjetas, utilizándolas en lugar de objetos para las danzas tradicionales como la cosecha del cacao. También se propusieron nuevas formas de uso para los elementos representados en las tarjetas y se complementaron los conocimientos entre los participantes.



Figura 2 Participantes de Porotoyaku jugando con las tarjetas co-diseñadas para investigar sobre la elaboración de artesanías.

Como parte de la fase de co-ideación se propuso dentro del taller un espacio de dialogo con mujeres, hombres y adultos mayores de la comunidad para que compartan sus conocimientos con los jóvenes. En esta actividad los participantes visitaron chacras con plantas medicinales para conocer sus uso y aprendieron/haciendo el tejido de canastas, desde la recolección y tratamiento de la planta hasta la técnica de tejido. Para registrar estos proceso se utilizó el método inductivo intercultural basado en la propuesta del lingüista Jorge Gasche (2016). El mismo que describe el uso de las siguientes preguntas: de donde viene el material para hacer este objeto? Cómo se elabora? ¿Cómo se utiliza? En esta secuencia se incluyó la pregunta ¿cómo se puede usar este material o producto para hacer algo nuevo?. El resultado preliminar de está actividad involucró a los participantes en el co-diseño de carteles que representaron la técnica aprendida.





Figura 4 Socialización del proceso de tejido de canastas desde la recolección del material al producto final.

Los resultados tangibles durante esta etapa del taller contribuyeron a fortalecer la confianza en el proceso de diseño participativo, a reconocer sus habilidades de expresión gráfica e investigación, a reconocer a los actores que forman parte de las redes de conocimiento local y a reconocerse a sí mismos como activadores y promotores de su propia cultura. A partir de esta experiencia y del compromiso que se generó entre participantes y facilitadores pasamos a la etapa final del proceso con el co-diseño y co-implementación del material final del laboratorio.

3.3 Co-diseño a partir de sabidurías ancestrales y co-implementación

Los procesos que se describen a continuación fueron el resultado final del proceso de diseño participativo. Dos proyectos finales se realizaron, estos fueron: la co-creación de una dramatización sobre la pedida de mano o compromiso de matrimonio y el co-diseño de un libro infantil sobre la creación de artesanías. Cada proyecto siguió el tema generador propuesto por los participantes y decidió el medio para compartir los resultados de su proceso.

3.3.1. Co-creación de una dramatización sobre la pedida de mano o compromiso de matrimonio

La dramatización co-creada por el grupo de participantes de Rukullakta se basó en el proceso de diseño participativo desarrollado en relación a las *sabidurías sobre juegos y danzas tradicionales*. Durante el laboratorio este grupo integró los conocimientos de su comunidad sobre el tema y generó una serie de juegos y sketches utilizando los materiales desarrollados en la fase de co-ideación. Desde el inicio del laboratorio este grupo expresó su interés por vincular la lengua Runa Shumi (Kichwa) y emplear la dramatización como una herramienta de expresión creativa. Siguiendo este interés, en las primeras fases del proceso de diseño participativo se propusieron dinámicas del teatro del oprimido (Boa, 2001). Estas escenas cortas, de entre 3 y 5 minutos aproximadamente, representaron situaciones tradicionales relacionadas con: la preparación de la chicha (bebida fermentada de yuca), la danzas de recolección del cacao, el juego de la chasquina (pelota hecha con hojas secas de maíz), entre otras.

La dramatización final sobre la pedida de mano reunió una serie de sketches sobre la caza, la pesca y la preparación de alimentos porque estas actividades son parte de los preparativos para el compromiso. En donde las familias de los novios intervienen para regalar a la pareja alimentos para la ceremonia. De esta manera también se representó la colaboración entre familias y el festejo en la comunidad. Esta escena involucró a 12 participantes entre 10 y 18 años, quienes se organizaron entre sí para escribir el libreto, seleccionar los personajes, hacer los repases en lengua Runa Shimi y apoyarse mutuamente en aprender los diálogos porque no todos los participantes tenían el mismo nivel de expresión de su lengua. En el proceso de co-creación de este proyecto final es posible observar lo que Yanki Lee (2008) describe como el ámbito de colaboración de emancipación/guía por los participantes en donde los diseñadores /facilitadores se convierten en estimuladores del proceso.

Este proyecto final se co-implementó con la comunidad en una reunión en donde asistieron dirigentes, adultos mayores y las/los participantes de los laboratorios. Esta socialización se realizó en la sede de la Asociación de Parteras del Alto Napo (Amupakin) con la participación de las parteras, que son mujeres reconocidas en su comunidad por su sabiduría. Tanto los dirigentes de PKR como las parteras disfrutaron y comentaron la dramatización presentada por el grupo de jóvenes.



Figura 5 Participantes de Rukullakta ensayando un sketche sobre un juego tradicional

3.3.2 Co-diseño de un libro infantil sobre la creación de artesanías

El libro infantil *Imarai, Imarai? O Qué Será? Qué Será?* Fue el resultado del proceso de co-diseño de los jóvenes del pueblo de Porotoyaku. El grupo tuvo como tema generador las “*sabidurías sobre vestimentas y artesanías*”. El libro infantil bilingüe dirigido a niños de entre 3 y 4 años, se enfocó en transmitir saberes locales sobre la elaboración de artesanías y en ser un material para aprender a leer en lengua Runa Shimi.

El co-diseño de libro infantil retomó las actividades realizadas durante la fase de co-ideación en donde los participantes representaron la secuencia de elaboración del tejido de canastas. A partir de la demostración realizada por Don Nicolas, miembro de la comunidad, los jóvenes del laboratorio

aprendieron a preparar el material (hojas de paja toquilla) y a realizar el tejido tradicional de canastas o ashangas. El grupo registró esta práctica dibujando la secuencia de actividades en base a las preguntas: de donde viene el material para hacer esta artesanía? Cómo se elabora? y ¿Cómo se utiliza? (Gasche,2016). Posteriormente, grupos pequeños de tres integrantes escogieron una artesanía para aprender/haciendo sobre sus materiales y procesos de creación. Los jóvenes utilizaron los conocimientos de sus familias para aprender sobre la elaboración de estas piezas y registrar en carteles las características de cada proceso.

Estos carteles se convirtieron en un libro de adivinanzas que recopiló los gráficos, bocetos y contenidos que el grupo de participantes desarrolló. En este sentido se observa que el proceso de diseño participativo se sitúa en el ámbito de colaboración impulsado por los diseñadores en donde cumplen el rol de co-diseñadores o facilitadores y los participantes son co-trabajadores/colegas (Lee,2008). Los facilitadores intervinieron en la revisión de los contenidos en Runa Shimi y Español con el apoyo de Linder Avilés, un joven líder de la comunidad y estudiante universitario. Además digitalizaron los contenidos del libro para tener una versión digital e impresa.

El libro Imarai? Imarai? O Qué será? Qué será? registrado bajo licencia creative commons, fue entregado en versión digital a los dirigentes del PKR y a los participantes del laboratorio ancestral para que se imprima y distribuya a las escuelas de la zona. El grupo de jóvenes presentó a la comunidad cuatro ejemplares impresos de este libro, como parte de la fase de co-implementación. La reunión de socialización se realizó en la Asociación de parteras Amupakin con la participación de dirigentes, adultos mayores y jóvenes del laboratorio. Posteriormente este libro se presentó en la escuela de la comuna La Libertad en Archidona. En donde profesores voluntarios utilizaron este material impreso para dinamizar el uso de la lengua Runa Shimi con sus alumnos. Como resultado de esta co-implementación los niños de la escuela se concentraron en observar el libro, opinando, corrigiendo, aprobando y hablando en Runa Shimi que normalmente no lo practican dentro del espacio de la escuela.



Figura 6 Páginas internas del libro *Imarai, Imarai?/ Qué Será? Qué Será?*

4. Limitaciones en el proceso de diseño participativo

Las limitaciones que se describen a continuación se presentaron para iniciar el proceso de participación con la comunidad y en el desarrollo del laboratorio de diseño participativo.

Para iniciar el proceso de participación con el Pueblo Kichwa de Rukullakta, la principal limitación fue que el equipo de investigación se ubicó en la ciudad de Quito, a cinco horas en transporte público de la ciudad de Archidona. Durante los primeros meses del proceso, de diciembre 2017 a febrero 2018, el

equipo de investigación visitó la población en varias ocasiones para entrevistarse con los dirigentes del PKR, para coordinar la convocatoria y para conocer la comunidad. Sin embargo estas visitas no fueron suficientes para crear otros espacios de dialogo con la comunidad que retroalimenten el laboratorio de diseño participativo. En el primer laboratorio realizado en el pueblo Maya de X-Yatil (2015), el equipo de investigación se concentró en la comunidad lo que facilitó la creación de redes de aprendizaje que involucraron a otros miembros de la población. En el Laboratorio Ancestral en PKR si bien contamos con la participación de mujeres y adultos mayores para compartir sus conocimientos, no fue posible desarrollar otros procesos paralelos al laboratorio de diseño participativo. Durante los meses de implementación del laboratorio DP, de marzo a mayo 2018, el equipo de investigación viajó cada fin de semana a las poblaciones del PKR. Esto limitó el tiempo de convivencia con la comunidad y la posibilidad de conocer a profundidad las iniciativas locales.

Por otra parte, las dificultades en el desarrollo de los laboratorios DP fue la limitación de recursos en relación a: el uso de equipos como computadoras o proyectores y el acceso de internet. Esto definió que las actividades realizadas sean análogas. En el caso del co-diseño del libro infantil Imarai, Imarai? los facilitadores estuvieron a cargo de la edición y digitalización del material final. En esta actividad sería preferible compartir con el grupo de participantes el uso de software libre para diseño, con lo que los jóvenes podrían llegar hasta la etapa final en el co-diseño de su libro y desarrollar habilidades en el manejo de estos programas. De igual manera la infraestructura y mobiliario de los espacios en donde se realizaron los laboratorios no fueron los más adecuados. Esta situación dispersó la atención de los participantes en algunas sesiones, porque no se sentían cómodos en el espacio.

5. Discusión

Después de desarrollar los laboratorios de diseño participativo en los pueblos Kichwas de Rukullakta (2018) y considerar la primera experiencia en el pueblo Maya de X Yatil (2015), se observa que la flexibilidad de la guía de actividades sobre la que se basa la experiencia creativa permite a los participantes definir las características de su propio proceso de co-diseño. Se promueve un proceso abierto (Mattelmäki & Visser, 2011) en donde el objetivo en las fases de co-descubrimiento y co-ideación es encontrar los intereses generadores (Freire, 1969) de los participantes e identificar las oportunidades para explorarlos. En este escenario, el proceso de diseño participativo crea un sentido de empoderamiento en el grupo de participantes por intervenir en la toma de decisiones y en ser consientes de las consecuencias que esto conlleva (Sanoff, 1990). En este proceso, tanto los participantes como los facilitadores se encuentran en el mismo nivel de colaboración y dialogo, desde donde plantean su pensamiento a través de un dialogo de saberes que promueve acciones reflexivas (Freire, 1969).

De esta manera, se observa que los resultados del proceso creativo tuvieron incidencia en cuatro áreas que son ejes importantes desde el inicio de esta investigación. Estas son:

Promover el dialogo intergeneracional. A partir del tema generador (Freire, 1969) se crearon redes en la comunidad para investigar, registrar y jugar en base a las sabidurías locales. Estas redes involucraron a niños, jóvenes, adultos y adultos mayores principalmente de las familias de los participantes, quienes apoyaron el proceso de diseño participativo compartiendo sus conocimientos y validando los materiales co-diseñados durante el laboratorio.

Uso y revitalización de la lengua Runa Shimi. Está es una lengua viva en el territorio del PKR, sin embargo los jóvenes no se sienten cómodos de hablarla en espacios educativos. Dentro de los laboratorios fue interesante promover el uso progresivo de la lengua y ver como los participantes la

utilizaron en el co-diseño de los proyectos finales. De esta manera se trabajó sobre una de las problemáticas entorno a los programas educativos, que es la escasez de materiales didácticos en su idioma.

Fortalecimiento de la educación comunal. Para implementar un proceso de diseño participativo que fortalezca los procesos comunitarios se consideran los enfoques propuestos por la educación popular (Freire, 1969) y la educación comunal (Martínez, 2002). Desde donde el trabajo de los facilitadores/diseñadores empieza por considerar los intereses de la comunidad. Con esta acción los participantes pueden apropiarse de su propio aprendizaje. Al reconocer los intereses de niños, jóvenes, adultos, abuelas y abuelos se obtiene la participación de la comunidad.

Diseño de juegos para el aprendizaje. En este sentido se toma en cuenta la amplia trayectoria del diseño de juegos dentro de las metodologías de diseño participativo, por permitir la creación de nuevas categorías y perspectivas para que los participantes puedan crear sus historias y contarlas. El diseño de juegos en comunidad es una forma atractiva y divertida para ser utilizada por personas con diferentes conocimientos, habilidades e intereses (Garcés, 2020).

6. Agradecimiento

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Sustainable Design Education in Mexico, towards a non-colonial post anthropocentric design

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This article is an extension of my participation in the PIVOT 21 Virtual Conference seeking to deepen the conversation around design for the pluriverses in sustainable design education in Mexico and Latin America.

As discussed in the Ancestral Future, El Futuro Ancestral panel of the Conference. We, Designers and actors from the Global South, are in the path of a transition into other ways of doing design, and dismantling the imposing structures, finding inspiration in our ancestral views of the world. The conference and the present research work raise the question of how design and design education in our territories of the Global South could learn and produce a new vision of design. A design that takes everyone into account, all terrestrial agents; a design that sustains, repairs, and respects life.

Design education in Mexico and Latin America needs to adopt sustainability at its core, and it needs to be decolonized, finding its roots in the Buen Vivir (good living, collective well-being) philosophies. My research sets the groundwork for a new design curriculum for sustainable design education that adopts this view. For this, I am mapping current sustainable design education programs and teaching practices in the most important design schools in Mexico. I used the Fringe methodology of future studies to map the new critical design studies in a time frame of what is happening now, what could happen soon and in the far future regarding these subjects to have clarity on the path we have to undertake on sustainable and social design education

Education for sustainability, Designs of the south, Anticolonial Design, Radical Interdependence.

1. Introduction: The contributions of design to the crisis

As a Mexican designer with an Indio name from the Antilles, who has lived abroad in some Latin American and European countries, I have submerged myself in two worlds: the world of our ancient cultural *Buen Vivir* (good living, collective well-being) roots and the eurocentric modern world. Trying to raise the question of how design and design education in our territories of the Global South could learn and produce a new vision of design; one that eliminates or dismantles the capitalist structures that have submerged design as its ally on the destruction and Defuturing of the planet and its habitants. According to Tony Fry (1999), Defuturing is the denial of future worlds for us and many others of our ignored non-humans. It also denotes denial of crisis by design and a lack of understanding. He continues:

We act to defuture because we do not understand how the values, knowledge, worlds and things we create go on designing after we have designed and made them. [...] we have very little comprehension of the complexity, ongoing consequences and transformative nature of our impacts. (Fray, T., 1999, p.10)

After more than 40 years of research and calls to action by the scientific community and groups of the society, it is clear by now that the capitalist, anglo-saxon, eurocentric, patriarchal “*modelo civilizatorio*” has failed to provide fair equal rights and resources for all humankind and sustain life on earth. The consequences of this civilizational model are devastating, we are submerged in a socio-environmental crisis due to its depravatory practices. As mentioned by Arturo Escobar (2018): “[...]the contemporary crisis is a crisis of a particular *modelo civilizatorio*, or civilizational model, that of patriarchal Western capitalist modernity.” (p. ix).

Some days after PIVOT 21 came to an end, the new Intergovernmental Panel on Climate Change (IPCC) report was published (Aug 8, 2021), with alarming and not so surprising news: “Many of the changes observed in the climate are unprecedented in thousands, if not hundreds of thousands of years, and some of the changes already set in motion—such as continued sea level rise—are irreversible over hundreds to thousands of years.” (IPCC, Aug 9, 2021). The report also states that human activities are the cause of the environmental crisis: “It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.” (IPCC, Aug 9, 2021).

As mentioned by the Design for Social Innovation and Sustainability (DESI) Network (2020) in their Philosophy Talk #7.2, design has a great responsibility on the state of affairs in this global socio-environmental crisis:

The environmental crisis we are facing is, at the end, first and foremost, an anthropological crisis. Design played (and often still plays) a role in this state of affairs. We designed (and still design) many products, services and systems aimed to fulfill human interests only and often only for a small portion of mankind. (Tassinari et al., 2020, p. 244)

This anthropocentric-capitalist way of thinking about design and design itself has its roots in the industrial revolution. A moment when design was, and often still is, at the service of the industry and the market. This occidental-modern view of design has put us, designers, simply as problem solvers at the service of the industry, designing merely attractive products and services that function under market logic; thus, contributing not only to the environmental crisis but also to the socio-epistemological crisis caused by the ways design shapes our worlds and cultures.

To understand its role in this crisis, it is important to understand how design formulates our lives. Everything around us is subjected to design, and design is subjected to the designed world in which it is immersed. These transformations of our realities and how design modifies our lives, show us the need to have an ontological approach to design. If we do not change the ontological understanding behind design and its practice, we cannot change the world it is designing. In the words of Escobar (2018): “Design is ontological in that all design-led objects, tools, and even services bring about particular ways of being, knowing, and doing.” (p.x).

If design has shaped the world that has shaped us, design can also play a role in changing the course of humankind; and with its new critical approaches, including learning from the south, we, designers, can play an important role in the planetary and social restoration.

Due to its tools, methods, capacity for analysis and problem solving, as well as its ability to bring together knowledge from other disciplines to transform them into a language, objects, or other media that can be understood, used, and approached by humans, Design plays an essential role in the transition of the socio-environmental crisis of the Capitalocene.

To achieve this transition, we first have to teach the new generations of designers a different approach to the already failed eurocentric patriarchal way of designing, starting with the understanding of how design shapes our world.

My research aims at answering the question: What is the best way to teach sustainable and social design in Mexico, according to our contexts and today's socio-environmental crisis?, which might subsequently enable me to propose the first curricula in Mexico specialized in sustainable and social design.

My point of departure was the analysis of the state of education in sustainable design at undergraduate level in Industrial Design schools in Mexico.

2. Sustainable design education in Mexico

The methodology of my research consisted of the comparison of different industrial design curricula in Mexico, in combination with a series of interviews conducted with actors from the academy and the design world and day to day conversations with students of eco-design, social innovation and biomaterials courses of Universidad Iberoamericana Puebla and Centro. At the same time, different concepts from critical design studies that propose an ontological turn of design were analyzed and placed in a conceptual map using the Fringe methodology, to map the current state of sustainable and social design education in Mexico and the course it is taking.

Until recent years, and in many cases design education in Mexico is still being dictated by Eurocentric and Anglo-Saxon guidelines that on the one hand have perpetuated a dualistic and modern mentality of designers, and on the other, have prevented research and reflection on the realities that constitute the Global South, the needs of our communities and their circumstances.

According to Matilde Breña (2019), in most of these schools the educational model that predominates does not revolve around the making of research:

Research is taught from the models and publications edited in foreign universities that, even if they are of great relevance to the field and its practice, they are also a way to consolidate the abstract universalism among the mentality of designers, which leads to ignoring the conditions and needs of the communities of our environment. (Breña, M., 2019, p. 90).

To better understand the state of sustainable design education in Mexico and how it is taught until now, I gave myself the task of comparing 11 curricula of Industrial Design bachelor's programs. The chosen criteria for selecting these programs were: First, that they were certified by the Mexican Council for the accreditation of design programs, COMAPROD, whose purpose is to get design education programs accredited at the undergraduate level both in Mexico and internationally. The second criterion was that the curricula had a social or sustainable approach, or that they had a subject related to eco-design or sustainability. And third, public and private universities that teach design were selected either by their importance, like the Universidad Nacional Autónoma de México (UNAM) or by their presence in diverse national and international design platforms, which is the case of Centro or the Tecnológico de Monterrey.

School/ institution	location	name of degree	curricula with sustainable or social approach	Sustainability subject	year taken	Head of social or sustainable design subject	interview	stud	NOTES
Centro	Mexico City	Industrial design	✓	cultura sustainable	1st+3rd	Paulina Conejo	✓	not anytime	social design lib DESIS member
CIDI UNAM	Mexico City	Industrial design	NO	Design Context & Sustainability	3rd	Raul Torres Maya	✓	✓	
Anahuac Norte	State of Mexico	Industrial design	?	Responsabilidad Social & Sustainability	4th	?	NO	NO	
EDIMBA	Mexico City	Diseño	?	Social & environmental ethics & design	2nd	Omar Mendoza	NO	✓	
Facultad del Habitat UASLP	San Luis Potosi	Industrial design	✓	Habitat & sustainability	1st	?	NO	-	
Ibero CDMX	Mexico City	Design experiences & Products	✓	People & their social environmental context	2nd 3rd 4th	?	✓	✓	
Ibero Puebla	Puebla	Industrial design	✓	Eco design	5th	Taina Campos	✓	-	
ITESO	Jalisco	Diseño	?	life cycle analysis	4th	?	NO	-	
TEC CCM	Mexico City	Industrial design	NO	-	All	Inés Alvarez	✓	✓	
UAM Atzacapozalco	Mexico City	Industrial design	NO	sustainable design	1st	Sandra Molina	✓	✓	LENS member
UAM Wajmalpa	Mexico City	Diseño	NO	-	-	Brenda García	✓	NO	LENS member
UVM	Mexico City	Industrial design	?	sustainability & eco design	3rd	?	NO	NO	LENS member

Fig. 1. Main design curricula and their sustainable and social approach. source: self-creation

Before this analysis, I conducted a literature review of the specialized sources, as well as journals, magazines, blogs, social media and other publications, to find several different approaches of the new critical design studies and new design practices, like transition design, activist design, Living Systems Design or Decolonial design, and I placed them in a map of temporalities, according to what is happening now, what could happen soon, and what could happen in a far future. This, with the objective of finding a guide for the future of sustainable design education in México. I used a method that belongs to future studies called Fringe to map the contexts, new approaches and nowadays tendencies of sustainable design and social innovation. This method was created at the Future Today

Institute, based on the detection of trends and signals that look for contradictions, inflections, practices, hacks, extremes, and rarities.

FRINGE

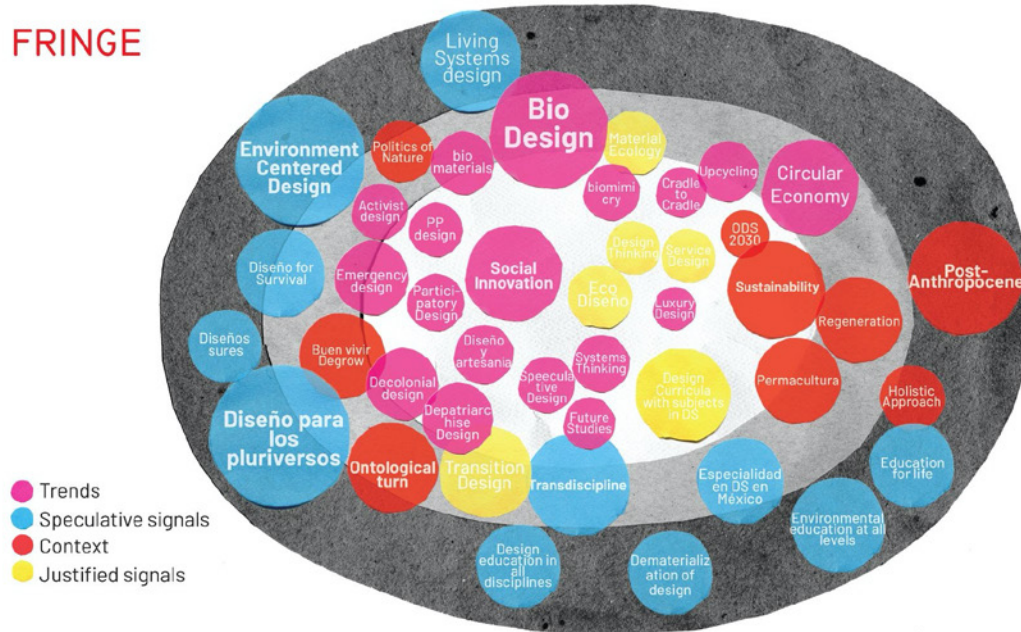


Fig.2 Fringe mapping contexts, new approaches and nowadays tendencies of critical design studies. source: self-creation.

These two methodologies were then compared with data gathered through a series of interviews made to different actors of the design academy and in the broader design world in Mexico, who have an inside view of where sustainable design is at the moment and where it is heading to.

What I found from my early personal experience and verified with my research is that Mexico is still at an early stage concerning sustainable design. Even if the majority of the compared schools have a subject related to sustainable design or ecodesign, in most of the cases this is just a complementary subject, not regarded as essential to the design profile, and it usually involves the redesign of products focusing on one aspect or phase of the production or design process only, like the use of recycled materials or less harmful process. We could say it's addressed as green design (Ceschin & Gaziulusoy, 2016).

These subjects are generally taken from the 3rd year of studies onwards, the justification for this is that students need to be more prepared on the design, materials and production processes. But according to various students and some of the interviewees, among whom some are directors of the programs or the head professors of these subjects, the sustainable or social approach is being introduced to the students too late in their studies. This causes conflict to the students who have to unlearn what they have been taught and in some cases even learn about completely new design approaches like the Sustainable Product-Service System or the circular economy.

There are some cases like the Universidad Iberoamericana Puebla (Ibero Puebla) whose curricula are being changed towards a full approach of these subjects, using sustainability and system thinking to address wicked problems in design in the main design courses, so the ecodesign, social innovation and ethnography subjects are regarded as the core. Other schools like Centro are also working towards including sustainability and social innovation at the core of their design courses.

The challenge that these changes pose is the graduates' profile contrasts with the job offers that they come across when they encounter the design professional field. The design-related fields of work are still looking for professional experts in designing good-looking products and large-scale production solvers.

Other efforts for integrating sustainability and social innovation in education are being made by the Universidad Autónoma Metropolitana (UAM), where at the terminal phase of studies some students participate with the Learning Network on Sustainability, LENS network, developing participatory design projects with different communities in the field.

In recent days an encounter of great importance to the design conversation, education and practice, occurred in Mexico. The Buen Vivir Routes, or *Rutas Para el Buen Vivir conference*, took place from the 30th of August to September 4th of 2021. It was a shared effort between Ibero Puebla and UAM to open a space for dialogue, work and share ideas and projects around design initiatives that seek to work with and for different communities, restore and sustain life, preserve and innovate crafts and aesthetic traditions in indigenous groups among many other subjects and workshops. The participants of this event could share and in the case of young design students, understand design and life experiences around the Buen Vivir philosophies of living and caring for the commons.

These philosophies are gaining interest amongst different groups and communities who find inspiration in those who have managed to resist colonial domination for over 500 years. From them, one learns a sense of community that is respectful of Mother Earth and the cosmos, which opposes the inevitably individualistic and predatory breath of development (Gustavo Esteva, 2016). Buen Vivir, live well, live to the fullest, the good life, the dignified life, correct life, good way of being, sweet life, austere life lubricated by affection, expressions such as these began to be used to distance themselves from the prevailing winds. These translations of indigenous expressions such as Sumak Kawsay (Quechua) and Suma Qamaña (Aymara) or Lekil Kuxlejal, a fair and dignified life, (Mayan Tzotzil and Tzeltal). It combines Western-centric environmental concerns with indigenous conceptions of Pachamama (Mother Earth). It vindicates the right of nature to be protected as a living entity whenever the stability and regeneration of its vital cycles are threatened (Esteva, 2016; Boaventura de Sousa Santos, 2011; Diana Albarran Gonzalez, 2020).

Another educational project that aims to change the conversation of traditional design education and promotes collaboration between design schools in Mexico, is the Taller Interuniversitario de Diseño (Interuniversity Design Workshop) or TiUD, a program that brings together students and professors from different design schools to work together in a project, in a multidisciplinary and participatory way.

It is important to note that the majority of the interviewees for this research, that, like I said before, are the head of the sustainable design courses, are also part of TiUD.

In addition, most of them are also women. When I asked about this, which might seem like a coincidence, I got similar answers: Women designers are the ones aiming for a change in design curricula, addressing sustainable and social design in their courses and talking about pluriversal design and transaction design, because we have gotten used to fight and fight for a common good.

As for the path that critical design studies, sustainable and social design is taking, the future of design, its education, and practice looks promising.

The majority of schools are beginning to understand the importance of teaching sustainable and social design education based on and inspired by our own context of the Global South, finally detaching design education from its relation with the imposed and adopted guidelines of the occidental world, it is becoming Decolonial.

These new design practices are nowadays related to Social Innovation, Participatory Design, design in collaboration or inspired by the “diseño artesanal” (artisanal design), bio-design, system thinking, circular economy. Thanks to the initiatives of some design actors and schools, as mentioned above, we are soon approaching transition design, feminist or depatriarchal design, Buen Vivir inspired design and most important, Decolonial design.

3. Designs for the pluriverses in design education in Mexico. The basis for a new design curriculum for education in sustainable design in Mexico.

To achieve the dismantling and reassembly of design it is necessary to educate future design makers with full awareness and involvement in the ontological turn that implies an understanding of the connection and interdependence between all the actors in the planetary system.

Even if design education in Mexico is transitioning to a new vision of the discipline aiming to propose a new practice that takes inspiration from the Buen Vivir philosophies, that cares for all actors involved in the design process human and non-humans and works together with different communities and groups of our own territories. It is still important to continue the conversation and urge for a new design education curriculum in Mexico centered on sustainable and social design. A specialized program with this focus could represent an opportunity for design in the global south to transcend its anthropocentric approach and for the emergence of a new way to design in Latin America, one that respects, repairs, sustains, supports and cares about life and autonomy.

After conducting the interviews, mapping the state of sustainable design education in Mexico, and immersing myself in a series of conversations and discussions, I present four basic approaches for a design education program in Mexico focused on sustainability, social and transitional design *para el Buen Vivir*:

1. Sustainability at the core and from the start

Today there is a widespread consensus that there should be no such thing as sustainable design. Design should, by default, be taught and practiced considering and respecting all the people and species involved in its process, working together with different disciplines and within different communities in our contexts. Sustainability should be an integral part of design education, and there should not be a choice between becoming a “product designer” or a “sustainable product designer”, many design educators are yet to embrace this multi-dimensional nature of sustainability. (Torres Maya, 2021; Papanek, 1974; Kjøllesdal et al, 2014).

All design educational programs should teach sustainability as the core of the practice and from the beginning of the studies, teaching students the methods and skills that allow them to design in a sustainable way taking into account approaches like the Product Service System innovations and community-based innovation combined with Human-Centered Design skills. (Ceschin & Gaziulusoy, 2016). So they are qualified to address the socio and environmental problems present in today's anthropological crisis.

2. Observe and reconnect with Nature

One of the key reasons and characteristics of the anthropological crisis is that modern contemporary societies have entirely lost the connection and understanding of nature and its process. Katherine Richardson (2020), a member of the Independent Group of Scientists that wrote the 2019 Global Sustainable Development Report, explains that:

For most of human history, humans knew that their daily survival was completely dependent on a respect for humanity's connectedness with the physical and natural work.

In humanity's most recent history, we have learned to harness external energy sources and control our own food production. These innovations removed, at least for much of humanity, the daily reminders that confronted our ancestors regarding the importance of the connectedness between humanity on the global ecosystem of which we are part.

[...]Most of us have lost sight of the fact that our societies and their continued development are completely dependent on our connectedness with the earth and its resources. (Richardson, K., 2020, p. 9)

In order to achieve a new practice of design, design students need to approach and immerse themselves in nature and natural systems. This could be achieved using methodologies of design like biomimicry or Design for Living Systems, but also by understanding and acknowledging the radical interdependency between all different agents that together constitute earth, all terrestrial, and recognize themselves as terrestrials. (Tassinari, 2020).

3. In fieldwork, confronting realities

As some of the compared schools and programs are already practicing. A key action for learning social innovation and participatory design approaches, as well as Human-Centered design methodologies, is the fieldwork. For students to better grasp a systems view of sustainability, real-world cases and practical project work needs to be a pillar of sustainable design education, with education moving outside the classroom. (Kjøllestad et al, 2014). This not only will provide design students with real-life situations, in the case of our own context and circumstances in Latin America, it will also confront students with other realities, other world views and life experiences happening in their own territories. This is essential to understand the ontological approach of design, and how they can set in motion a design that respects these other word views and the autonomy of the communities.

4. Educating with and for El Buen Vivir and the importance of our territories

The Buen Vivir philosophies and struggles offer a source of inspiration to design, to develop another form of design, one that respects and collaborates with nature, that does not arise from a Eurocentric vision, that does not use hierarchies but the participation of extended communities of people who relate to each other to create. According to Alfredo Gutierrez Borrero:

El Buen Vivir offers a fruitful ground in design, to design in the horizontal confluence of the ontologies of many human groups, among which we can identify general similarities like an ethic that recognizes nature as a subject of rights; decolonization that embraces the ecology of pieces of knowledge; overcoming the domination and instrumentalization of others, including nature; parity approach among pearls of wisdom; alternative conceptions of nature; expanded communities of people, non-humans, spirits and artifacts; and overcoming the material base through the enhancement of experiences and affections. (Gudynas, 2011, Santos, 2014, cited in Gutiérrez, 2015).

Educating with and for El Buen Vivir approach will not only provide students with horizontal, anti-patriarchal, decolonizing, and ancestral knowledge, it will also teach the importance of these philosophies and our territories for an ontological turn to approach a more sustainable and equal future for all terrestrial agents. This would mean teaching with a pluriversal approach, that is, fostering the coexistence of multiple worlds. (Escobar, 2018)

These four basic approaches for sustainable design education is yet to be expanded as my research progresses, but it sets a groundwork to develop the first design education program in Mexico with a sustainable approach, understanding that designing in and from Latin America can be the key for design to transcend the imposed occidental, dualistic, patriarchal and human-centered approach and that from our own circumstances and with the vast tools of our communities we can help transition to a world where we relate differently with the planet, and finally all ways of living and thinking have a voice and a place in a world we design together.

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About the Author

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Sjalel Lekil Kuxlejal: Mayan Weaving and Zapatismo in Design Research

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Situated in the highlands of Chiapas, southeast Mexico, this research seeks to contribute to decolonising textile artisanal design and the recognition of Indigenous design alongside Mayan Tsotsil and Tseltal weavers in search of a fair-dignified life, Lekil Kuxlejal. Using textiles as sources of rich knowledge and research metaphor, a woven methodological approach is developed by interlacing decolonial theory and design from the Global South. Furthermore, drawing from Indigenous onto-epistemologies such as *corazonar*, Zapatismo and Buen Vivir (good living, collective well-being), this study presents a new approach to textiles as resistance combined with Mayan cosmovision, and is in alignment with the *autonomía* of the independent collective Malacate Taller Experimental Textil. For this reason, the Zapatista principles of *Mandar Obedeciendo* (Leading by Obeying) have been used as research guidelines, and are intertwined with the *corazón* (heart) leading the way. The presence of the heart is active in past and present Mayan worldviews, language, textile knowledge and practice, and is connected to Zapatista ideology to *sjalel* (weave) Lekil Kuxlejal, a contribution to the pluriverse.

Mayan; Textiles; Weaving; Zapatismo

1. Introduction

Textiles are an important part of Mayan culture since its pre-colonial origin, and are strongly linked to tradition, identity and ancestral knowledge. Artisanal textiles have been used as a strategic entry point for poverty alleviation and development where NGOs and government initiatives bring external designers to train artisans and collaborate under dominant views of design from the Global North. These approaches, frequently focused on market-driven outcomes, clash with Indigenous ways of being and doing. This leads to situations where artisans are used as labour for the designer's collections (Lamrad & Hanlon, 2014), and their knowledge is extracted and appropriated (Smith, 2013).

Our research presents a decolonial alternative to textile artisanal design, seeking the recognition of Indigenous design. In collaboration with Mayan Tsotsil and Tzeltal weavers from the independent collective Malacate Taller Experimental Textil, we use textiles as sources of knowledge, combined Zapatismo, Lekil Kuxlejal and corazonar understanding what constitutes a fair-dignified life.

2. Positionality as an outsider-within

My personal and professional life has been marked by a feeling and position of in-betweenness, and this research was no different. I positioned myself as an "outsider-within", a place of "border spaces occupied by groups of unequal power" (Collins, 1998, p. 5) a place of paradox for decolonial efforts. This in-between space has led to the questioning of my identities in relation to other people and within myself, and to a deep reflection on the shifts in power, privilege, politics, and access (3P-A) according to the context (Albarrán González, 2020).

I am a woman, a mother, a craftivist from the Global South, born and raised in Chiapas, Mexico. I am also an 'ethnic' woman of colour, a Mexican in diaspora, a migrant from the so called 'Third World' living in a 'First World' country. Interestingly, I live in the last land to be inhabited and then colonised, the land of the long white cloud, Aotearoa, New Zealand. Living here and working alongside Māori colleagues, the native people of this land, has influenced my approach to identity and research and is reflected throughout my writing.

I am a 'mestiza' decolonising her own subjectivities, choosing to reconnect with her Indigenous ancestry but conscious about the privilege that the mestizo identity grants in the Mexican territory. I still wonder if it is possible for mestizos to reclaim our Indigenous identity and reclaim our Indigenous heritage without reproducing mestizo dominance and privilege. While I cannot fully answer this question, the pursuit of reconnection to my Indigenous roots became an embodied experience of transformation and healing through naming and knowing more about my Nahua ancestry (Aztec descendant) from my mother's side and P'urhépecha ancestry (Tarasco) from my father's side, and is still an ongoing journey.

Living in Aotearoa, and my in-between space, led to the questioning of my identities, especially around the connection to my Indigenous ancestry. According to Rivera Cusicanqui (2010), being mestiza is being and not being at the same time; the conjugation of the Indigenous and its opposite without mixing them, but it has also been perceived as being mixed or hybrid (Aboul-Ela, 2004; De la Cadena, 2006). Nevertheless, the ethical considerations of doing research with Indigenous communities has been deeply explored and considered, especially as a person from the Global South living and performing in the Global North (Benton Zavala, 2018; Marín-burgos & Enríquez Paz y Puente, 2015; Sahagún Sánchez, 2015). Location and other people's perception have greatly influenced what I have come to consider appropriate or not.

Being a mestiza researching Indigenous topics shifts according to location and the background stories of other researchers. It is not the same to present this research in Mexico, Latin America, Turtle Island, Australia or Aotearoa, as I have experienced. For example, according to Tedlock (1991), I did native research as someone “who (has) their origins in non-European or non-Western cultures and who shares a history of colonialism, or an economic relationship based upon subordination” (p. 80). From Te Ao Māori (Māori worldview), my Indigenous whakapapa (ancestry or genealogy) identifies me as an Indigenous researcher. While Indigenous identity is relevant, the diversity of historical background and context shift are important points to consider beyond academia for respectful and ethical approaches. The change of location and audience triggered a personal exploration to inhabit a space where people could understand my origin and ancestry beyond Latinx identity. Therefore, I identify as a Native Latin American, a decolonial stance by using the term Native before Latin giving priority to my Indigenous roots and a sign that I am from a Spanish speaking country in Latin America and not Native American from the U.S.

The outsider-within position and the paradox of doing design research was manifested in different ways. I enacted the role of design researcher and artisanal designer, educated under dominant-hegemonic design (Akama, 2017; Ansari et al., 2016; Escobar, 2016). I collaborated with an independent collective of Mayan Tsotsil and Tseltal weavers, mis compañeras and research partners from Malacate Taller Experimental Textil, towards the decolonisation of textile artisanal design as a kaxlana (mestiza in Tsotsil). This collaboration is reflected in this text shifting the voice between ‘I’ as a first person to ‘we’, as yosotras (a mixed of yo [I] and nosotras [us], yosotras).

At the same time, I am a woman of colour researching design, a space known to be predominantly white, male, cis gender at the service of the capitalist agenda. However, I seek to contribute to the transformation of the design field towards the recognition of the great value and contribution of Non-Western and Indigenous ways of being, doing and knowing, often perceived of as having lesser value to those coming from the Global North.

In this research from the Global South, mis compañeras of Malacate are considered my kaupapa whānau (Mikahere-Hall, 2017; Smith, 2013; Wilson, 2013) with shared values and skills, and it is aligned with the integration of collectivity (colectividad), and horizontality (horizontalidad) (Pérez Daniel & Sartorello, 2012), as appropriate context-based approaches.

3. Artisanal textile knowledge and practices in the highlands of Chiapas

Textile traditions are an important practice in the Global South and are critical for individual and community well-being, part of their Buen Vivir. Mayan textiles are strongly linked to identity, worldview, way of life, and are permeated with patterns telling stories through patterns, symbols, icons and colours. In the highland of Chiapas, the territories from different Mayan Tsotsil and Tseltal communities, textiles also serve as an identifier of the origin of the person wearing the garment, and to the expert eye, even to a particular family of weavers.

The commercialisation of textiles in the region has provoked changes at different levels. Not only the aesthetics of the garments appealing urban contemporary markets but also in terms of organisation, production, material, and symbolism. This transformation involves the creativity, innovation, and cultural re-signifying by Mayan weavers and embroiderers, showing their agency and autonomía over their culture and processes. However, the influence of designers in artisanal textile collaborations not only make these Indigenous transformations and agency invisible but also shows the bias of only considering designers as capable of innovation and creative processes. Nevertheless, the influence of traders and consumers perceiving textiles only as merchandise under the logic of the capital, aggravates the working and living conditions of the artisans and negates their autonomía. Therefore, it is important to

understand the strong connection of weaving (sjalel) textiles individual and community well-being and support their pursuit of a fair-dignified, Lekil Kuxlejal.

4. Lekil Kuxlejal, the Mayan Tsotsil and Tzeltal Buen Vivir

Buen Vivir (Good life, collective well-being) is a decolonial stance from Abya Yala. It is the creation of alternative worlds in harmonious co-existence for human and diverse beings with nature (Gudynas & Acosta, 2011). Lekil Kuxlejal (good life, a fair-dignified life) from Mayan Tsotsil and Tzeltal peoples, considered an equivalent to Buen Vivir, includes important aspects like autonomía, the recognition and importance of all living beings and the harmony between humans and nature (López Intzín, 2015; Schlittler, 2012). According to Avila Romero (2011), Lekil Kuxlejal requires to be in one heart (a collective heart), knowing how to listen, pursuing the common good, offering mutual support and obeying a mandate, in other words, to lead by obeying. The presence of the heart and leading by obeying are present not only in Mayan ways of being and doing but also in Zapatismo, points I will develop in the following sections.

The exploration of Lekil Kuxlejal was a key aspect of our research, wanting to understand how this worldview is manifested in textile work and organisation and what constitutes a fair and dignified life. Through co-design workshops, this concept was explored focusing on collective embodied creativity, sensorial activities, and the all-important exchange of dialogue following a design-by-doing using the heart as guide. The collective exploration became an appropriate medium considering our shared visual language as designers/artisans/artists and emphasis on mutual care in the desire to understand how mis compañeras live and manifest Lekil Kuxlejal in their work. According to Schuler and Namioka (1993), the mutual support of participants is an important aspect of knowledge exchange in co-design and participatory design research. It also invites everyone involved to “design our world, and ourselves, with others” (Akama & Prendiville, 2013, p. 31), in what we called a yosotros co-design.

The multisensorial co-design sessions involved the body, mind, heart, and spirit manifested through drawings, colours, patterns, photography and natural objects as modes of expression. The focus of multiple senses allowed going beyond visual creations. An example of this was Lucia's representation of Lekil Kuxlejal through a flower from the region stimulating embodied ways of communication, knowing and understanding.



Figure 1 Lucia's multisensorial expression of Lekil Kuxlejal. Source: Diana Albarrán González, 2020.

5. Corazonar, a heart-led approach

The heart (corazón, O'tan in Tzeltal) is important in past and present Mayan worldview (López Intzín, 2015; Pérez Moreno, 2012), and it is connected to Lekil Kuxlejal and Zapatismo. It was also present in pre-colonial Mesoamerican civilisations, and remains so in popular culture and some Indigenous

communities. This was also manifested by mis compañeras of Malacate through their language and textile practice. For example, they mentioned how they put their hearts when they sjalel (weave), and how el tejido no sale (weaving does not work) when their heart is sad. Therefore, acknowledging the importance of the heart was pivotal not only for mis compañeras but also aligned with my views.

Mayan Tseltal scholars and activists reflect on the centrality of the heart doing research and writings. O'tan or O'tanil is present in everything in the Earth like in water, plants, animals and mountains, they are alive, and as such, they are sacred and need care and appreciation (López Intzín, 2015; Pérez Moreno, 2012). This view is linked to different Indigenous worldviews where humans are only part of the whole but not central and our well-being is dependent on the whole. In contrast, modernity and coloniality prioritises the experience of privileged humans considering nature a resource to be exploited not as a living being. Therefore, our decolonial efforts should include different ways of seeing, feeling, sensing, thinking, expressing and being, corazonando towards a fair-dignified life.

Corazonar requires reasoning and feeling with the heart as a collective, co-razonar (razón, reasoning) (Cepeda H., 2017). This echoes Lekil Kuxlejal principles, to be in one heart, mutual support and common good and horizontality, as mentioned previously. These views became pivotal to fracture dominant design research approaches and for balancing our 3P-A, as well as the integration of the Zapatista principles of leading by obeying (Mandar Obedeciendo).

6. Zapatismo as guiding principles in Design Research

The Ejercito Zapatista de Liberación Nacional (EZLN) is an Indigenous resistance movement from Chiapas in defence of their territories, people, and rights. The Zapatistas have created autonomous communities, caracoles (snails), with their own governance, organisation, education system and health services, demonstrating that otro mundo es posible (other world is possible). Zapatista ideas have influenced other Indigenous communities and socio-political movements, and have been echoed by scholars throughout Mexico and Abya Yala (Escobar, 2018; Esteva, 2005; Mora, 2017; Santiago Santiago, 2017).

The Zapatista principles of Mandar Obedeciendo (Leading by Obeying) (Esteva, 2014; Komanilel, 2018) were a source of inspiration, and I used them as research guidelines to collaborate with mis compañeras of Malacate. This approach also includes following the pathway of the heart, con el corazón por delante (Zapatista expression). These principles are:

1. Obedecer y no mandar (Obey, don't lead).
2. Representar y no suplantar (Represent, don't replace).
3. Servir y no servirse (Serve, don't self-serve).
4. Convencer y no vencer (Convince, don't conquer).
5. Bajar y no subir (Go down, don't go up).
6. Proponer y no imponer (Propose, don't impose).
7. Construir y no destruir (Construct, don't destroy)

These principles help to regulate my role as an outsider-within and are key in my on-going relationship with Malacate. This table illustrates some examples of how these were applied in different situations.

Principle	Example
Obey, don't lead	I followed Malacate's protocols of interaction and collaboration rather than conducting the sessions under an academic agenda.
Represent, don't replace	Presenting our research side by side is the ideal scenario, although distance, language and time zones are some of the limitations we face. We have been exploring different mediums like co-presenting online or pre-recorded videos. When it has not been possible, I consulted with them about the presentation's content, and I emphasize the collective nature of our research.
Serve, don't serve yourself	My collaboration with Malacate field goes beyond academic outcomes. I am an advocate of their work and try to create spaces to echo their voices and creations.
Convince, don't defeat	This principle is being applied in the writing of the thesis, trying to focus on argumentations that validate other ways of knowing through ontologies and epistemologies of the South, and putting Indigenous experiences at the centre.
Go down, don't go up To work from below and not seek to rise (Wedes, 2014)	To be humble. This is particularly important when designers and researchers approach Indigenous communities and recognise them as experts in their knowledge, not putting formal academic formation and Euro-Anglo knowledge as superior.
Propose, don't impose	Our research focused on the creation of alternatives to hegemonic-dominant design through Indigenous Mayan knowledge and experience, instead of the imposition of academic extractions from the Global North.
Construct, don't destroy	In academia and design spaces, it has become apparent the predominance of critiques without action, especially around textile collaborations. My position as an outsider-within has been a latent concern and even provoked certain paralysis of how to advance our research. However, this principle helped to direct efforts into the creation of alternatives and proposals going beyond critiques.

Table 1 Zapatista's Mandar Obedeciendo (Leading by Obeying) as research principles.

7. Decolonising textile artisanal design

Our research proposes an alternative to textile artisanal design, seeking to decolonise design practices from the Global North (Botero et al., 2018; Schultz et al., 2018) and challenge the 3P-A of dominant design approaches. This requires reassembling design approaches to contribute to a pluriverse of design(s) from the South (Fry, 2017; Gutiérrez Borrero, 2015) where Indigenous ways of being and doing are the guidance. Our proposal weaves Mayan knowledge, textile significance and Zapatista principles through heart-led and Lekil Kuxlejal-centric approaches, as shown in the following diagram.

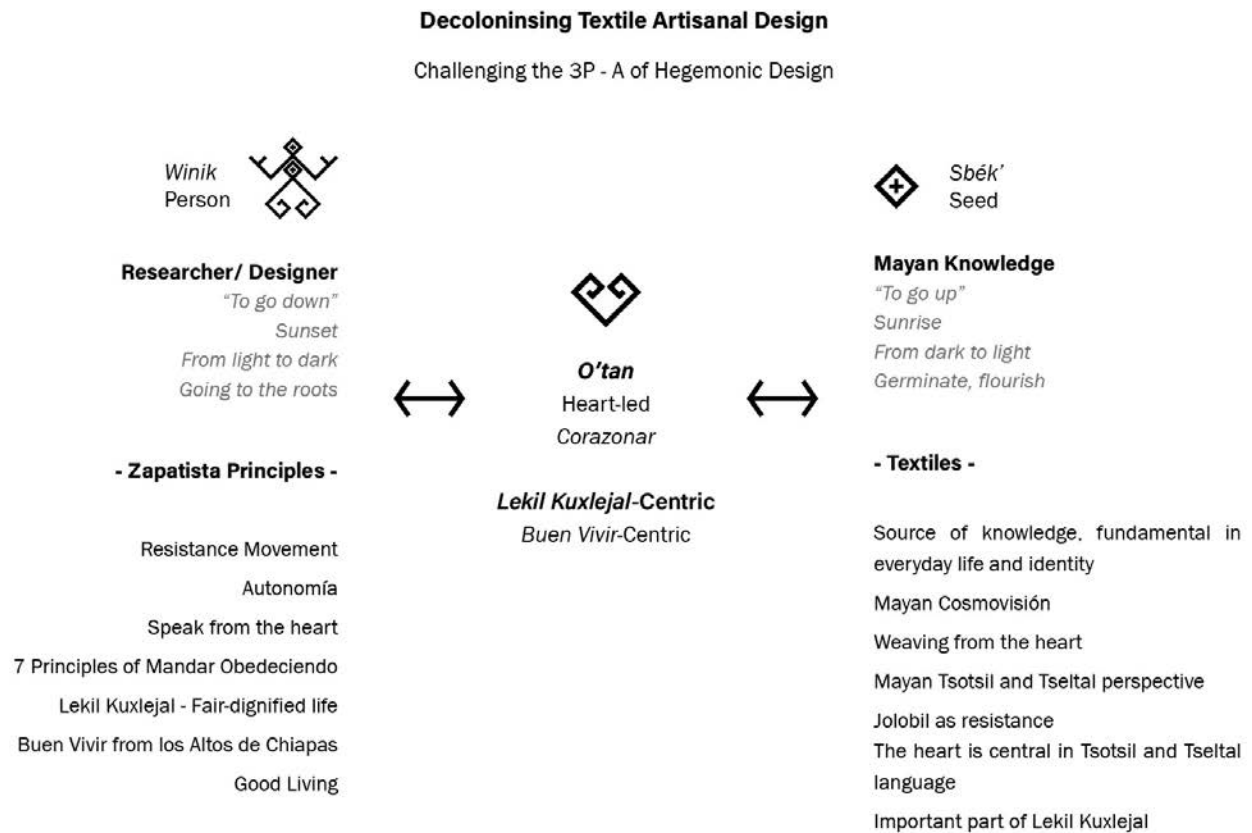


Figure 2 Connections of Mayan knowledge with Zapatismo to decolonise textile artisanal design research. Source: Diana Albarrán González, 2020.

We consider heart-led and Lekil Kuxlejal-centric approaches allow Mayan knowledge to flourish as a seed (sbék'), to go up. Simultaneously, the external designer or researcher as a person (winik) needs to be humble and go to the roots, to go down. This cyclical process echoes the natural rhythms of the pathway of the sun, reflected in textiles symbols, and work as a complementary duality, not as opposed binaries. The knowledge and teachings from Mayan ways of doing and 'being' textiles have been the main contributions, not only for this research, but also to transform my ways of understanding and approach to design, and my own sense of self. This approach also helped us to reflect and understand what a fair-dignified life means in textile artisanal work, creating a series of guidelines that respect the autonomía of the artisanal community. These guidelines are:

1. **Creativity as a right.** Artisans have the right to be creative, not only makers.
2. **Indigenous design is a right.** The acknowledgment of design (process, patterns, and techniques) as part of the rights of Indigenous communities as established by UNESCO.
3. **No individualism.** Trade or brand name not under one person as the designer (Indigenous and non- Indigenous).
4. **Horizontality, no hierarchy.** Artisans to be considered as designers/artists at the same level, not putting formal academic training and Euro-Anglo knowledge as superior.
5. **Personal and meaningful relationships.** Prioritise human relationships and interactions beyond monetary transactions.

6. **Colectivo autónomo (Autonomous collective).** Groups that are not dependant on external funding only, or transparency about the receiving external support.
7. **Long-term connections.** Collaborations that are respectful and committed, going beyond short-term transactions.
8. **Indigenous knowledge at the centre.** Rescue and revival of techniques, community-based innovation.
9. **Educate consumers.** Informing and educating consumers about context, processes with transparency (community, artisans, hours, techniques).
10. **Prioritize Indigenous language.** For example, huipil instead of kaftan.
11. **Alternative economies.** Operate under alternative economies that do not follow the logic of the capital such as a social and solidarity economy.

These points are grounded in our experiences, discussions, and reflections on ethical collaborations in highlands of Chiapas, and across Mexico. This could be the starting point for alternative ways of certification that are local, collective and accessible for textile initiatives operating under ethical, horizontal and respectful practices, aligned to Buen Vivir-centric design (Albarrán González, 2020). We recognise that one of the most challenging points is trading considering the fiscal and legal barriers under capitalism. This needs further exploration and development with community members and specialists who wants to dismantle predatory economic practices.

In summary, this article discussed our collective research towards decolonising alternatives to textile artisanal design. We shared aspects of our research journey using Indigenous onto-epistemologies like Mayan worldviews and textiles practices, Buen Vivir, Zapatismo and corazonar towards a fair-dignified life. We showed the results of our heart-led, Lekil Kuxlejal-centric approach to challenge the 3P-A of hegemonic-dominant design from the Global North, and presented guidelines as to regulate collaboration and that respect the autonomía of artisanal communities.

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About the Authors

Dr Diana Albarrán González is a Native Latin American researcher from Mexico, a mestiza of Nahua and P'urhepecha descent seeking to decolonise her own subjectivities and (re)connect with Indigeneity. Currently, she is teaching and researching in the Creative Arts and Industry faculty at the University of Auckland in Aotearoa, New Zealand. She graduated from the Māori and Indigenous faculty at Auckland University of Technology where her PhD thesis focused on the decolonisation of design in collaboration with Mayan weavers from Chiapas, Mexico, her birthplace. She proposed a Buen Vivir-Centric Design model towards a fair-dignified life, based on collective well-being, textiles, crafts-design-arts, embodiment and creativity. Diana has more than 18 years of experience in New Zealand, Singapore, Japan, Spain and Mexico applying, re-learning, researching and teaching design. This has given her the ability to address challenges in a variety of contexts, and the opportunity to develop a meaningful sense of culture and diversity awareness and sensitivity. She is a craftivist, a mother and an active member of the Latin American community seeking to contribute to women's and families' well-being through connections to our own cultural roots.

Malacate Taller Experimental Textil is a women-led independent collective focused on the reactivation, preservation, protection and diffusion of textile art in the Highlands of Chiapas. The group emerged 15 years ago based on the research from the ethnologist Karla Pérez Cánovas about artisanal textiles as a medium of cultural transmission and resistance from globalization in Zinacantan, later transformed into an applied anthropology project. Based on a self-determined and autonomous form of community organisation, Malacate has achieved the preservation and inter-generational transmission of their knowledge and customary practices as Mayan weavers. Currently, the collective is integrated by 90 women from 10 different municipalities in the state of Chiapas, Mexico.

A Lesson from Fazal Sheikh's "Desert Bloom" for Living in a Post-COVID World

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We are told that we can expect to live with an assortment of "new normals" at the end of the COVID-19 pandemic. We are also told that living through the COVID-19 pandemic has made *us* better able to face longstanding challenges such as climate change and inequalitarian social arrangements. In this paper I reflect on what we are being told by drawing on a lesson I have learned from Fazal Sheikh's 2011 aerial photographic series to locate evidence of Bedouin villages in the Negev desert in the wake of Israeli campaigns in the 1960s to "make the desert bloom." The lesson includes recognizing the importance of continuing what Asef Bayat has described as the "silent, patient, protracted and pervasive advancement of ordinary people on the propertied and powerful." All things considered, I have learned to be distrustful of and resistant to new ways of living that encourage us to learn from past suffering and disasters so as to become ever more resilient and ready for future suffering and disasters in a post-COVID world.

Keywords: COVID-19 pandemic, Fazal Sheikh, Bedouin relocation in the Negev desert, gray space

Early in the COVID-19 pandemic, Bruno Latour pondered on something that he had seen on television:

A Dutch florist was on television the other day weeping because he had to trash tonnes of tulips that were ready for shipping. ... Without customers, he couldn't air-freight them around the world. Of course, we cannot but feel for him; and it is right he is recompensed. But then the camera tracked back onto the tulips that he was growing without soil under artificial light before sending them off from Schiphol airport, on air-freighters with kerosene raining down, which makes one wonder: 'Is it really useful to prolong this way of producing and selling these types of flowers?' (Latour, 2020)

The story of the Dutch florist became part of “a lesson” taught to him by the coronavirus. The pandemic proved, as he put it, “that it is possible, in a few weeks, to put an economic system on hold everywhere in the world...”. That is to say that the coronavirus, something that ostensibly came from outside of an economic system, was somehow interceding to put the economic system on hold. Latour seemed to be suggesting that it would be a good thing if the economic system were to be put on hold. I remember thinking that putting the economic system on hold could help us to redeem ourselves for our role in ecological destruction in the past and encroaching ecological catastrophe in the future. Maybe there was an opportunity for a second chance? But I didn’t get the message that it took the coronavirus or the pandemic to teach us that lesson. Instead of thinking about the future I thought about the past.

I don’t know why ... but reading Latour’s essay made me think of Fazal Sheikh’s 2011 aerial photographic images of displaced Bedouin homesteads in the Negev (“Naqab” in Arabic) desert. Sheikh entitled the series “Desert Bloom” in reference to Israeli campaigns of the 1960s to realize David Ben-Gurion’s dream to “make the desert bloom” (Sheikh, 2015b,c). There was no readily apparent reason for me to connect Sheikh to Latour and what he wrote about what the coronavirus taught him. But, in hindsight, what was most important was the sentimental quality – maybe even a nostalgic quality – that came with my remembrance of Sheikh’s images. They were comforting in the face of something that had something to do with my hopes and expectations for what is ultimately unknowable about the future.

Latour’s response to the story of the Dutch florist somehow transported me back to the way I felt when I looked at Sheikh’s images. Asking whether it was useful to prolong economic activities that contributed to global warming driven by releases of greenhouse gases and resulting in large-scale shifts in weather patterns that threaten the existence of human beings was a rhetorical question we have been asking ourselves in a great many different ways and contexts for a long time. Then again, large-scale shifts in weather patterns also provided the context for Israel’s demarcation of territorial boundaries and the Negev. I remembered that the Israeli architect and Forensic Architecture Collective’s founder Eyal Weizman remarked that climate change would become increasingly important in the future when thinking about the “elusive demarcation” of the boundaries of the Negev.

Botanists define it by looking at changes in plant type, geologists by studying soil formations, and geographers by studying the density and form of human inhabitation. However, the desert line is most commonly defined in meteorological terms by the distribution of rainfall and dry air masses. As elusive as this threshold is, maps [under global international relations] demand clear demarcations. (Weizman & Sheikh, 2015, 7-8).

Whereas the northern and southern borders of the Negev with Egypt and Jordan are designated by fixed international boundaries, the northern border with the Negev has been defined by an aridity line, which, because of changing patterns in the distribution of rainfall and dry air masses over centuries, has shifted continuously over time and, currently, because of climate change is changing even more. As Weizman put it: “Like a shoreline, [the border] ebbs in drought years and washes past its cartographic delineation in rainy ones. The line drawn on the official maps in the Atlas of Israel and constituting is the average between all the years available on record, with fluctuations being in the range of 15 to 18 km on either side” (Weizman & Sheikh, 2015, 8).

What became known as Israel’s “Dead Negev Doctrine” repurposed mid-nineteenth century land laws established during Ottoman rule of the territory. The purpose of those laws under Ottoman rule was to encourage the continuous cultivation of land. Ownership of land was granted to anyone who cultivated

it continuously for ten years (Weizman & Sheikh, 2015, 9-10; Chaudhary, 2019, 101-102). Unfarmed and deserted land was regarded as “mawat” or dead land. Israel subsequently incorporated Ottoman law into its legal apparatus by, on the one hand, designating the entire desert to be legally dead and, on the other, ruling against Bedouin land claims in Israeli courts.

During the 1950s Israel re-located two-thirds of the Negev Bedouins into an area that was under a martial law (Manski, 2007). The re-located Bedouin were concentrated in the “Siyagh” (Arabic for “the permitted area”) triangle of Beer Sheva, Arad and Dimona. Land expropriation was used to do away with Bedouin herding and, commencing in 1966, Bedouins were forced to live in urban “townships” within the Siyagh. Weizman observed:

Forced urbanization severed Bedouins from the land and from their pastoral and agrarian lives and facilitated their proletarianization in industrial and agricultural projects—or even their incorporation as salaried soldiers into the military, where they were employed mainly as trackers or as an interface with the civilian populations of Gaza and the West Bank, after their occupation in 1967. (Weizman & Sheikh, 2015, 41-43)

He also noted that about 80,000 Bedouins refused to settle in the townships, returning to the routes of their nomadic settlements across the Negev.

A salient point is that, since 1931, the location of the aridity line that Israeli law uses to designate the border of the Negev has been a product of monitoring, calculation, averaging, and adjustment. Solving land claims disputes in Israeli courts over seemingly desolate, neglected, “dead land” and the vicissitudes of aridity and climate change then calls upon the need to countermand what has in the past presented itself as the totalizing efficacy of Israeli programs of resilience to rearrange terrain with fields, forests, military bases, mines, and industries in support of an agrarian movement to “make the desert bloom.” This became a goal for Sheikh and Weizman: To present the eighty-three photographs produced by Sheikh along with written evidence by Weizman to the citizen-organized *Truth Commission on the Responsibility of Israeli Society for the Events of 1948-1960 in the South* (Weizman, 2017, 215-304).

It is also noteworthy that the original stated purpose for publishing Sheikh’s “Erasure Trilogy,” of which the aerial photographic images of “Desert Bloom” made up the second volume, was to document more fully the legacy of the 1948 Arab-Israeli War in relation to what has since been commemorated as the “Catastrophe” (“Nakba”) by Palestinians and as the “War of Independence” by Israelis. On a high level of generality, Sheikh was interested in documenting dispossession and trauma of the Palestinian peoples; the need to redress historic injustices and to overcome colonial dependencies. In the trilogy’s first volume, “Memory Trace,” Sheikh searched for signs of the villages that had been evacuated after 1948 and the consequences of the displacement of more than 450 Palestinian towns and villages. “Initially imagining that some signs of their history would be apparent, and the latent past would spring to life,” Sheikh recalled, “in fact, clues were hard to discover, and time and again the traces of former inhabitation and historical events were difficult to find” (2015a, 5). But the ruins and rubble from former houses and shifted stone terraces, deserted mosques, old village cemeteries seemed somehow piecemeal and lacking. Frustrated by his inability to “fully visualize the situation” he hired a small plane to overfly the northern areas of the Negev “to isolate the clues it had to offer ... [and] assemble the pieces of an interconnected puzzle.” He remembered,

From above, the desert offered multilayered evidence of its geographical, historical, and political evolution. I could distinguish closed military zones, the traces of former unrecognized villages, the spread of afforestation, and the fields and buildings of Bedouin villages under threat, as well as the growing sprawl of Israeli settlements and the new military training camps and bases that had been moved to the area to protect them. (Ibid)

Furthermore, it is noteworthy that Sheikh's aerial photographs were subsequently used as evidence to both underscore the violent and oppressive character of the forced urbanization of Bedouins from their homesteads to "townships" to live among Israeli industrial and agricultural projects to cultivate the desert and, additionally, as evidence for violence and destruction that had not yet taken place, i.e., the assimilation and civil integration of Bedouins as citizens in an inclusive state in which the investigation of evidence of suffering becomes the duty of a democratic society (abu-Saad & Yonah, 2000; Yiftachel & Ghanem, 2004; abu-Rabi'a, 2008; cf. Weizman, 2011, 37-62). Oren Yiftachel (2009) usefully coined the terms "gray space" and "gray spacing" to describe both predefined policy frameworks of the state for creating informal living spaces for dividing populations and use of those frameworks by those divided for "disengaging their behavior, identity and resource-seeking from the state, and ... developing an alternative vision to civil integration as citizens in an inclusive state." Gray space today has also come to represent what Didier Fassin and Mariella Pandolfi have described to be a "global logic of intervention, which rests on two fundamental elements: the temporality of emergency, which is used to justify a state of exception, and the conflation of the political and moral registers manifested in the realization of operations which are at once military and humanitarian" (2010, 10).

Gray spacing, Yiftachel has written, also provides for the displaced four applications: visualising, polemics, recovery, and self-determination. And this is where I find common ground between what has in the past been used to legitimate Israel as a powerful military-industrial-financial presence both locally and globally and the justification to intervene "to put an economic system on hold" in the lesson the coronavirus taught Latour. This in turn provides me with a lesson for thinking about living in a post-COVID world. Simply put, the lesson is to avoid the mistake of uncritically accepting the explanations of those in power to define what constitutes states of emergency.

At the end of the pandemic, we have been told that we can expect to live with an assortment of "new normals." We have also been warned that forgotten perils and forewarnings connected with the rise of natural and human-centred disasters that hounded pre-pandemic life will persist and that we should not be complacent and preoccupied with returning to pre-pandemic normalcy. At the same time, some have suggested that, because of we have gone thorough the COVID-19 pandemic, we are somehow better equipped to face longstanding challenges such as tackling anthropogenic environmental harms in the natural world and inequalitarian social arrangements that persisted in the pre-COVID world. But when it comes to specifying who we are, it becomes clear that we are not all in this together.

Local particularities and historical peculiarities become connected even as they run in parallel. While COVID-19 "lock downs" to separate the infected from the uninfected seem somehow rudimentary interventions in the logic of public health interventions, unbalanced access to vaccines and other vital medical supplies and services between the Global North and the Global South reveals a shortcoming to secure a global cordon sanitaire. While the latter may originate in the defence of the political interests of nation-states addressing local COVID-19 epidemics, lack of access to vaccines and other vital medical supplies and services in the Global South summons up residual past practices associated with

subjugation and the aftermath of colonization. Inegalitarian social arrangements in organizing a global cordon sanitaire for COVID-19 stir up for me memories of pernicious forms of subjugation and deceitful emancipatory claims that encourage people to embrace their subjugation as though it were all about deliverance from disaster. Resistance and civil unrest follow – albeit slightly transformed in design, meaning and political resonance. All the same, the past is re-animated as subjects’ expectations for the future are shaped. Accordingly, protests and demands to rectify imminent ecological catastrophe and an array of longstanding social inequities are merging with a heightened collective sense of anxiety concerning the COVID-19 Pandemic and a perceived need to “bounce back,” i.e., to be resilient.

Not so long ago, Brad Evans and Julian Reid (2013) wrote about the emergence of a “resilient subject” becoming ever more resilient in order to weather the next economic downturn or natural disaster. Such a subject “must permanently struggle to accommodate itself to the world, and not a subject which can conceive of changing the world, its structure and conditions of possibility. ... [This] is a subject which accepts the dangerousness of the world it lives in as a condition for partaking of that world and which accepts the necessity of the injunction to change itself in correspondence with threats now presupposed as endemic” (2013, 83). What might such a subject look like today, living in a COVID-19 pandemic? If we have homes and jobs, our homes are becoming gray spaced as places to work and to raise families. A new class of entrepreneurs are celebrated as heroic for figuring out ways to privatize space travel. Meanwhile, “front-line” workers are celebrated as heroic for being “face-to-face” workers labouring in precarious uncertainty as to their employment in the future. By the same token, coastal towns and cities, as well as islands and other localities are experiencing firsthand the negative impact of climate change are becoming gray spaces. As a result, more and more people are joining the legions of forced migration as refugees and stateless persons seek safe, habitable homelands.

I will close by mentioning a news story reporting on an Intergovernmental Panel on Climate Change’s (IPCC) report to be published in stages over the next year. The story was reported with an appropriate air of emergency and worry of imminent disaster as it outlined the numerous tipping points in global warming we have already traversed. It indicated that increasingly severe heatwaves, fires, floods and droughts would have dire impacts for many countries in the near future. When interviewed by The Guardian, Myles Allen, a professor of geosystem science, commented that avoiding dire impacts was still possible: “It’s important people don’t get the message ‘we’re doomed anyway so why bother?’. This is a fixable problem. We could stop global warming in a generation if we wanted to, which would mean limiting future warming to not much more than has happened already this century. We also know how. It’s just a matter of getting on with it.” I thought to myself: Shall we then just get on with this matter in particular or shall we continue to work through, as Asef Bayat (1997, 57) wrote a long time ago, the “silent, patient, protracted and pervasive advancement of ordinary people on the propertied and powerful”? To this, I will answer a question with a question originally posed by Maria Kaika: “But what would happen if, instead of asking the usual interlocutors to refine the usual ‘inclusiveness,’ ‘safety,’ ‘sustainability,’ or ‘resilience’ indicators, we actually took seriously the increasing number of citizens and communities that refuse to be merely ‘included’ in predefined policy frameworks and refuse to participate in fulfilling ‘inclusiveness’ indicators?” (2017, 96).

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About the Author

Bill Leeming is currently an Associate Professor teaching in the Social Sciences stream of the Faculty of Arts & Science, OCAD University. Much of his academic work has focused on technology adoption in science, technology, and medicine. Why then is he writing about the aerial photographic images that Fazal Sheikh produced in 2011? Because they encourage him to look for ways of seeing whole social worlds in the face of encroaching neoliberalism and the threat of ecological catastrophe. This is not just about "this here" looking at "that there." Sheikh's images help us to understand that the myriad of rifts between humans and the world *and one another* exist in something more than a homogenous space.

Introducing Relationality to Design Research

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The Design Eurocentric legacy shaped its research practices based on separability and objectification. This paper seeks to reflect on the movement of experimenting and conceiving new methods as the beginning of major changes in the decolonizing design enterprise. The reflection stems from two main concepts: relationality and accountability. By going into the field, embodying other ontologies and epistemologies, I suggest that dismantling assumptions is an enriching and often painful process. It is by embracing uncomfortable positions and by unlearning that designers are able to reimagine design practices for decoloniality. This reflexive exercise is shaped as a conversation between my personal experiences – mainly in two distinct territories, Favela da Rocinha in Rio de Janeiro and the Janeraka Indigenous land, in the Mid Xingu River region – and academic theoretical learnings.

Design; Indigenous; decolonial; research; positionality.

1. Positionality

To acknowledge my positionality allows me to reflect upon and understand how race, gender, and class generate different ways of experiencing the world (Ribeiro, 2017, p. 40) and their impact on my relationship with others. It is also a reminder of the layers of complexity of individuals to avert the Modernity's homogenization trap.

An important reminder is that acknowledging one's **position** is not the same as granting **representativity**, but it allows reflections on the same themes from different viewpoints. As a Japanese–Brazilian ciswoman based in Toronto, I am constantly caught in two distinct realities of oppression and

privilege. In addition, I come from a family of politicians and activists from the peripheries of São Paulo. These facts allow me to question the power dynamics of current systems thoroughly. In the same regard, being a graphic designer helps me consider the different ways of sharing stories and how it weaves narratives. Storytelling is not neutral (Morales, 1998), so I am mindful of how marginalization results from the decisions made based on the media chosen, the vocabulary, and the symbols used. Equally important, as a percussionist, the music language, the body language, and the tempo are always present in my interactions. So, while you read this essay, I invite you to be mindful of my and your positionality to interpret the following words.

2. An Offering to the Decolonizing Design Enterprise

How are design tools and methodologies addressing different cultures, perspectives, and power dynamics for social change? Although it is preached as leverage to social equity, design methodologies are primarily being created and developed from the same Eurocentric and Anglocentric mindsets that have shaped the relations between the West and other cultures for centuries. Western tradition holds that settled truth is of the most significant value. But "It is impossible to see the whole of anything in a design from just one station point or perspective." (Nelson & Stolterman, 2014, p. 183). Moreover, in *Epistemologies of the South (ES)*, Boaventura de Sousa Santos (2014) states that there are no longer sufficient modern solutions for the problems we are facing. ES framework also claims the world's diversity is infinite and that transformation emerges from combining different worlds.

Despite and yet because of the Eurocentric legacy of design, rethinking design's methodological and theoretical foundations towards a decolonial practice is much needed. For this movement to occur, it demands changes in the very institutional academic and professional structures that still sustain its colonial ethos. That includes disrupting academic standards when they do not seem to conform knowledge from other centers.

In this sense, people in the system affected by design should be involved in the design process (Björgvinsson et al., 2012). A co-design approach aims to endeavour through less dichotomic concepts and connect different worlds. In acknowledging that fieldwork is a collaborative effort, I feel the need to consciously mention that these learnings do not come from a place of a designer making sense of the "native" wisdom (Sinha, 2003). Instead, they are formed in the relationships developed in the process.

Design creates new ways of living and thinking, and for that reason, the cultural and political agenda cannot be removed from the design, even when it claims neutrality. Looking into the power dynamics and oppressive system of conflict-affected spaces requires different ways of setting up a design process. This study narrates the experience of going in the field in two distinct territories: Favela da Rocinha in Rio de Janeiro, and the Janeraka Indigenous land, in the Mid Xingu River region.

I believe it is at experimenting and conceiving new practices that major changes will be made in the larger enterprise of decolonizing design. First by going into the field, embodying other ontologies and epistemologies, and dismantling assumptions. Second, by sharing these new learnings with accountability. Hence, this essay is a conversation between my personal experiences and academic theoretical learnings as a reflexive exercise.

3. The Enriching and Often Painful Process

While doing my master's in Toronto, I spent three months in the favelas in Rio. Arriving in these conflict-affected territories as a researcher from a Canadian institution was a real challenge as no favela resident seemed interested in speaking with me. I kept asking myself: "How could I gain this community's trust?" But, more importantly, "how could I connect and create meaningful relationships with favela residents?" Eventually, a few months later, I had the opportunity to visit the Marytykwawara family from the Awaete people in the heart of the Amazon Forest.

In both cases, I grasped those local inhabitants do not trust academic researchers. There is a sense that researchers are using the residents to appropriate the community's knowledge with no positive impacts on the community. Furthermore, in the Indigenous case, researchers are 'stealing' Indigenous knowledge to become experts in a culture that does not belong to them rather than contributing to the decolonization of research. (Smith, 2021) On these two occasions, I had one of the most challenging moments as a researcher. At the time, I didn't have as many mechanisms to deal with these conflicts as I have today. All along, I counted on my intuition to guide me through these experiences and to help me build trustful and meaningful relationships.

The assumptions we carry with us and the myths we believe are all defied when encountering other ways of being. In addition to the lack of trust from the communities, going into the field is a painful process because it puts us in an uncomfortable position to question our values and ego and reflect on where we come from. At the cutting edge, it challenges us to radically stop believing in underlying assumptions that shaped our worldview and our values our whole lives.

The *Social cartography of general responses to modernity's violence* (figure 1) guides the tensions, paradoxes, and contradictions in different reactions to the violence of modernity. It presents four discursive spaces.

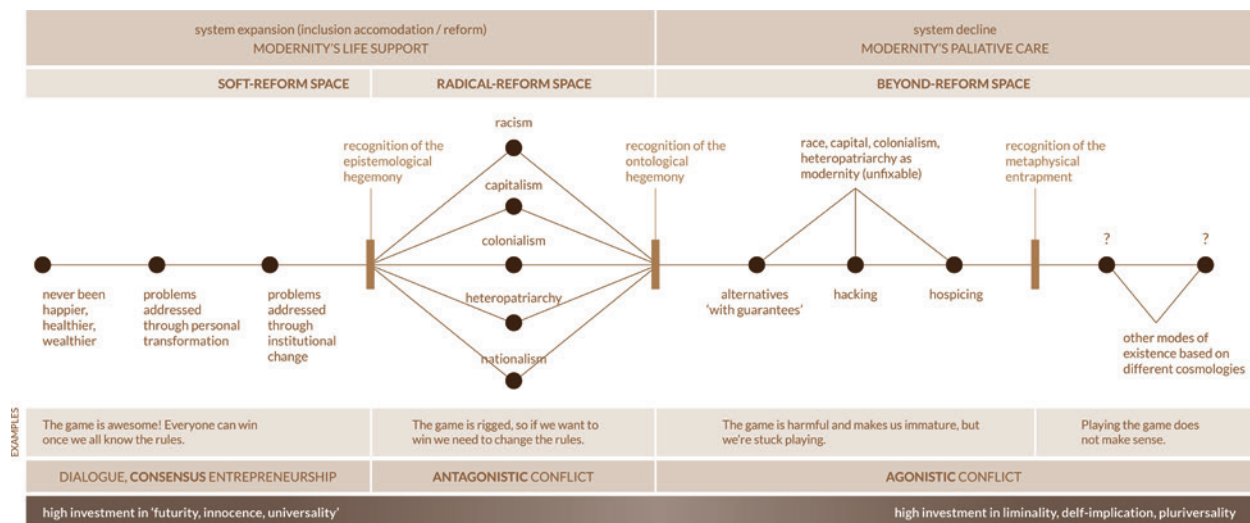


Figure 1 Social cartography of general responses to modernity's violence. Adapted from Mapping interpretations of decolonization in the context of higher education. de Oliveira Andreotti et al. (2015)

In the **everything is awesome space**, Modernity is grounding humanity in the advancements in science and technology, achieved within a linear notion of time and a seamless notion of progress. Therefore, any problems are perceived as minor and can be addressed by expanding or improving the existing system.

The **soft reform space** offers critiques focusing on inclusion mobilized through institutional transformation. Still, it emphasizes the rights and responsibilities of individuals to determine their own success or failure, measured by the values of the existing system.

The **radical reform space** recognizes an epistemological dominance title systemic analysis. It focuses on how unequal relations of knowledge production result in the severely uneven distribution of resources, labour and symbolic values. Assessments from this space tend to prioritize one dimension of Modernity, this interconnected violences and have a solid normative position that seeks to fix the mechanisms that produce inequalities.

The **beyond reform space** recognizes an ontological dominance. It connects different dimensions of oppression and rejects the idea that the mere addition of other ways of knowing will change the system. Within this space, the monitored system is recognized as irrecoverable.

One of the ways of reading this map is acknowledging that our experience is not linear. That means that what the authors call *hospicing* entails inhabiting the four spaces at once. It is a challenging position to be facing all the frustrations, contradictions, and incoherencies that emerge when we traverse all the spaces.

“Hospicing demands a critique that is self-implicated rather than heroic, vanguardist or ‘innocent’. It demands a kind of courage that is un-neurotic (not invested in self-affirmation): a kind of courage that helps us to look the bull in the eye, to recognize ourselves in the bull, and to see the bull as a teacher, precisely when it is trying to kill us.”
(de Oliveira Andreotti et al., 2015, p. 28)

4. Relationality

When I came back from these two experiences, I had different understandings of what research is and what connecting with people entails. And I use that as a fuel to further investigate alternative ways of knowing as an action to try deconstructing and unpacking design practices. That investigation led me to two main concepts that are helping me understand my path while traversing different reformed spaces: **relationality and accountability**.

Time’i Assurini, a pajé (shaman) from the Marytykwawara family, taught me that for the Awaete people, knowledge has the character of presence and relationship. It is an exchange of knowledge that transcends oral tradition, and it is not carried out exclusively between humans. In the learning process, the entire forest contributes to connecting with knowledge. An animal that moves in the woods, a bird that sings, a strange noise, a tree, the wind; those forest beings are constantly altering the environment and imparting wisdom.

If knowledge cannot be possessed, rather can be shared, and be connected to, then this concept itself impacts a designer’s entire approach to research. In his book *Research is Ceremony* (2008), Shawn Wilson explains that relationships do not simply shape reality. They are reality.

"Identity for Indigenous peoples is grounded in their relationships with the land, with their ancestors who have returned to the land and with future generations who will come into being on the land. Rather than viewing ourselves as being in relationship with other people or things, we are the relationships that we hold and are part of." (Wilson, 2008, p. 80)

Once, while giving a lecture to young intrapreneurs in a favela community, a person from the audience asked me how the result of my research helped her community. First, I presented her with all the numbers and facts of the direct impact of this project on the community. But most importantly, the research impact goes beyond the initial goals of that project. The relationships I create along the way are an essential – if not main – aspect of my design practice. Me being there, speaking to her, means that my relationship with knowledge extends to my relationship with that community.

5. Relational Accountability

One of the first activists I encountered when I arrived in Rio was Pedro Paiva. He is the founder of the collective *A Rocinha Resiste* and the collective *Sistema 2+1*. At the time, he grew tired of researchers approaching him to access the knowledge he built as a favela resident, then go back to their country, get a degree, and never offer anything in return to him or his community. For that reason, he created a list of commandments for researchers in favelas.

The ten commandments of the favela researcher (by Pedro Paiva)

1. The content produced must have as its motto the development of that favela.
2. At least 25% of the work must have the active participation of a member of the community.
3. The work produced must be kept in a favela library and in the library of a local educational institution.
4. If the work is developed in another language, it must be translated into Portuguese.
5. The researcher should give feedback to favela members each time the work is presented.
6. The researcher must commit to delivering the project to the government and institutions that can carry it out.
7. The researcher must carry out actions so that the knowledge and technologies developed in their study stay in the favela. They must also commit to acting so that these knowledge and technologies are used to benefit the favela.
8. The researcher must remain in the favela for a minimum of 24 hours.
9. The researcher must create a direct and permanent channel between himself and the favela.
10. The researcher must treat the image of the residents with the utmost respect, without value judgments. They will credit favelados (favela residents) in their projects and make an honourable mention to them every time the research project is mentioned or presented.

Pedro's Commandments make it evident that his community demands relational accountability from the researchers they interact with. Considering that research is grounded in the lives of individuals, rather

than in the world of ideas, on that ground, accountability is fundamental. This nature of responsibility is something I've been questioning from the start. What is my responsibility as a designer and as a human being? After building all these relationships, what happens next?

"The shared aspect of an Indigenous axiology and methodology is that research must maintain accountability to all relationships that it forms." (Wilson, 2008, p. 137)

The infrastructures that sustain design continue to be marked by separability and objectification. Given knowledge being relationship, I have incorporated relational accountability as a prerogative practice, in an attempt to move away from Eurocentric and Anglocentric praxis.

6. The Beginning

All the connections with humans, non-humans, and knowledge made through my experiences are the collective origins of the knowledge and invaluable learnings expressed in this essay. As I hold myself accountable for expanding these connections, I share a list of initial thoughts to boost reimagining decolonial design practices.

1. I start by thinking that all I've learned so far might be wrong.
2. I am part of my research and inseparable from the subject of that research. (Wilson, 2000, as cited in Wilson, 2008)
3. Knowledge is part of the relationships between us and cannot be owned.
4. Research must account for all relationships that it forms.
5. Building honest and trustworthy relationships requires considering the community's values, culture and ontology in the ethics that define the research.
6. The benefits of the research go beyond the research itself.
7. Relationships do not end when I leave the community.
8. I must be aware of the power imbalances and discuss them with the community.
9. I need to be conscious of how research could be best delivered to the community.

The human and non-human dimensions of relationships are a priority when advancing towards decolonized design. And this responsibility lies in the designers' hands and everyone's hands. For this reason, it is inherently limited to assume that this thinking ends with this essay. In fact, I can assure you that by the time this is published, it will already be outdated, and the relationship with the knowledge shared here will have been transformed, expanded. But I propose that this can always be the beginning.

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Approaching Ubuntu in Education Through Bottom-Up Decolonisation

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In our paper we contrast the idea(l) of an education that aims at community and planetary wellbeing with the current educational reality in South Africa. Drawing on our initiatives to integrate local indigenous knowledges (including use of home language) with the Western curriculum we address the question how to approach educational transformation *despite* and *within* the given educational context. We do this through telling our narrative stories as well as reflections on our research project geared towards bottom-up decolonisation. We offer this paper as an invitation to researchers worldwide to engage in scholarly debate around issues on decolonisation.

bottom-up decolonisation, indigenous knowledges, integration of knowledges, science Education, stories, Ubuntu

1. Introduction

The education envisioned in this paper builds on the Southern African philosophy of Ubuntu. Understood as *humanness*, Ubuntu comprises a dimension of 'becoming human' and 'being human' (Ramose, 2009). Both dimensions are realised through 'humble togetherness' (Swanson, 2009) in lived community and respectful, caring relations among humans, other species, nature and the universe (Seehawer, 2018a). Ubuntu offers a decolonial holistic framework for Southern African education that is steeped in African epistemologies, ontologies and axiologies (Afonso-Nhalevilo, 2013). Thereby, Ubuntu's dimension of *being human* presents ethical and methodological directions for how to

teach, that is, relational and holistic pedagogical approaches. Ubuntu's dimension of *becoming human*, in turn, provides normative aims of education, that is, educational 'agendas' that aim at the wellbeing of the (local, regional and planetary) community (Seehawer, 2021), which includes environmental togetherness.

Notwithstanding, there seems to be little scope for such education in South Africa's current educational system that aims at producing workforce for competing in the global (knowledge) economy, while regularly making headlines about poor student performance. Despite acknowledging indigenous knowledge systems (IKS) as part of the country's cultural heritage, the curriculum is tailored to the dominant Western epistemology (Ogunniyi, 2018). That is, both curriculum content, assessment and the structural set-up of education facilitate the reproduction of epistemic colonisation. For example, the South African school education is compartmentalised into subjects, which is in accordance with the atomistic understanding of knowledge that characterises Western knowledge production, but may clash with the holistic nature of indigenous ways of knowing. Correspondingly, current South African testing regimes centre on the individual and are exclusive and extractive rather than building on an inclusive and relational approach which would be characteristic for Ubuntu (Hapanyengwi-Chemhuru & Makuvaza, 2017). Such educational features bring about "a generation of African children who are being reared and educated without any anchorage in their own cultural and ancestral value systems" (Boukary, 2020, p. 149). How do we approach educational transformation against this background then?

The approach foregrounded here shifts the focus from the seeming powerlessness to the agency of teachers and educators (Seehawer, 2018b). In the following, we draw on our work on integrating local indigenous knowledges with the Western curriculum as examples of small-scale bottom-up initiatives that are possible despite and within the given system. We do this by presenting stories from three South African educators,¹ Mthembu, MaMthembu and Jola (clan names). They have experienced colonisation and Apartheid whose hegemonic agendas were to denigrate other ways of knowing, thinking, doing and being thereby alienating students in science classrooms. Similarly to Keane, Khupe and Muza (2016), we present these stories of our life experiences to illustrate how these shaped our values and belief systems, in particular, on the integration of indigenous knowledge in science teaching.

2. Our Personal Stories Count In Indigenous Research Agendas

2.1. *Mlungisi's personal story*

My clan name is Mthembu (*isiduko*) and my ²umbilical cord was buried in the late 1950s at Victoria Road, in the Fingo Village township in Grahamstown now called Makhanda. The Fingo Village is about 3 kms from the city centre and is separated by a river (in which I learnt to swim). The term 'township' was used by the apartheid government to designate a geographical area set aside for Blacks only. Notably, Victoria Road has the best view of the city and Rhodes University, in particular. Yet, in my childhood

¹ Africans and in particular South Africans use clan names to level power gradients in the community and also to show respect not only for people but for their cultures as well. For example, the clan name for our first democratically elected President in South Africa, Nelson Rolihlahla Mandela is Madiba and any one could call him like that regardless of age or gender. Also, the prefix Ma in MaMthembu denotes that the gender is female and there is no Ma, for example, Mthembu or Jola the gender is a male. Also, in South Africa children take the father's clan names.

² In isiXhosa culture when people ask a place where you were born they often say, "*Iphi inkaba yakho?*" [Wherewere you born]. This suggests the importance of place to them.

years we knew that we were not allowed to go and study at Rhodes. Rhodes University was then a faraway Promised Land, which was never to be reached.

Here I am a child in the late 1950s in a house made of poles and mud mixed with cow dung and old corrugated iron roof. For insulation purposes, my parents improvised and used card boards to make ceiling. My mother, MaRadebe (clan name) used cow dung as floor polish. She was a domestic worker. My father, Mthembu was working on the railways as a labourer. But home was home not only for us.

I remember that one day, bees came to our house and as children we were scared that they would sting us. To us children bees were a symbol of fear and pain. Surprisingly, when our mother came back from work she said bees were visitors (*iindwendwe*) and were not a bad omen but instead were bringing good news to the family. So, we were told not to kill them. Instead, my mother made ³*umqombothi* to thank the ancestors. When *umqombothi* was ready, our parents showed their Ubuntu by inviting our neighbours to come and drink it together with them. They sang and danced and the bees left the house unharmed. I remember that one of the songs that was sung was: “*Ubonqonqoza xa ungena endlwini yam, ubothi molo xa ungena endlwini yama*” [You have to knock when you come to my house, you should greet when coming to my house] and we also joined in the singing and dancing.

I remember that as a child as one of my household chores I used to go to the forest with my mother to fetch firewood. This is called *ukutheza* in isiXhosa and a song associated with this indigenous practice says: “*Ndoda yam iyalinda soze ndotheza kwenye ilali*” [My husband has jealousy and I won’t go and fetch firewood in another village]. She would make a bundle of firewood (*inyanda*) for me and for herself. Like any curious child, I would complain and ask: “Why is my bundle of wood smaller than yours?” (*Kutheni nje incinci eyam inyanda?*). She would then calmly ask me to go and lift up her bundle of firewood (*hamba uyokuphakamisa leya yam inyanda*). I would try and lift it up and I would say it is heavy (*Iyhooo inzima*) - Experiential learning! She would then put a piece of cloth on top of my head and then put my bundle of firewood on top of the cloth and would do the same with hers. As we walked home, I would observe that she did not put her bundle of firewood in the middle but instead the part with thick firewood was closer to the head whereas the elongated part somewhat protruded. A wonderful fulcrum effect!

The trouble though started when we got home as she would start making fire in what we called *imbawula* using my firewood. *Imbawula* was made from a 10 litre drum and holes were made on the sides for ventilation purposes. When I complained why she used my firewood, she would tell me that we do not start the fire with logs but instead we start it with twigs – the surface area effect. When *imbawula* was ready, it would be placed in the middle of the room and we would sit around it so that we could get equal heat. Stories would be told. Indeed, human stories are great teachers, we learnt listening skills and how to tell stories. What a wonderful way to share knowledge! She would also cook traditional food for us such *imifino* (wild vegetables mixed with maize meal) using an iron pot. In the morning my mother would sprinkle some wood ash in the toilet because at that time we were using a bucket system. She would throw some of the remaining wood ash in our small garden and she told us that she learnt that from her mother in the rural village in Peddie where her umbilical cord was buried.

I have very little experience of that rural village as my mother wanted me to get education unlike my older brothers and sisters who had to look after cattle and goats and hence were deprived of education. Although I was able to get education, I might have missed out on many indigenous practices at the village. I remember when I visited my brothers used to milk the cows, pour milk into a bottle and then

³ *Umqombothi* is traditional alcoholic beverage made by many families in South Africa especially those who practice cultural rituals. Also, we do not brew *umqombothi* but we make it or do it. We make it for drinking it in celebrations and we do it for the ancestors.

put it under the cow manure in the kraal. I also used to enjoy eating the indigenous fruits such as *iingwenye*, *isiphingo*, *intsenge*, and *incumncum* in the forest. We also ate traditional food such as *ingxangxa*, *umxhaxha*, *uqhumatala*, *umvubo*, *umcuku* to mention a few. I still eat and enjoy some of this food. But I remember that boys were not allowed to eat *imifino* and we were told that we would be weak men. On the other hand, girls were not allowed to eat eggs (*amaqanda*) and it was said that they would be fertile. These food restrictions contradicted with my township life and I found myself living in two worlds.

Sadly, from primary school through to university, none of my experiences mentioned above were taken into consideration during teaching. This is an experience that I share with so many Africans (see e.g. Khupe, 2014). Yet, for me the forest and the home were schools. Instead, we were made to memorise or rote learn science concepts and regurgitate them during the examinations. Indeed, we memorised them and obtained good marks. We even perpetuated the status quo as we used to walk tall because we were labelled as bright learners. But we could not apply the science we memorised in our everyday lives (Gwekwerere, 2016). Even for essay writing, we used to be asked to write an essay on a journey by train yet we were never on a train. I often pondered, were we taught to be creative and innovative or to be good liars? On reflection, however, I was better off compared to other learners as my father used to tell us stories about trains.

However, I do not blame my school teachers, college lecturers and university professors. I have no reason to do so as they themselves were taught the way they taught us. I also regret that when I was a science teacher myself I did not take my learners' funds of knowledge and socio-cultural backgrounds into consideration so that science could be accessible and relevant to them (Gwekwerere, 2016; Mavuru & Ramnarain, 2020). That would have, according to Aikenhead and Jegede (1999) enabled them to cross borders from their homes to school science, but also to embrace and respect their cultural heritage. Scholars such as Cocks, Alexander and Dold (2012) and Smith (2012) refer to this phenomenon as cultural revitalisation. However, culture has not been a barrier for me. For instance, I challenged the cultural stereotypes by marrying a Sotho woman, Mokoena from Grahamstown. Both her father's and mother's side do practice cultural practices something that resulted in us being compatible with no contradictions. Before we got married, she used to like *amasi*. But when we married she was not allowed to eat before a cultural ritual was performed. But one day she craved for *amasi* to such an extent that she ended up stealing it, that is, from a cultural point of view eating it illegally. She had an aching stomach and confessed to me that she had drank *amasi*.

Looking back, I have also come to appreciate that much of what my parents taught us was teaching through doing and experiential learning, but also that some of the doing experiences were later to also become the source of my interest in the sciences embedded in traditional and everyday practices. On reflection, also, I have often pondered what might be the events and people that help explain my journey from the Fingo Village of that time, across the great economic, social, psychological and cultural divide to the university across the river.

For instance, as part of my courses, I collaborate with a local community elder, MaMngwevu, who teaches my university science students about the indigenous technology of making the traditional alcoholic beverage known as *umqombothi*. My aim is to take science from the community to the university by tapping into their cultural heritage with a view to indigenise and decolonise the science curriculum at a former English university in South Africa (Ogunniyi, 2018). Seehawer (2018) refers to this approach as bottom-up decolonisation. The indigenous technology of making *umqombothi* also affords my students to identify any science concepts embedded in the practice and thereby understanding there is dialogue between indigenous and westernised knowledges as reiterated by Seehawer and Breidlid (2021). This innovation has had a domino effect in that most of our students both in South

Africa and Namibia are doing their research projects on the integration of indigenous knowledge in science teaching.

2.2. Zukiswa's personal story

My clan name is MaMthembu and my umbilical cord was buried in the late 1970s, in a small town called Uitenhage in the Eastern Cape in South Africa. Unfortunately, I have never known that place as my home since my parents divorced when I was only 4 years old. Due to this, I was moved to my aunt's place in a small town that used to be called Grahamstown and was recently named Makhanda. This is where I did my pre-school years up to grade 2. Again, after sometime a decision was made that I should move to my grandmother's place where other grandchildren were staying. I moved to a village called Ndwayana in Peddie, in the Eastern Cape, not far from Makhanda and where life was totally different from a city life. For instance, there was no electricity then at that remote area.

Coming to the village as a young girl, growing up in such an environment was exciting but with lots of fun moments as well as some challenges. We were 11 grandchildren, six girls and five boys, my grandmother who played a parental role at my young age was an amazing woman whom in my view made sure that as her grandchildren we were all under one roof. My mother was working in the city and would visit from time to time. Being around 10 other children taught me much about Ubuntu and caring for others. Whenever clothes were bought we used to share them amongst ourselves regardless of gender. Moreover, our parents would buy clothes for all of us and not for their own individual children.

At that time, the village had two schools, a primary school and a secondary school. Notably, the two schools were known for their best performance compared to other schools in other villages in Peddie. I attended both the primary and the secondary school there in the village. The primary school was just 5 minutes away from my home. Almost every teacher knew my grandmother, and she was well-known for her strong character, and how she nurtured and mentored us as her grandchildren. Yet, she had very little education by the western standards. If a teacher reported any challenge about one of us, she would never take it lightly. We would need to explain our actions and if she saw the need; she would even add to the punishment.

At home, my grandmother, MaMngwevu was our mentor, our teacher and a parent at the same time. Though I was not aware of it then, but how I grew up had an impact on how I do and view things at a later stage in my life. My grandmother contributed to my being. She made sure we all learnt the various chores that in other homes could be seen as roles of different genders, but our village home there were no gender roles or responsibilities in household chores. We fetched water when needed and we fetched firewood as well. Fetching water from either the dam or the river, as younger ones we carried the smaller baskets, and when we went to fetch firewood as the younger ones we were always told to pick up the lighter firewood and dry shrubs that would be used to start fire.

Eating times were special. We used to have moments in which we shared a big bowl of dry pap mixed with *amasi* (*umvubo*), and during that time we also used to share a spoon so that we took turns to eat and to wait for each other. Similarly to Mthembu's experiences, boys were not allowed to eat *imifino* and we were told that they would be weak as men. On the other hand, girls were not allowed to eat eggs (*amaqanda*) and it was said that they would be fertile.

One could have never thought how powerful and educative such moments were. This taught us to respect each other, to care for one another and to share with one another. I also remember that our home was a home for everyone, people knew that if they came to ask for water; they would be offered *amasi* (sour milk) to drink and something to eat as well. My grandmother would even give away our own food.

As young ones in the family we also had turns to make tea for our grandmother and that was an opportunity to have a cup of tea. Otherwise as children, we were only allowed to have tea in the morning and making it for our grandmother was an opportunity for a second cup. We continue to reflect and laugh about those experiences even today. Coming from school, we needed to account to our grandmother. She would look at our books individually and monitoring our day's work. Whenever there was an 'x' you needed to account why you did not perform well for that specific day.

From my home experiences, I was always curious on how ashes from firewood were used as a cleaning agent for pots and for toilets. Additionally, as children when we started to have hair in our underarms; our grandmother did not allow us to use a roll-on. Instead, she used wood ashes; especially for smelling underarms. Also, the same wood ash was used for stomach aches and Kuhlane (2011) refers to this as prior everyday knowledge. That is, if there was no medication, a clean spoon of wood ash with lots of drinking water was the solution. The making of *amarhewu* and the making of *umqombothi* were other hands-on experiences which at my young age I never realised how these could be a powerful tools to teach science at school.

On another note, my grandmother, my mother and my aunt (both MaMiyas) were very interesting individuals who taught us to trust God and to pray all the time. What a contradiction in my world of life! For instance, my grandmother who used to cure people using traditional medicines, she was neither a *sangoma* nor a traditional healer, but she knew each traditional herb you could find in the village and they helped people. That was also true with my mother. On the other hand, however, my aunt was truly unique. For instance, for most of my life having been under her wing I was taught Christianity, nothing else but 'God' and she was anti-cultural practices. However, having to understand that I am young black African woman who is identified by the power of her clan names and her African roots, I had to ponder about the boundaries and where to stand in these two worlds – Christianity and indigenous knowledge.

When my family noticed that I was interested in science subjects, they suggested that after passing grade 10, I should move to the city where I did pure mathematics and physical science. The relevance of science or any subject to everyday life was never something I experienced at school. My teachers only focused and relied on the use of textbooks. Another contradiction in my life emerged when I married a husband coming from a family which is very strong in cultural practices. Given my aunt's past Christian influences, at times I felt uncomfortable with some of the cultural practices.

But it dawned to me when I started to teach Natural Sciences and engage in research that what learners come with to class should be valued and built on. This is where I observed the opportunities of teaching science using prior knowledge of learners from their homes. For example, in my Master's study I investigated the use of wood ash in teaching acids and bases to my learners. It is through my research that I extend this understanding of making my teaching relevant to my students' everyday life, the integrating indigenous knowledge is of paramount and necessary. One of my learners, similarly to uMthembu's story and experience highlighted above, used wood ash as a detergent in a bucket toilet system toilet for her science expo project and was awarded a gold medal and a Rhodes bursary. This shows the power of indigenous knowledge if it is appropriately integrated into teaching.

As a teacher educator, I now also foreground the use of IsiXhosa/home language (Ngcoza, 2019) and *storytelling* in making science accessible to learners (Iseke, 2013; Tzou et al., 2019). In an African culture, *storytelling* itself is a primary form of the oral tradition, primary as a mode of conveying culture, experience, and values and as a means of transmitting knowledge, wisdom, feelings, and attitudes in oral societies. For instance, elders together with their children would sit around the fire while sharing the stories with them. In this way, all children would be in the centre position to carefully listen to the elder while telling a story. At the same time, everyone would be able to feel the equal heat and warmth. Consequently, this manner of sharing stories promotes Ubuntu amongst the African families.

I believe that using *storytelling* to promote science learning allows young learners to develop an understanding of how science works and to make sense of the world around them. In my study of how Early Childhood teachers developed scientific process skills in young learners, I observed that one teacher created a comfortable environment in her learners through foregrounding her teaching by using storrtelling (Nhase, Okeke & Ugwuanyi, 2021). In most of her observed lessons her learners would surround her on the carpet while she introduced a lesson by sharing a story that would later build towards the content to be taught.

2.3. Sipho's personal story

My clan name is Jola from the *Mpondomise* kingdom and my umbilical cord was buried in a small township of Queenstown currently called Komani in the late 1960s and attended a primary school in that township. In our culture, people with the same clan name are not allowed to marry each other. Also, our clan names are associated with animals and we as Jola clan are associated with a snake which is called *MaJola*. This snake is not venomous, and it can visit the family anytime. It can also visit when the child is born or is sick and people believe that the child will be cured. When *MaJola* visits the homestead, it can be welcomed with traditional beverage (*umqombothi*) or pleadings so that it disappears because some people are afraid of it. We are not allowed to kill u*MaJola* but the truth is that I never saw it. This is not a surprise as cultural practices were not part of my upbringing because of my family's Christianity. For instance, some members and leaders of the Seventh Day Adventist church believe that anything that is traditional is unholy.

In contrast, however, some of my relatives who are not part of my church do traditional and cultural practices like *imbeleko* (a cultural practice where the elders slaughter a goat and take the skin, dry it and use it as blanket to cover the child). These contradictions between Christianity and cultural practices have put me in a tight corner. Because of my Christian mother, MaMgcina, I ended up following Christian principles only. I grew up in the extended family where I stayed with my parents, siblings, cousins, aunts, uncles, and my grandmother. My grandmother, MaMthembu was a general worker in one of the former model C schools and she used to bring us leftover food from work. We ate leftovers for supper and some before we went to school. After school, we used to play township games including indigenous games such as *icekwa*, *upuca* and searching and hiding games. There was no television in my home and we watched television in our neighbour's house. We had to pay ten cents to watch for the day.

During my school years, most of the times we learnt through rote learning rather than learning with understanding. Reference to the indigenous games we used to play as children was never made in school. I started school at the time when slates were used and there were no exercise books at that time. Slates helped us to learn every subject and we had to clean them in between the subjects, and we ended up succeeding at the end of the year regardless. As I was so playful at school, I ended up repeating standard 4 (grade 6) and I learnt my lesson after that I did not repeat a class again. My favourite subject at school was geography but in standard 8 (grade 10) I had to choose between geography and physical sciences. I chose physical sciences until I exited secondary school in 1991.

As a teacher, I taught mathematics and natural sciences science from 1996 to date. Similarly, to my schoolteachers, for many years I taught science without integrating local indigenous knowledges as it was not catered for in the South African curriculum and we just followed what was in the textbook. My enrolment at Rhodes University for Bachelor of Education (BEd) started to change things as I gradually started integrating indigenous knowledges in my science teaching. A great opportunity came in 2015, when a German/Norwegian researcher, Maren Seehawer,¹ came to Grahamstown (Makhanda) to facilitate a participatory action research study in schools (see Seehawer 2018, Seehawer & Breidlid, 2021). There were five science teachers involved as co-researchers in Maren's study, one of them being

me. We explored how we could integrate our learners' indigenous knowledges into our regular science classes. Thereby, we teachers would assign our learners to inquire about specific knowledges and practices in their homes and to present their findings in class. The aims were to ground our teaching in local epistemologies and to strengthen the traditional role of community in education. This project helped me to plan exemplar lessons that integrated my students' indigenous knowledges into my regular science classes and it triggered interest to take further studies in indigenous knowledges. During the implementation of the lessons we found that learners actively participated in the lessons (Sedlacek & Sedova, 2017).

From that day, I never turned back and in 2018 I enrolled for Masters in Education (MEd) with Rhodes University and in consultation with Mthembu I decided to go for science and to do a study in indigenous knowledges. I met caring and motivating supervisors as well as great a community of practice in which we shared everything that developed us academically and professionally. This community keeps me going forward and I adopted the slogan "backward never and forward ever". I have decided to take local indigenous knowledge studies all the way and am preparing to collaborate with colleagues locally, continentally and internationally. So far, I am working with colleagues from South Africa, Namibia, Zimbabwe and Germany/Norway.

I am currently teaching science in grades 5, 6 and 7 and am integrating local indigenous knowledge in science with a belief that they must co-exist (Ogunniyi & Hewson, 2008). As a teacher I have worked in three education districts of the Eastern Cape, starting in Queenstown (known as Chris Hani West), Grahamstown (known as Sarah Baartman) and I am currently in King William's Town (known as Amathole West) districts. I mostly learnt about indigenous knowledges in my hometown Queenstown, as the city is surrounded by rural areas where most people are the custodians of indigenous knowledges.

In 2010, I married a woman from the rural areas of Peddie, where many people are more rooted in cultural beliefs than in the peri-urban areas where I come from. Unlike me, my wife used to work hard in the fields to plant and harvest vegetables. In her home, traditional leafy vegetables called *imifino* are grown and even today my wife likes to prepare them for the family (Cimi, Ngcoza & Dold, 2020). My wife is also a member of the Seventh Day Adventist church, and we share the same religious beliefs. However, each time I visit my wife's home in Peddie, I socialise with the elders, who are always open to my questions.

It is against this background that I decided to a study using Grade 6 researching about cultural beliefs and practices about traditional foods such as *amasi*, *imifino*, *amaqanda* and *inyama* in a Grade 6 township class. Additionally, I also invited two expert community members who were both women to share their stories on these traditional foods. The presentations enabled my learners to argue and engage in lively discussions, something they were not accustomed to in the past. Also, some cultural stereotypes such as not questioning parents were challenged in the process resulting in the expert community members realised that their cultural heritage and wisdom was respected and has a place at school. Aikenhead and Jegede (1999) accentuate that when the science culture is consistent with learners' culture it will be meaningful to the learners. I try to make science meaningful to my learners by recognising their funds of knowledge.

3. Reflections On Our Narratives – Does It Matter Who We Are?

Concurring with Keane et al. (2016), we state that it matters who we are in research and that "[s]tories help us to bridge awkward divides, and to talk about who we are and where we come from" (p.16). In this regard, Chikamori, Tanimura and Ueno's (2019) advice is totake the *past* and *present* and focus to the *future*. What permeates throughout our three stories is that

Ubuntu was cultivated in various ways to us. For instance, emphasis was on sharing, respect and humble togetherness as we grew up as reiterated by Swanson (2009). Moreover, exposure to traditional foods and beverages played an important role in revitalising our culture and identity. Similarly, knowledge was selflessly passed on from elders to us through storytelling. Such indigenous way of sharing knowledge is currently central in our research projects that focus on the integration of indigenous knowledge (including home language) in science teaching. This is operationalised through tapping into the cultural heritage of elders or community members who are the custodians or repositories of such cultural heritage.

However, what is striking about the three stories is that, Jola's life was completely dominated and dictated by Christian beliefs, MaMthembu's was characterised by the mixture of the two worlds (cultural practices and Christianity) and Mthembu's was mainly characterised by cultural practices. Despite this, as well as the fact our socio-cultural backgrounds (Mavuru & Ramnarain, 2020) were not taken into consideration at school, we are determined and committed to engage in research in which we indigenise science in our teaching.

4. Concluding Remarks

It goes without saying that the above presented efforts to integrate local epistemologies and to ground our teaching in the local context are nothing more than small drops in the sea. What is needed is a comprehensive educational transformation that we envision as restoring Ubuntu as the basis of African education. Yet, we argue that no effort is too small to disrupt colonial reproductions in education and address learners' epistemological alienation in the classrooms. Strategies such as the presented examples can be decolonial in a bottom-up manner. Bottom-up decolonisation emphasises the agency of individuals and groups such as teachers, communities, parents, learners, elders, traditional healers, teacher educators and academics. These actors do not have the power to change education system from the top, but can enact actual change in small ways (Seehawer, 2018b). They can, in the words of Cameroonian thinker Achille Mbembe (2021), initiate 'small ruptures' which 'create myriad "tipping points" that may lead to deep alterations in the direction that both the continent and the planet take' (p. 10).

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Reflecting on Decoloniality and Justice in Latin American Seed System Transformations

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Over the last 20 years, Latin American ‘seed guardian networks’ have become increasingly influential in seed system transformations. This is a recent chapter in the decades old transition of seeds from deeply rooted commons to a global commodity, which constantly favours capitalist industrialism over all other ways of being. The emergence and consolidation of these networks is tied to the intensification of neoliberal reforms that undermine Indigenous, Afro-Latino, peasant, agroecological and organic agricultural practices. As part of this process, outliers connect in distributed networks to fight for the inclusion of their practices and visions, exerting pressure on hegemonic actors to transform national seed policies. This article sets out to argue that descriptions of contemporary seed systems as an overlap of antagonising ‘informal’ and ‘formal’ systems could be reviewed from a decolonial perspective. This can uncover profound differences on ways of being and knowing that raise important questions about justice. Reflecting on deliberate change of Latin American seed systems from a decolonial perspective may shed light on pathways to move towards a transmodern pluriverse. A road that requires systems change governance practitioners to engage more actively with peripheral alternatives, while critically interrogating our own role in the continuation of modernity/coloniality.

transformation; seed systems; justice; transmodern

1. Seed systems¹ in transition

Since the late 19th century, seeds have transitioned from being a deeply rooted commons and public good to an increasingly privatised commodity. This has been enabled by advances in plant breeding and

¹ “...The totality of processes that are part of the development, maintenance, production, storage and diffusion of cultivars.” (Wattnem, 2016)

genetics (Gutiérrez Escobar & Fitting, 2016; Senini, 2018; Wattnem, 2016), as well as an encroachment of intellectual property rights (IPR) over germplasm (Luby & Goldman, 2016). After the second world war, industrialisation of agriculture was accelerated in Europe to achieve food security in a time of high uncertainty (Gevers et al., 2019). The ‘green revolution’ that soon followed, established a global design of agricultural development for ‘third world nations’ based on extensive monocultures that needed ‘improved seeds’, sophisticated machinery and large amounts of agrichemicals (Felicien et al., 2016; Vidal & Escobar, 2019). Through these programmes, ‘developing countries’ were discouraged from investing in their local agricultural systems, privileging food aid over indigenous agriculture as a solution to famine and malnutrition (Rawlinson, 2021). Industrialisation of agriculture has certainly increased yield and quality for the few crops subjected to scientific intervention (Senini, 2018). However, there has been a simultaneous decay of genetic diversity leading to increased homogeneity of crops and reduced resilience (Gevers et al., 2019; Volkening, 2018). Furthermore, the increase in production promised by the ‘green revolution’ appears to have stagnated and has led to soil degradation and other environmental issues (Felicien et al., 2016).

The last 30 years have seen an increased financialization of food via agricultural derivatives (Gevers et al., 2019) and alarming levels of concentration in the seed industry (Felicien et al., 2016; Kloppenburg, 2014; Senini, 2018). According to some accounts, ten companies control around two-thirds of global proprietary seed (Wattnem, 2016). In recent years, the global seed market went from being dominated by six companies² (Volkening, 2018) to three: Bayer, Dow and ChemChina (Vidal & Escobar, 2019). This concentration is enabled by legislative framings of seeds as private property that privilege private breeder rights over all other system actors (Felicien et al., 2020) not only affecting small-hold farmers, but also public and small private plant breeders (Kloppenburg, 2014). As Gevers et al. (2019) point out, seed regulation responds more to a “collection of legislative packages” than to an individual source. These laws include IPR on plant material, plant breeder rights (PBR), phytosanitary and biosecurity norms, commercialisation and quality standards, and registration and certification schemes (Felicien et al., 2016; Gevers et al., 2019; Vidal & Escobar, 2019; Wattnem, 2016).

Regarding IPR, the ‘International Union for the Protection of New Varieties of Plants’ (UPOV) plays a pivotal role. This intergovernmental organisation was established by the ‘International Convention for the Protection of New Varieties of Plants’ in 1961, with revisions in 1972, 1978 and 1991. In this scheme, breeders can obtain IPR over plants in the form of plant variety rights (PVR) by fulfilling criteria of distinctiveness, uniformity, stability, and newness (DUS criteria). UPOV standardisation led to innovation in the sector but further marginalised peasant seeds (Gevers et al., 2019) and others, since it excludes many farmer bred or organic cultivars (Kloppenburg, 2014). Past versions of the UPOV convention allow some freedom to multiply and use seeds³. However, the 1991 convention grants breeders exclusive rights to protected varieties, effectively prohibiting seed exchange amongst farmers (Senini, 2018; Wattnem, 2016). UPOV now has 77 members, 17 states bound to the 1978 act, and 58 states and 2 organizations affiliated to the 1991 act⁴. Another important IPR tipping point came with the World Trade Organisation ‘Trade-Related Intellectual Property Rights (TRIPS) agreement’ implementing IP protection for plant varieties⁵ in 1994 (Senini, 2018).

These supranational agreements inform seed policy at a national level, generally promoting the standardization of seeds (García López et al., 2019). However, the multi-level nature of seed regulation

² Monsanto, DuPont, Syngenta, Bayer, Dow, and BASF.

³ The 1978 version allows the use of protected varieties by breeders and seed saving (the practice of keeping reproductive material to resow in future seasons) by farmers.

⁴ For a specific list visit: https://www.upov.int/edocs/pubdocs/en/upov_pub_437.pdf

⁵ A genetically modified plant can be patented because a technical process was used in its development.

leads to contradictions at the national level when responding to supranational level agreements⁶. One dimension of this issue is the tension between national sovereignty over genetic resources and supranational pressures to conform life forms to IPR standards (Wattnem, 2016). Additionally, these legislations clash with traditional community-based seed systems (Senini, 2018) eroding their capacity to save seeds for resowing and effectively diminishing farmer sovereignty over seeds (Kloppenburger, 2014; Wattnem, 2016). This has not only affected small-hold farmers but also public sector breeders, aiding the process of concentration by large scale transnational corporations (Kloppenburger, 2014).

The intensification of pro-industry seed legislation that undermines existing non-industrial practices has led to the emergence and consolidation of seed sovereignty social movements (SSSMs) in Latin America. Over the last two decades, SSSMs have become increasingly influential in the transformation of national seed systems. This article focuses on a limited number of 'seed guardian networks' (SGNs), which are part of SSSMs questioning existing power structures in global food systems. The following descriptions are constructed from grey literature and interviews of participants from SGNs operating in Colombia, Ecuador, Mexico, and Venezuela. It is preliminary data of ongoing PhD research by the author funded by the Australian Government's International Research Training Program Scholarship. SGNs include peasant, indigenous and Afro-Latino communities, 'neo-peasants'⁷, foreign and national NGO's, urban academics and professionals, amongst other actors. These networks defend the rights of peoples to produce, store, improve, exchange, and trade their seeds according to indigenous, Afro-descendant, peasant, agroecological and organic agricultural narratives-practices. They can be described as decentralised, place-based, trans-local coalitions of people and organisations committed to safeguarding landrace, native and creole seeds, and their associated practices of care. Narratively, SGNs participants understand seeds as the starting point of nourishment, but also as free, living entities that embody the origin and regeneration of existence. For them, humans have a deep relationship of nurturing and care with seeds, a connection that mobilises narratives of seeds as being part of family and community. Plural nurturing practices have led to a wide diversity of agricultural seeds influenced by generations of localised knowledge(s), experiences, cultures, and traditions. SGNs understand seeds as an intergenerational commons beyond government and corporate control, sometimes going as far as framing seeds as entities with agency and rights of their own.

On a practical level, SGNs connect communities, families and individuals that have taken upon themselves to protect landrace, creole, and native seeds. Participants engage in agricultural practices inextricably tied to indigenous, Afro-Latino and peasant identities, contemporary agroecology and organic agriculture, or hybrids between them. This is generally perceived by others as radical, which often makes participants feel like outliers even amongst their neighbours. Seed guardians (SGs) are widely diverse but engage in two common practices: Seed guardianship and seed exchange. (i) *Seed guardianship* relates to the conservation of seeds that are viable in a specific territory. These seeds are stored in a dedicated space which can be part of a family home or a small community building. These 'seed houses' or 'seed funds' are made with locally available materials and provide shade and cool temperatures for seed preservation. Seeds may be stored in upcycled glass jars, small plastic bags or clay pots vacuum sealed with wax. All containers are labelled with seed names and some SGs keep records of seed origin and other relevant data. Seed houses do not store static collections, SGs must constantly (re)sow seeds to regenerate them and preserve their vitality. (ii) *Exchange* can be done as a gift, through barter or commercialisation. SGs may gift seeds to neighbours or other communities interested in

⁶ For examples in the case of Ecuador see Gevers et al. (2019), and for Colombia see Gutiérrez Escobar & Fitting (2016), Vidal & Escobar (2019), and Silva Garzón & Gutiérrez Escobar (2020).

⁷ Urban residents who move to rural areas to create agroecological projects, changing their lifestyle towards a subsistence-based way of life.

growing different crops. They may also exchange seeds by bartering with other SGs or non-participant farmers that attend SGNs events. Finally, SGs sell their seeds to other interested parties which sometimes happens with the aid of SGNs databases of available seeds and their respective guardians. Contact also happens between individuals via social media or messaging apps widening the geographical scope of trade which leads SGs to mail their seeds over long distances. Seed exchange is very active but is not without risks; SGs mainly worry about contamination from industrialised or transgenic seeds, since there is no convenient way of determining the origin of a seed procured by a stranger and crossbreeding is highly likely. The other major perceived risk is the appropriation of landrace, native or creole seeds by corporate actors to use in private breeding programmes. SSSMs refer to this as 'biopiracy', the appropriation of 'informal system' seeds and the indigenous/traditional knowledge associated to them without the consent of peoples involved in seed development (Senini, 2018; Shiva, 2001; Vidal & Escobar, 2019).

SGNs meet virtually and physically to share knowledge about seeds, discuss the current state of seed systems, organise, and engage in collective action. The networks are fundamentally horizontal but are coordinated by small groups of committed participants aided by volunteers, often including urban professionals. These 'facilitators' organise working groups or workstreams that attend to different dimensions of their mission, including:

1. **Internal and external communication strategies.** This includes updating participant databases, organising virtual meetings, publishing virtually and physically on related topics (e.g., seed catalogues, books, reports, pamphlets, podcasts), developing consumer awareness campaigns, and managing internet presence with special emphasis on social media.
2. **Participant training.** This includes participant empowerment, gender equality training, knowledge sharing on seed production and improvement, seed house conditioning, commercialisation, public policy, legislation, agroecology, risks of transgenics, amongst others.
3. **Advocacy.** This includes the development of strategies to resist legislation that undermines non-hegemonic practices, participating in lawsuits and other legal options to transform current laws, and pushing for recognition of practices by governments (e.g., national corn day in Mexico or national peasant seed day in Venezuela)
4. **Research.** This includes the development of methodologies or programmes related to all other workstreams. Participatory seed improvement programmes and participatory guarantee systems for quality assurance are of special interest.
5. **Seed Guardian encounters.** These are periodical events where participants can get together to exchange knowledge and seeds. These events may be network specific encounters or attached to other agricultural sector or community events. Guardians may sell, exchange or barter seeds in these spaces.

SGNs simultaneously resist hegemonic narratives-practices and propose alternatives. These networks started as a response to the intensification of neoliberal policies that opened spaces for transnational corporations while curtailing possibilities for non-industrial practices. Initially, the activities of the networks were mostly directed towards resisting legislative changes and getting their voices heard. Over time, SGNs have been able to consolidate, effectively creating protected spaces for non-hegemonic seed practices. The amalgamation of Afro-Indo-peasant practices with agroecology and organic agriculture facilitated by SGNs, has led to a revitalisation of the non-hegemonic side of seed systems. This organisational process has enabled the emergence of an influential trans-local innovative space that increasingly participates in seed system transformation. This 'informal system' keeps up the pressure so that the sector recognises its non-hegemonic side while demanding accountability from governments to protect citizens and ultimately transcend corporate privileging. Despite being under constant threat

from both government and industry pressures, these spaces have connected otherwise isolated outliers. These networks have been able to open small cracks in hegemonic spaces despite a pervasive industrialist bias, often with the help of allies⁸ that leak documents, share insider information, or open spaces for social movement participation.

Afro-Indo-peasant agricultural practices have always been a part of Latin American food systems. In fact, over half of food in the region is produced by smallholders participating in ‘informal’ practices (Felicien et al., 2016; Wattnem, 2016). However, this side of the food system has been constantly marginalised, since it is perceived as an obstacle in the road to modernisation. In fact, food sector social movements are generally excluded from decision making in the region. Relevant governance spaces are almost exclusively composed by incumbents with an industrialist bias, be it representatives from government, academia, or industry. This has translated into a deep mistrust of the hegemonic side of the system, as non-hegemonic actors feel policies always benefit big transnational producers without thinking of impacts on other sector actors.

2. Beyond the ‘formal’ and ‘informal’

Scholars tend to distinguish between two seed systems, that may be defined in different ways but share similar contours (See Table 1). These systems are intertwined, often overlap, and constantly adapt to each other’s pressures. However, pressures are asymmetrical since growth of transnational seed corporations depends on the erosion of ‘informal seed systems’. Additionally, there is a state-level “agro-industrial bias” product of a perceived superiority of the ‘formal system’, supported by the aforementioned seed laws that continuously curtail possibilities for ‘informal systems’ (Felicien et al., 2016, 2020; Wattnem, 2016).

Table 1 Different denominations of seed systems.

Author	Name	Description
(Wattnem, 2016)	‘Formal’	Regulated scientific plant breeding with public and private participation.
	‘Informal’	Farmer-led unregulated or loosely regulated.
(Felicien et al., 2016)	‘Modern’	
	‘Traditional’	
(García López et al., 2019)	‘Industrial’	“...large-scale production and supply of commercial seed varieties” subject to “...strict quality control based on standard physical and physiological criteria.” (p. 829).
	‘Local’	Dependent on seed saving practices and trust-based community exchanges sustained by peasant, indigenous communities and small or medium-scale farmers.
(Bernstein, 2014)	‘Global capitalist agriculture’	Large-scale industrial farming.
	‘Peasant mode of production’	Small-scale customary farming.

⁸ These allies can be former participants of social movements who get a job in relevant government agencies, often as a consequence of left-leaning politicians gaining power.

Despite the overlap of these two systems, there are somewhat distinct seed types in each camp. Seeds are categorised in two groups: (i) Certified or improved seeds of the ‘formal system’; and (ii) Native, creole, landrace, heirloom, or local seeds of the ‘informal system’. Improved seeds are hybridised to acquire desirable traits and must be purchased seasonally to produce the same variety (Volkeneing, 2018). Farmers “license” the use of these seeds as part of a “rental agreement” of sorts that prohibits saving and reuse of germplasm (Kloppenburger, 2014; Luby & Goldman, 2016). Regarding the ‘informal system’, native seeds originate from the same place where they are sown. Creole seeds may not come from the same place but have been adapted by farmers to local conditions, including adapted certified seeds (Vidal & Escobar, 2019). A landrace or peasant variety has not been subjected to formal improvement but transformed by the traditional knowledge of peoples directly involved in growing it (Gevers et al., 2019). Finally, heirloom varieties have been historically saved and maintained over long periods of time by people (Volkeneing, 2018). A narrative has consolidated framing industrial or transgenic seeds as unique or improved while all others are understood as basic, conventional, or simply as raw genetic material (Shiva, 2001; Silva Garzon, 2019). Furthermore, seeds in the ‘informal system’ are considered uncertifiable, since they are associated with low quality and productivity, as well as spreading disease (Vidal & Escobar, 2019). These imaginaries seem to negate that collectively produced informal seeds have been necessary throughout history for all genetic improvement programs (Felicien et al., 2016). The ‘formal system’ has always been enabled by ‘informal system’ germplasm (Wattneim, 2016) often through ‘Biopiracy’, while farmers are simultaneously persecuted for ‘piracy’ by ‘formal system’ actors when they breach seed packet licenses (Kloppenburger, 2014).

In the case of India, Shiva (2001) sees two paradigms of biodiversity at play: One, a destructive genetic extractivism that disregards the needs of poor farmers; the other, recognition of life’s interdependence in its role supporting farmer’s livelihoods. In the case of Colombia, Vidal & Escobar (2019) see conflicts between two forms of understanding seeds: One where seeds become the capital of agribiotech industry and knowledge associated with their cultivation and preservation is privatized; and another where seed, territory and knowledge are woven to conceive and use seeds as a common good (Vidal & Escobar, 2019, p. 41). Effectively, Colombian SSSMs reject the notion of seeds as commodity or property, rather understanding them as “...living beings intimately related to humans and... [belonging] to specific agricultural systems.” (Gutiérrez Escobar & Fitting, 2016, p. 718). This article sets out to explore these contrasting systems as inextricably tied to the colonial process kickstarted in 1492. The often-opposing narratives and practices in the global seed sector emerge from profound differences in worldviews or *what is our reality (ontology) and how we know or understand what is (epistemology)*. Analysing Latin American seed sector transformations evidences the tensions between the modern and non-modern, diverging concepts of progress or what it means to live a good life. Furthermore, it raises questions about power, justice and what constitutes valid knowledge. It begs to move beyond ‘formal’ and ‘informal’ categories by exploring the profound differences of the ‘Global South(s)’ and the deep-seated assumptions naturalised by *coloniality*⁹, the

...complex and multidimensional legacy of divisive, exploitative, stratifying and hierarchical forms of power (e.g., Eurocentric/Western-centric hegemony), forms of knowledge (e.g., technoscientific instrumental rationality), forms of (inter)subjectivity (e.g., possessive individualism), forms of human interrelations (e.g., racism, classism, heteropatriarchalism, etc.), and forms of human dominion over land and mastery of “nature” (e.g., anthropocentric property/dominion/sovereignty) that have become entrenched and

⁹ Coloniality was conceptualised by Anibal Quijano and is used interchangeably with ‘coloniality of power’ and the ‘colonial matrix of power’.

continue to be reproduced throughout the world as an ongoing consequence of colonization. (Figueroa Helland & Lindgren, 2015, p. 432).

3. The Modernity/Coloniality continuum

For Latin-American decolonial option scholars, modernity is a "...set of self-serving narratives." (Mignolo & Walsh, 2020, p. 110). This story has told us that humans are superior to nature, that endless accumulation is possible through its subjugation, and that material growth equals progress (Figueroa Helland & Lindgren, 2015). This overarching myth of a standard of civilisation originated in Europe some 500 years ago when Iberic peoples invaded the land now called America. This event inaugurates modernity as the first known fully global world-system, which (despite constant attempts to conceal it) was colonial from the start (Quijano, 2014). The concept 'modernity/coloniality' emerges from the realisation of modernity and coloniality as indivisible. There is simply no modernity without colonialism and the continuation of the systems of power, management and control it constituted (Figueroa Helland & Lindgren, 2015; Mignolo & Walsh, 2020).

15th century colonialism ordered the world from a conception of European superiority, establishing first and foremost a racist and patriarchal heterarchical¹⁰ system. For Quijano (2014), there are two foundational *memes*¹¹ to the story of Euro-centred Modernity:

1. Human civilisation has a linear trajectory from the natural/primitive to Europe, making all non-Europeans pre-European and thus inferior.
2. The differences between Europe and non-Europe are of (racial) nature and not the result of a history of power.

Modernity/Coloniality and all its institutions were produced by the interaction with, domination and exploitation of non-Europeans (Grosfoguel, 2011). This was achieved through extraction of non-European cultural discoveries useful for the core, repression of knowledge production, and forcing the colonised to partially learn the dominant culture in order to reproduce domination (Quijano, 2014). This process led to a duality-based 'otherisation' that framed multiple peoples as an absolute deviant 'Other'. Throughout history, multiple attempts have been made to 'save' these inferiors: Be it by being forced to convert to Christianity, correcting their backwardness via a civilising mission, aligning with the developmentalist project, or being further homogenised by the globalisation of neoliberalism (Esteva, 2010; Grosfoguel, 2008, 2011; Mignolo, 2015).

No matter the strategy used, this has always been a project of Europeanisation (Quijano, 2014). Western Europe was understood as the protagonist and sole producer of modernity until the 20th century, when the U.S.A. positioned itself as the endpoint of linear history (Mignolo & Walsh, 2020). Whichever country is seen as the beacon of modernity, the Western cultural expansion was never solely "...economic and political but fundamentally epistemic" (Mignolo & Walsh, 2020, p. 137). It positioned "...all other cultures as primitive, pre-modern, traditional, and underdeveloped." (Dussel, 2012, p. 39), as living in an infantile stage of history. This civilising project may be described as the "...layered intersection of anthropocentric, androcentric, heterosexist, rationalist, Euro/Western-centric, modern/colonial, racialized, industrialist/developmentalist, capitalist, and ableist systems of power." (Figueroa Helland & Lindgren, 2015, p.438). Western knowledge created these systems by concealing its

¹⁰ A heterarchy refers to a system where elements are unranked or can be ranked in different ways.

¹¹ The basic units of stories, *memes* are the foundations of belief systems and perspectives within any given system that establish the relationships and behaviours within the system (Riedy, 2020; Waddock, 2015).

bodily and geographical epistemic location, assuming a “...universalistic, neutral, objective point of view” (Grosfoguel, 2011, p. 4). This has resulted in multiple asymmetrical core-periphery arrangements that have marginalised all those outside of these overlapping systems of power (Figueroa Helland & Lindgren, 2015; Mignolo, 2015). These peripheral ‘Others’ are the ‘Global South(s)’, a concept which signals onto-epistemic difference¹² rather than geographical.

These systems of power did not stop with the end of colonial rule (Grosfoguel, 2008; Mignolo & Walsh, 2020) and are still perpetuated not only by the core but by the westernised elites of postcolonial countries (Figueroa Helland & Lindgren, 2015). This is tied to the reinvigoration of Modernity/coloniality as Development, the discourse which defines most of humanity as ‘underdeveloped’. It emerged after World War II as Western Europe and its colonial administrations were in crisis. It was at this moment that the U.S.A. positioned itself and other industrialised nations at the apex (Misoczky, 2011; Sachs, 2010). Post-development (PD) scholars describe the ideology of development as a way to keep postcolonial countries from joining the communist system and affiliate to the capitalist logic of market privileging and perpetual accumulation; thus maintaining the international division of labour borne by modernity/coloniality (Ziai, 2017). This perpetuates the unilinear understanding of history with industrialism as its “inevitable destiny” while excluding all other forms of social life (Esteva, 2010). The discourse of development, now understood as a scientific form of knowledge (Grosfoguel, 2011) has become so diluted and naturalised as a force of social change that appears to be unquestionable (Ziai, 2017). This technocratic and managerialist intervention in the lives of the planet’s majority, perpetuates the hierarchisation of knowledge(s) produced by coloniality (Misoczky, 2011; Ziai, 2017). It sustains the idea of deviance from an universal Eurocentric norm (Ziai, 2017) and the globalisation of Westernization (Sachs, 2010). As such, the Development model is also a “...mental, cultural and historical construct that has colonized the...world” (Beling et al., 2018, p. 305).

The ‘colonial matrix of power’ (the invisible side of modernity) can be framed as the origin of the multiple global crises we presently face (Figueroa Helland & Lindgren, 2015). The ecological impacts, inequality and cultural homogenisation produced by the ‘developed’ way of life proposed by this model of civilization cannot be ignored (Sachs, 2010; Ziai, 2017). Postmodernity has been unable to transcend coloniality since it continues the universalising mission of Western being, by ignoring the metanarratives of the non-modern¹³ (Mignolo & Walsh, 2020). Additionally, interculturality as horizontal dialogue may be impossible in postmodernity since relations of difference are still asymmetrical and ‘otherness’ is only allowed access, or is integrated to *the* frame of reference (Añazco, 2019). However, there are other options; as Dussel (2012) points out, the “enlightened hegemony” of modernity/coloniality has only lasted for little more than two centuries. This timeframe has been insufficient to eliminate or fundamentally transform all ‘othered’ cultures which have survived in the peripheries. The resurgence of the ‘non-modern’ exemplified by seed guardian networks, raises questions regarding intercultural dialogue and epistemic justice. These two key elements are critical for transformations towards fair and sustainable seed systems.

4. Towards Fairer Latin American Seed Systems

Latin American seed systems are complex, they touch upon many dimensions (political, economic, socio-technical, cultural...etc.), involve multiple actors with diverging worldviews and futural visions, and emerge from interactions at multiple levels and geographic scales. The complexity of seed systems calls

¹² Differences in ways of being and knowing.

¹³ Non-modern denotes the “...coexistence of temporalities and modes of living and thinking that are neither premodern nor postmodern.” (Mignolo & Walsh, 2020, p. 117).

for: (i) a structural focus on justice, and (ii) tapping into multiple intersecting conceptualisations of justice. Structures are dynamic “...forms of organization that produce social positions and roles, channelling action, and...circumscribing the possibilities that are open to, accessible by, or closed for people.” (Gilson & Kenehan, 2021, p. 10). Structural injustices emerge when these processes increase the power and opportunities for a group while limiting opportunities to exercise capacities for other large groups (Kortetmäki, 2021; McGregor, 2021). These injustices unfold from the convergence of actions by multiple actors pursuing their goals in line with specific social-structural processes; meaning that no particular actor can be blamed for them (Gilson & Kenehan, 2021).

Food systems are intersected at multiple levels by diverse issues of justice: The availability and access to healthy and culturally appropriate food, participation in decision-making, and the connection between food and other social justice issues (*Food Justice*) (Gilson & Kenehan, 2021). The differential impacts of industry on marginalised communities and their exclusion from decision-making (*Environmental Justice*) (McGregor, 2021). And the unequal distribution of impacts from climate change and related policies (*Climate Justice*) (Kortetmäki, 2021). Rawlinson (2021) has drawn attention to our situatedness within transgenerational relations and its ethical implications. In line with this, *intergenerational justice* should be taken into account to allow a flourishing existence for future generations (Robaey and Timmermann, 2021). Gilson & Kenehan (2021) emphasise the need for *ecological justice*, which is concerned with broader relationships between humans and non-humans focusing on power and equity; or in the context of this article, to transform relationship patterns established by coloniality. In all previous instances participation is of great importance; *participative justice* deals with the right to participate in decision-making (McGregor, 2021) and may be the first step to amend disparities in food systems (Loo, 2021). This form of justice should balance the need to recognise autonomy and difference while treating all participants similarly (Loo, 2021). Throughout history, marginalised peoples have been excluded from policy-making processes and have often been subjected to the harm of misrecognition by being homogenised as ‘universal persons’ (McGregor, 2021). This is why autonomy and recognition of difference are so important, without them, pressures over marginalised communities may become invisible and perpetuate dominance under the guise of impartiality (Loo, 2021). At the intersection of all these dimensions of justice, a more comprehensive understanding of food justice emerges as the:

...adequate supply of and access to decent food but also community autonomy and self-determination and thus community control over their own food resources and practices...food is not merely instrumental in sustaining biological life and health but rather is integral to social and cultural life. As a matter of systems, food is linked not only to ecological systems...but to sociocultural ones, to people’s history and identities. (Gilson & Kenehan, 2021, p. 13).

Taking into consideration these conceptualisations of justice, it could be argued that ‘informal’ seed systems are being treated unfairly. Harms include but are not limited to: (i) Misrecognition of ‘informal system’ actors as backward Others, (ii) unwillingness of governments to involve them in policymaking, (iii) pressures to modernise via pro-industry¹⁴ legislation that erodes their narratives-practices, and (iv) the intergenerational environmental impacts of the industrial model, as well as the curtailment of futural possibilities for young farmers product of industrialisation. Transitioning towards fairer seed systems in Latin America and the world necessarily requires correcting these harms. System actors must not lose sight of the “...wide variety of social constructs and forms of oppression [that] work together to create food and environmental injustices.” (Szende, 2021, p. 83). This article has argued that these injustices stem from the structures of coloniality and the permanent tensions between (post)modern and non-modern worldviews. As McGregor (2021) points out, these harms occur in social structures and

¹⁴ Read as Modern/Colonial.

institutional contexts that include epistemic injustices and epistemologies of ignorance. Coloniality was made possible by an epistemic strategy of concealment of the subject of enunciation, which resulted in a hierarchy of superior and inferior knowledge. All knowledges are located in the core-periphery arrangements of modernity/coloniality where the West's superiority encourages a deafness to non-western epistemologies (Grosfoguel, 2008). This is evidenced in the conceived superiority of science and technological intervention over local knowledges regarding food systems (Rawlinson, 2021), which often translates into epistemic impositions over the 'informal system' instead of encouraging horizontal collaborations.

Correcting the harms caused by epistemic asymmetries implies transcending coloniality, at the same time, moving towards epistemic justice is an integral part of decolonising. Decoloniality is a contextual, relational, practice-based lived praxis that mobilises power "...within the colonial matrix to undermine the mechanism that keeps it in place requiring obeisance" (Mignolo & Walsh, 2020, p. 114). This includes the critical and material deconstruction of structures to allow for alternatives (Figuerola Helland & Lindgren, 2015), while making visible positionalities that unsettle the hegemony of Western rationality (Mignolo & Walsh, 2020). Decoloniality is contextual but really occurs in the non-geographical borders of the power differential of modernity/coloniality by engaging in critical 'border thinking' (Mignolo, 2015). This is not equal to 'identity politics' or an anti-modern fundamentalism, but rather, an epistemic response to Eurocentric modernity to redefine and transcend "the emancipatory rhetoric of modernity" from the peripheries configured by colonial difference (Grosfoguel, 2011). As such, it does not aim to replace one universal truth with another, but to encourage complementary reciprocity between diversity towards a pluriverse of knowledges and practices (Escobar, 2018; Figuerola Helland & Lindgren, 2015). Putting diversity in equitable but still conflictive relations necessarily requires interculturality, a "...permanent and active process of negotiation and interrelation in which difference does not disappear" (Mignolo & Walsh, 2020, p. 59).

5. Conclusion

In most 'developing countries' and specifically in Latin America, more than half of food and seeds are produced by small scale peasant farmers. However, this non-modern regime is seldomly considered in the sector's decision-making processes. 'Informal system' actors are often concealed, and their practices-narratives ridiculed as an enduring primitivist obstacle on the road towards modernisation. Over the last 20 years, seed guardian networks (SGNs) have become increasingly influential at a national and regional level. While the process of seed system transition and their role in it requires more research, this case shows the importance of trans-local networks of outliers, and their alternative non-modern practices and visions. Participants of SGNs may not frame their struggles for epistemic justice as decolonial, but they certainly are; they engage in a decolonial epistemic reconstitution by resisting & re-existing, while building towards an otherwise (Mignolo & Walsh, 2020).

Despite their increasing influence in national seed systems, these 'informal systems' are under constant pressure by the core of modernity/coloniality via multiple strategies (e.g., multi-level seed legislative packages that nearly outlaw ancestral seed practices). Hopefully, Latin American seed systems will move from a concealment of the non-modern to a mosaic epistemology (where separate knowledge systems coexist with their own claims to validity), and towards a solidarity-based epistemology, where mutual education and critique between knowledges is emphasised while prioritising those least advantaged¹⁵

¹⁵ The most representative case is unfolding in Venezuela where the 2018 seed law recognised the two systems and equated indigenous knowledge to scientific knowledge in an effort to promote horizontal dialogues (Ley de Semillas 2018).

(Connell, 2018). Efforts by SGNs may soon transform the underlying systems of power of modernity/coloniality as expressed in seed systems. The organisational processes of these networks and their interactions with coloniality's core, signal the possibility of a critical dialogue with otherness. This is the moment of Transmodernity, where non-modern and (post)modern worldviews co-exist and engage in dialogue, agonism and antagonism to bring forth futures. Transmodernity is a futural project that pursues a culture that assumes the best of modernity to produce a pluriversal utopia through authentic intercultural dialogue without presupposing symmetry between difference (Dussel, 2012). It is a "radical universal decolonial anti-systemic diversity" (Grosfoguel, 2011, p. 31), a project of liberation that goes beyond Eurocentric and Third World fundamentalisms by respecting diversity in the struggles against modernity/coloniality (Grosfoguel, 2011).

The transmodern utopia raises difficult questions regarding justice. These issues always result in winners and losers, making it nearly impossible to identify a single just outcome attending to all interests in a given system (Loo, 2021). Moving towards a just and sustainable future for all necessarily entails transcending modernity/coloniality so that more relational ways of being can thrive. Practitioners and scholars of transformation have a responsibility to reflect on the continuation of coloniality, Western unilinear time and Eurocentric totalising claims. Transformation governance would benefit greatly from more active engagements with emergent research areas like: decolonial theories; studies on alternatives to development; deep transitions/civilizational transitions; and conviviality, relationality and pluriverse (Rivera Cusicanqui et al., 2016, p. 11). Whichever transformation process, system, or theory of change is being observed or deployed; participants should ask: (i) How is the 'colonial matrix of power' manifesting here? (ii) Are there non-modern actors, communities, or networks in the peripheries of the system? (iii) What are the narratives, practices and futural visions present in the system (emphasis on concealed ones)? (iv) Are there epistemic injustices occurring in the system? If so, where? and (v) How can we facilitate creative dialogue/agonism between diversity beyond existing power structures? Transmodern transition pathways are emerging all around us, offering exciting possibilities to bring forth plural just and sustainable futures. Engaging with these spaces in practice and research

6. References

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