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# Reconsidering Power and Place in Systemic Design: Strategies for scaling scree and scaling deep

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Systemic design practitioners, educators, and researchers are calling for design strategies that seek to scale systems change efforts through more participatory and transdisciplinary design and assessment practices. This paper responds to this call through a case study analysis of the Power and Place Collaborative. The Collaborative is a community-first, equity-centred, emergent, and situated educational approach to designing complex social systems change. Beginning in 2018 and formalised in the summer of 2020, the Collaborative has worked to catalyse, sustain, and scale social change through emergent design interventions that began with the recording, preserving, and presenting untold stories from across the local community. Initial collaborative efforts have led to community oral histories and digital stories, new cross-institutional programs and curricula, visual and multimedia mapping, public screenings, community, government, and educational workshops, art exhibits, walking tours, community dialogues, social media campaigns, open access, online archival platforms, and more. The design of this collaborative, its practices, and some initial mixed methods research findings are documented, highlighting the value of emergent, community-first transdisciplinary practices and relational, place-based immersion for fostering systems changes that scale deep and scree.

Keywords: scree-scaling, deep-scaling, power and place, place-based education, transdisciplinarity, participatory design, community-first

RSD: Cases & Practice, Methods & Methodology, Learning & Education

### Introduction

This case study offers strategies for systemic design practitioners, educators, and researchers interested in moving beyond traditional frameworks for scaling systems change efforts. In particular, the paper explores a participatory and transdisciplinary approach to systemic design practice and education emerging from the Power and Place Collaborative. The Collaborative is a community-first (Kepkiewicz & Levkoe, 2018), equity-centred (Costanza-Chock, 2020; Rittner, 2020), emergent, and situated educational approach to designing complex social systems change; a case study analysis of its efforts offers strategies for scaling deep and scaling scree (Tulloch, 2018).<sup>1</sup>

The paper begins by situating the need for systemic design efforts that value and assess a more situated, relational, and emergent approach to systems change. This approach to social design is then linked to recent research on the value of scaling deep and scree. With these frameworks in mind, I then assess the efforts of the Power and Place Collaborative, examining its design, practices, and initial outcomes. This case study analysis highlights the potential value of emergent, community-first, transdisciplinary pedagogies and relational, place-based immersion for systemic design practitioners, educators, and researchers.

<sup>&</sup>lt;sup>1</sup> In contrast to dominant approaches to systemic change that value scaling-up and -out, scree-scaling seeks to create opportunities for diverse, situated "tiny" design interventions (Tulloch, 2018), and scaling-deep encourages the design of interventions that cultivate relationships across differences, transform mental models, and reshape cultural habits (Riddell & Moore, 2015).

## Participatory systemic design: opportunities for scaling scree and scaling deep

Systemic design efforts can and have reframed short-sighted, narrowly-framed design interventions that exacerbate social injustice (Jones & van Ael, 2022; Monteiro, 2019; Vink, 2021). However, its historical emergence from, and sustained commitments to, institutions of higher education, large governmental organisations, and granting agencies have forestalled and problematised efforts towards engaging more directly in and with communities (Murphy, 2018). As many have noted, systemic design can and should do more to take into account the situated embodiment of diverse communities, their complex histories, and the long-term potential outcomes of their design interventions (Escobar, 2017; Monteiro, 2019; Vink, 2021). Given the field's commitment to cocreation (Banathy, 1996; Bijl-Brouwer & Malcolm, 2020; Jones, 2019; Jones & Kijima, 2019), as well as the need to collaboratively address large-scale wicked problems (Rittel & Webber, 1969), this lack of engagement with and critical assessment of emergent and participatory design processes is problematic.

At the same time, design practitioners and researchers also emphasise the need to shift away from a focus on scaling up and out towards scaling deep (Riddell & Moore, 2015) and scree (Tulloch, 2018). Where scaling out can encourage a capitalist and colonial replication of design interventions under the guise of reaching greater numbers, deep and scree scaling offer opportunities to enact and assess systemic design practices cultivated in and with communities over time. Building on the work of Riddell and Moore (2015) and Buckenmayer et al. (2021), for instance, argues that we must explore the value of scaling deep if we are to shift cultural values, mindsets, and beliefs. When scaling deep, the goal is to cultivate "fruitful friction" across differences and thus support personal transformation (over time, also supporting social transformation). Whereas efforts to scale up and out are likely to leverage undue force, scaling deep resists "forcing perspectives onto someone." This form of scaling requires the friction of conflicting points of view and the exploration of alignment across differences.

Tulloch (2018) further extends prior notions of scale, arguing systemic designers should also design for, enact, and assess designs intended to scale scree. These designs would leverage the possibilities of cultivating systems change through many small interventions over time. Designs that scale scree both emerge from and respond to the unique complexities of the place and moment. They also "supply the larger system with a pluralistic menu of creative approaches, "put pressure on that system to be able to... support them and over time "shift cultural norms and expectations because there are a lot more agents driving new visions" (Tulloch, 2018, para. 8). Efforts to scale scree value pluralistic, situated, and emergent ways of being and doing and thus shift focus away from efforts to replicate from the outside and work "on" others.

Deep and scree scaling offer a framework for assessing and articulating the value of emergent and participatory design processes. A commitment to these forms of scale can also help to reduce the possibilities of harm caused through efforts to scale up and out. Visualising the value of deep and scree scaling, however, can be challenging. "Scaling out and scaling up" are tempting partly because they "happen at the surface." They are "visible and tangible" (Buckenmayer et al., 2021, p. 1). Scaling deep is "intangible, invisible and hard to grasp" (1), while efforts to scale scree can be incredibly hard to track within complex, emergent systems.

This paper seeks to build upon these emergent threads within the field of systemic design by analysing an emergent and participatory design process through the lens of deep and scree scaling. Summarised next, the Power and Place Collaborative offers a potential model, a set of strategies, and an assessment framework for exploring the potential of systemic design educational efforts that seek participatory and situated complex systems change through scaling scree and deep.

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# The Power and Place Collaborative: strategies for systemic designs that seek to scale-scree and scale-deep

#### Scaling-scree through emergent, community-first transdisciplinary designs

The Power and Place Collaborative began with a commitment to cultivate opportunities for examining the power-laden processes of place production across one county in the Southern United States and catalyse participatory practices of community co-creation. Beginning in 2018 and formalised in the summer of 2020, the collaborative includes our county's African-American Cultural Arts and History Center, Community Center, the Center for Design Thinking, and courses from across the university (including introductory and advanced undergraduate and graduate courses from history and geography, human service studies, strategic communications,<sup>2</sup> art administration<sup>3</sup> and art history, media studies, education and honours).

The Collaborative's participatory design efforts emerged through a commitment to support community-identified goals to record, preserve, and present untold stories that centre narratives from the African American community across the county. Thus far, few histories about this region of the United States have been gathered or publicly shared.

<sup>&</sup>lt;sup>2</sup> During the fall semester (2021), graduate students in the media design program created posters designed to visualise the historical stories of African Americans living in the County. The posters integrated traditional graphic design strategies with the related discipline of information design, where data and information graphics are important features used to tell stories. The topics that the students focused on included the history of African American education; the significant history of local activists; specific neighbourhoods in the area, and the race riots of 1969.

<sup>&</sup>lt;sup>3</sup> An Art Administration Senior Seminar partnered with African American Cultural Arts & History Center to complete a consulting project integrating equity-centered design thinking and leadership theories. They created a consulting report and a AACAHC board handbook to support board governance, educate board members about organisational responsibilities, and offer resources they can use immediately for their board meetings.

With a commitment to participatory knowledge production practices, initial storytelling efforts began through the collection of oral histories. The creation of these oral histories supported efforts to scale scree through building relationships across differences by creating space for sustained connections in the community.

The Collaborative has consistently and intentionally included storytellers from education, government, nonprofit, and business worlds and interviewed local entrepreneurs, governmental officials, activists, artists, nonprofit leaders, recreation and parks staff, emergency workers, and educators. To cultivate many small moments of disruption and connection (i.e., to scale scree), the Collaborative also partnered students and storytellers to cocreate short digital stories,<sup>4</sup> posters for community organisations, social media campaigns, public screenings, educational workshops with high school and college students, walking tours of the area, and community dialogues.

These events and materials have recruited additional course and community design projects, helping to create critical mass within our campus/community partnership and sparking several spin-offs and synergistic initiatives, including

- Intergenerational dialogues
- Social media campaigns across the county
- Community, government, and educational screenings and workshops
- Art exhibits
- Walking tours
- Book clubs
- An open access virtual archive of materials

<sup>&</sup>lt;sup>4</sup> While the full interviews have been archived for posterity, the digital stories were produced to foster opportunities to scale scree (i.e., for a broader audience to access online, in museum digital displays, and through community screenings). In 2021, these stories were shared in a final event with over 120 faculty, staff, students, administrators, and community members. The size and success of the event, and the high quality of the digital stories screened and discussion elicited, represents a new level of achievement in an ongoing process of relationship building and community learning that participating faculty and project partners have invested in since 2018. With this third iteration of the course project, students have conducted over 30 oral history interviews and produced a like number of digital stories.

- Five additional course partnerships launched from the Media, Art History English, Core Curriculum, and Design programs
- Student internships and community service projects
- Support for two other campus/community oral history projects, one documenting the history of the predominantly Black First Baptist Church, and the other aimed at documenting memories of the predominantly Black community in an adjoining neighbourhood
- An evolving Collaborative Community Agreement with additional faculty members and expanded community goals
- The continued (IRB approved) longitudinal, mixed-methods study assessing the value of this pedagogy

With the emergence of a diverse array of alternative social designs, one year into this partnership the African American History and Cultural Arts Center has been able to broaden their public engagement through a new physical location, as well as a revamped website and new social media channels.

From its inception, the Collaborative also intentionally invited storytellers and students to stay connected by taking on various roles that align with their passions and skill sets. Thus far, a number of students and community members have chosen to remain involved as community liaisons (conducting outreach to local businesses, community organisations, and schools), storytelling mentors (sharing their experience and advice with upcoming storytellers and interviewers), workshop leaders, social media interns, teaching assistants and more.

Tracking and assessing scree scaling can be particularly challenging since it relies upon emergent, transdisciplinary, and cross-institutional initiatives across diverse stakeholders. In response to this challenge, the Collaborative has been harnessing a number of participatory action practices and longitudinal mixed-methods assessment strategies. I detail these next.

#### What are we learning? Mixed methods longitudinal assessment

This approach to complex systems change aligns with research in organisational theory and higher education, indicating inclusive and equitable innovation requires a range of flexible, transdisciplinary strategies and tactics (Kania, Kramer, & Senge, 2018; Klein, 2019). However, research on how to cultivate (i.e., sustain and scale) this form of change is still fairly nascent (Mahajan, Glew, Ryan, 2022; Jones, 2019), especially within higher education (Kezar, 2018). Given the very recent efforts to encourage systemic designers to focus efforts on scaling deep and scree, there is also a need to study and analyse the value and challenges of this approach. Thus, while the Collaborative is still new, it is a part of a mixed-methods longitudinal study designed to assess its approach to deep and scree scaling. In particular, our assessment efforts thus far have sought to understand:

- How the Power and Place Collaborative generates knowledge networks connecting students, instructors, and community partners across multiple locales
- 2. How the Collaborative's various initiatives support opportunities for deep and scree scaling
- 3. If and how these initiatives build capacities for creative, relational, place-based design

The study combines ethnographic participant observational analysis with document review, pre- and post-project surveys administered across the initiative, and semi-structured interviews/focus groups conducted via university-approved software (i.e., Zoom).

This multi-method approach combines quantitative and qualitative methods. In order to compare findings to other educational initiatives, we have been using the online Global Engagement Survey (GES) at the start and end of each semester. The survey allows us to investigate how these participatory design processes influence awareness of local and global engagement over time and compare our findings to those of others.<sup>5</sup> They

<sup>&</sup>lt;sup>5</sup> The GES is a standardised survey administered by a non-profit consortium of Higher Education institutions. The surveys are completed online (via email invitation) to students enrolled in the participating courses.

include Likert-scale and open-ended questions at both pre and post-test administration. In addition, researchers included participant observation and project assessment in their analysis, analysing written reflections, student assignments, design sessions, and discussions.

Over the next two years, the research team will complete focus groups and semi-structured interviews with participants designed to track how these efforts have influenced mental models, built relationships, and shaped subsequent pathways through the community. Questions will ask about how their experiences informed their subsequent civic, scholarly, professional and personal goals, reshaped their sense of place, and what skills they developed.

While the Collaborative has only existed for three years, survey analysis, initial document review, and observational data have reinforced the merit of this approach for scaling scree and, as I show next, indicate that such efforts seem to support deep scaling.

#### Scaling deep through relational, place-based immersion

The collaborative interviewing and digital storytelling process, combined with walking tours of diverse places in the region, created opportunities for community members, faculty, centre directors, and students to enter into relationships with and contribute to this place and its communities. Place mental mapping helped students frame their sense of place over time, visualising transformations in their sense of place, community, and identity as they engaged in walking tours with local historians and city planners, alongside conversations with governmental leaders and community members.

For instance, in the fall of 2021, partners held a community storyteller meet and greet that brought together former storytellers, student leaders, faculty, and community centre directors with new storytellers. This event was followed by four walking tours across divergent locations in the community that juxtaposed the local downtown, "Black Bottoms," university campus, and an adjacent downtown hub nationally renowned as a

contested site. These moments created places for potential fruitful friction between conflicting points of view and the exploration of alignment across differences.<sup>6</sup>

Initial findings indicate that these efforts may be leading to deep scaling for storytellers, students, faculty, and community partners, shifting cultural values, mindsets, and beliefs. The analysis of community surveys, student-written reflections, informal storyteller feedback, and our observations have consistently shown a growing appreciation for relational design efforts and the role community-led oral history can play in participatory place-making efforts. In a final reflection, one student wrote that this project "allowed me to not only learn about the history of the county but really understand that systemic oppression shaped the way that the county functions as a community today."

Another student wrote that they particularly valued breaking "the narrative of discussing Black geographies as placeless." It was essential that these stories did not attempt to present placed narratives within a "context of suppression and loss," and instead engaged "big thematic questions about race and the County" while "celebrating the lives" of others. This relational and narrative approach to systemic change created opportunities for learning about and engaging with communities at the local scale but also for thinking critically about broader-scale issues of racial justice. In alignment with Buckenmayer et al.'s recommendations, it seeks to support deep scaling as both an internal and social process that changes "relationships and cultural roots" (p. 5) and "builds trust for productive long-term collaborations" (p. 6). Another way the Collaborative has sought to do this is by moving beyond individual, semester-bound course projects towards course-linked codesign projects.

<sup>&</sup>lt;sup>6</sup> Enacting systems design commitment to not address issues in isolation, translocal learning was fostered through engagement with guest speakers, both from the surrounding region and further afield, who shared insights from place-making initiatives in their own communities.

These narratives and student responses indicate that this form of learning can foster systems designers that "think in systems, yet speak in stories. Someone who can ... capture the ideas of the contributors with empathy ... while working with mixed stakeholder teams on mapping the details of system interactions" (Jones & van Ael, 2022, p. 17).

# Conclusion: radical and pragmatic? incremental and paradigm-shifting?

#### **Radical yet pragmatic**

While only in its third year, the Collaborative is aiming to enact recommendations from scholar-activists across numerous fields that suggest energy be shifted towards social design practices that map the complexities and require inclusive processes of making, testing, and remaking (Diethelm, 2016; Dixon, 2020; Logue, 2020; Vink et al., 2021).<sup>7</sup> It is pursuing this approach to participatory design by beginning with critically situating ourselves and community members within historical and geographic complexities. From these relational explorations, it is seeking to prompt opportunities to reflexively remake external and internal structures across diverse relationships (Bailey et al., 2021; Tonkinwise, 2019).

In its first three years, the Collaborative's efforts show these forms of systemic design can scale deep and scree; they can build relationships, transform mental models, and provide diverse communities with opportunities to cocreate responses to unique situations (Ansari, 2016; Costanza-Chock, 2020; Duan et al., 2020; Fry, 2017; Vink, 2021). In addition, the Collaborative's approach to research can help to trace and map how various designs scale deep and scree (Tulloch, 2018). It can also bolster efforts to resist colonising and capitalist tendencies towards scaling up and out. Coombes, Johnson, and Howitt (2014), for instance, warn against the desire for an impact agenda that outweighs

<sup>&</sup>lt;sup>7</sup> Indeed, across design fields, we see movement towards more liberatory, equity-centred, and systems-aware design practices (Banathy, 1996; Culver et al., 2021; Creative Reaction Lab, 2018; Costanza-Chock, 2020; Escobar, 2017; Vink, 2021).

a commitment to the authentic needs of local populations (in their case, Indigenous peoples), with the (perhaps) unintended consequence of replicating colonising practices (p. 847). It offers an alternative model to teaching, research, and service conventions that privilege tendencies towards academic expertise, grant guidelines, disciplinary silos, and institutional boundaries (Hartmann, 2020; Paperson, 2017). It is emergent, community-first, and transdisciplinary. It is also counter-cultural to dominant paradigms within the academy. It requires educators to step "outside the castle-like infrastructure of higher education" to generate actionable knowledge with people across sectors (Lake & Thompson, 2018, p. 26).

#### Incremental yet paradigm-shifting

What is systemic design intended to "do"? From within the discipline, the focus has often been on efforts to make design "more systemic." From the community's perspective, what does systemicity matter? Efforts to carve out the legitimacy of the field and advocate for its relevance (i.e., to scale up and out) consume energies that could be directed towards transdisciplinary, participatory design and designing and assessing prototypes that cultivate situated systemic change with and for those most impacted.

This paper argued that the core assumptions informing the dominant gaze of systems design could be reimagined, offered one example of an emerging alternative approach, and highlighted a number of potential strategies. In the end, a systems-level approach to change should not only emphasise large-scale external designs that scale up and out; a systems-level approach might also emphasise the need for designs that emerge through participatory, situated engagements that evolve over time.

Systemic designers, for example, can shift much of their design and assessment practices towards cultivating more diverse and situated outcomes, including generating power for community members, shifting practices and policies, building relationships, and transforming mindsets. As Tulloch (2018) writes, "a sociocultural landslide is not about the few boulders loosened down a gorge, it is about the millions of stones that sweep down like a tide and transfigure the landscape." In the end, I hope the Power and Place Collective offers one humble source of inspiration and a few strategies for those interested in collective, situated, and emergent transfiguration of our landscapes.

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