Polymers in Action: Socially Engaged Art and the Environment

by

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Abstract
Polymers in Action: Socially Engaged Art and the Environment
by Vicki Clough, Master of Fine Arts in Criticism and Curatorial Practice,
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*Polymers in Action: Socially Engaged Art and the Environment* examines eco-art pedagogies that are emerging in response to the serious issue of plastic waste pollution. Using a combination of collaborative, environmental, junk art and craft theories, this research shows how a reconnection to the environment through active participation and art making can foster environmental literacy and the formation of communities of practice. Four artists associated with the website Project Vortex are presented as case studies and analyzed for their critical engagement with waste plastics, environmental clean-up and community building initiatives and the dissemination of these projects to wide audiences via online platforms. *Polymers in Action* extends these case studies into a local curatorial and educational practice that encourages sustained critical engagement with the environmental implications of current recycling and waste disposal methods in Toronto. This is achieved through ongoing art-making workshops and regular updates to the website www.polymersinaction.ca.
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Recycling efforts have been propelling efforts to navigate through a littered globe, but no secure course has yet been charted... All citizens are needed on deck, but a particular place has been reserved for artists. It is at the helm. As commanders of our culture's vision, imagination, creativity and inspiration, artists can steer a 'cycle-logical' course. This logic proceeds from artists’ familiarity with material processing and their mental processing.

Chapter 1: Introduction

Climate change and the destruction of the environment are prevalent contemporary problems that effect all forms of life on a global scale. Scientific research and general awareness are not enough to tackle these issues and often individuals are unaware of how they can act in a more environmentally conscience way. Pollution comes in various forms, but the production of waste is something we can all take more notice of. Junk, trash, garbage, refuse and rubbish are all words used in various places to describe our everyday waste. They evoke the abject—a disconnection and even repulsion from something we find uncomfortable or useless. The removal of waste in urban areas reflects our need for social ordering and disassociation with the detritus we produce. ¹ Out of sight, out of mind. Disassociation from trash and the belief that individuals do their part when recycling single-use plastic carries the implication that collective action is not required to change negative patterns. While plastic does not appear on the list of top pollutants, its insidious and negative impact on delicate ecosystems becomes more evident daily. ² Questions remain as to the efficacy of standard campaigns that aim to change our disposal and recycling habits. Media coverage plays a part, on a macro level, in generating and sustaining awareness, but where is the positive community based action that aims to educate through creative, physical engagement with these important issues?

The environmental movement of the 1960s and 70s incorporated a number of approaches that reframed the negative impact humans were having on the
environment and provoked environmental policy changes. Books, such as Rachel Carson's *Silent Spring*, helped fuel debates and encourage change at government levels through grassroots initiatives and activism. Today, most people gain awareness of issues through the use of their social networks, both web based and in real life. Activism operates in the same way as it always has, but the methods of sharing information have changed. More traditional approaches such as participation in events and signing petitions continue through online interaction and is regularly practiced by environmental non-governmental organizations (NGOs) such as the 5 Gyres Institute, Plastic Pollution Coalition and Environmental Defense Canada.

Contemporary environmental art, particularly art made from plastic waste, is included in this new form of information dissemination. Within groups that share a common cultural and artistic interest, events are organized and attended, websites are built and knowledge is shared. Some artists are introducing pedagogical hands-on clean-up approaches to communities and educational institutions. This leads to connections and growing attraction to particular projects that might not have been possible otherwise. It also allows for in-person connections and social engagement in art projects on a level that was previously unimaginable. The key elements for contemporary environmental art, which need to be conveyed, are social engagement and messages of environmental stewardship and responsibility. Environmental art (often called eco-art) focuses on social engagement to foster a greater sensitivity to serious concerns when
utilizing methods that involve community participation and education. The seriousness of plastic waste in the environment is being addressed in ways that incorporate eco-art educational models where the offending material is used to make useful or aesthetically pleasing objects or installations.

Socially engaged workshop models are grounded in methods and theories that are not always explicitly referenced, but serve to empower participants to alter their dis/association with the environment. These relational practices encourage a reconnection to waste materials that assist in the building of communities and encourage environmental stewardship through collaborative educational platforms such as Project Vortex University. While there are similar models within Canada at present, this knowledge is localized and difficult to uncover via online platforms or scholarly research.

My project, Polymers in Action: Socially Engaged Art and the Environment, grapples with this disconnection through the staging of discussion sessions and waste-plastic art-making workshops and will encourage sustained engagement with waste-plastic eco-art via a custom built website. As a curatorial practice, Polymers in Action serves to connect the role of the curator as a steward of culture and facilitator of knowledge sharing with art practices that encourage environmental literacy by addressing plastic pollution. By combining curatorial and activist approaches, this project allows me to animate local communities with new approaches to the ethics of consumption using adapted pedagogical models. As a result, the possibilities of curatorial practice are expanded to a broader
consideration of environmental stewardship via continued workshops which are disseminated to wide audiences through the curated website. Chapter Two is dedicated to an in-depth description of the ubiquity and problems associated with plastics in contemporary society. The importance of environmental awareness is highlighted, along with calls made by scholars and educators for more varied forms of ecological literacy. Chapter Three addresses my research methodology and provides literary contexts for the combination of craft, junk, collaborative and eco-arts pedagogical theories that are being employed throughout this study. Following this, in Chapter Four, I use this blend of theories to introduce hybrid practices that will take the form of four case studies. In Chapter Five I focus on three independent Project Vortex artists, Gabriela Bustamante, Liina Klauss and Aurora Robson, who all employ plastic waste as their main medium and means to initiate environmental restoration art projects. I also examine the relatively low level of visibly similar practice within Canada using the work of a fourth artist from the site, Katharine Harvey, to demonstrate an association with Project Vortex without educational and social engagement. Project Vortex has been selected as a main focus because of the access the website provides to independent projects being run internationally and how it functions as an entry point to this network. Finally, these case studies are critically examined in Chapter Six, through a discussion of the benefits and problems associated with the use of curated websites that act as both educational resources and marketing tools. I conclude by outlining how these hybrid models have inspired Polymers in
Action and how continued engagement encourages environmental literacy. The supplementary Workshop Report (see Appendix) supports these arguments. By staging an adapted workshop model as an extension of these case studies, my project activates individuals to participate in the creation of an eco-arts community at a local level. A curated website, Polymers in Action - www.polymersinaction.ca has been developed, providing visibility to these practices and situating this study within contemporary Canadian repurposed-plastic art discourse.

These methods of collecting and reframing plastic waste through art are a combination of what environmental artist, curator and co-author of Textlets on Art and Ecology, Linda Weintraub would call Activators, Philosophers and Sustainists. Activators are artists that tackle existing environmental problems that have been instigated by negative human intervention. These “clean-up crews” aim to implement positive and practical change through their activism and revitalization of degraded environments.9 Philosophers combine educational initiatives with environmental concerns to help bolster arguments against cultural norms that lead to harmful impacts.10 Sustainists aim to adjust consumption and behavioural belief systems for the benefit of the environment.11 While these three types of environmentally conscious practices are separate enterprises within Weintraub's analysis, I argue that they are united within the practice of repurposed polymer art.

Similarly, this form of art activism provides a sustainable educational
format whereby environmental issues are communicated in a highly physical way. Participants are introduced to new ways of thinking about their environment and the materials they use to produce art, possibly activating them as agents of change. The potential for wide dissemination of these ideas through similar initiatives and popular digital social networking platforms and websites such as Plastic Pollution Coalition can only lead to a greater understanding and sensitivity to the environment and to the possibilities offered by repurposing waste materials, particularly those that pose a serious threat, such as plastics.\textsuperscript{12}

\section*{Chapter 2: The Problem with Plastics in the Environment}

Plastic is a relatively new material that has only been commonly used to make consumer products since the end of the Second World War. The ease of manufacturing plastic makes it an ideal material for commercially sold receptacles/containers and products. It's lightweight, durable, mouldable and can be made in an array of colours or transparent. It can be thick and bulky, extremely small, or thin and flexible, and it can securely contain liquid or dry substances. Plastics have revolutionized the manufacturing processes of everything from baby products and toys to electronics, it can now be 3D printed and is currently being investigated as a viable material for spaceship building.\textsuperscript{13} Polymer based bags and bottles are particularly useful. Shopping is made easier by the cheap (and occasionally free) bags to carry purchases in and if one is thirsty, a cold drink in a
disposable bottle is never hard to find. In short, it is a remarkable substance, with an infinite number of uses to the modern consumer.

Plastic is such an integral part of everyday human existence that it is extremely difficult to imagine life without it. It is now so ubiquitous as an easy, cheap packaging material that there is a reliance on its suitability and the assumed safety from contamination it appears to offer. However, in recent years, scientists have discovered that plastics contain dangerous chemicals that can interfere with normal cell production, causing cancer, which has led to the widespread banning of BPAs in plastic baby bottles.\textsuperscript{14} Simply eating or drinking from plastic containers can cause contamination in the body.\textsuperscript{15} The harmful biological effects of plastics on human life is an important scientific and social issue, however, this becomes more significant when the volume of waste-plastic in the environment is taken into consideration.\textsuperscript{16} Most plastic does not biodegrade. Polymer strands simply break apart and get shorter, without ever dissolving or returning to a pre-manufactured state. For this reason (along with many others), what we do with our discarded plastic is of greater consequence when the sustained wellbeing of the environment is considered.

Although recycling initiatives are commonplace, they are labour intensive and can be costly to initiate. Manpower is required to sort objects by their recycling codes and the reusability of an object for recycling depends on the state in which it arrives at the factory. Cleaning and decontaminating plastics for reuse is time-consuming and can be expensive. Repurposing plastics into new items is
becoming more possible with technological advancement, but this depends heavily on the existence of recycling plants. Recycling can also decrease the structural integrity of a product, which means that using plastic to remake the same object more than once becomes inviable. Plastic is made up of polymer strands that are weakened by exposure to heat and light. When it is melted and remoulded, the resulting product will not have the same strength and durability as a newly made one and can deteriorate quicker. Even though it takes a toll on natural resources like the oil that is used to transport goods over land and sea and gas, which is a main component of plastic production, for most places it still makes more financial sense to manufacture using virgin plastic rather than recycled plastic.

What happens to the plastic that is not recycled? It goes to landfill. The problem with plastic objects in landfill sites is that they don't always stay there, in fact 80% of the plastic found in the ocean comes from in-land sources. Due to their lightweight nature, it is possible for them to be transported by wind, water and rain, or animals, to other locations. When plastic ends up in rivers and streams, it is eventually transported to the ocean where it drifts around, seemingly harmless. Some plastics end up in the ocean because they are cast off of ships, sometimes unintentionally other times not. Recent research is proving the detrimental impact this dumping is having on the ocean and the aquatic life it supports. Dr. Richard Thompson, a leading researcher at the Marine Science and Engineering Institute in Plymouth, England, has investigated the degradation of
plastic over an extended period of time. Thompson’s studies also included surveys that aim to determine if plastics cause the deaths of birds and sea life. By examining their carcasses, Thompson has encountered large amounts of plastic debris that could have suffocated them or interfered with regular nutrient absorption during digestion. Larger fish, turtles and whales are also in immediate danger of consuming bigger plastic objects that can easily be mistaken for food, or becoming ensnared in debris as it floats, suspended underwater. In addition to this, the results of Thompson’s studies reveal that ocean plastic is degrading into tiny particles, small enough that plankton may be able to consume them. If plankton also eat plastic particles, it could lead to a more rapid decline in their numbers. This could have a significant negative effect on the oceanic food chain, of which they form the basis. The estimation that there are five trillion pieces of plastic in the ocean is likely a vast underrepresentation of the issue at hand. The problems are ethical, practical, economic and environmental—a combination of considerations that need to be addressed. Polymers in Action and the models that have inspired it, offer a way of addressing these concerns through creative collaborative initiatives and hybrid practices.

Chapter 3: Methods and Theory

As waste-plastic art practices take hybrid collaborative forms, multiple theoretical and practical entry points are provided to analyze the layers at which they operate. A blend of primary and secondary research allows for: a multi
directional approach, the opportunity to put theories into practice and the provision of feedback from participants and artists. Using this combination of methodologies and sources provides a solid pedagogical foundation for developing future programs of a similar nature.

Junk art provides a historical point from which to view contemporary waste activist art practices particularly British professor and author, Gillian Whitley’s analysis of bricolage and the role of the trash picker. Craft art and activism are similarly combined in the performed nature of the work that forms the core of this study. Craftivism, a term first used by American craftsperson and writer, Betsy Greer, is used in reference to art that acts to connect individuals to communities through the practice and performance of making. Anthea Black and Nicole Burisch go further, to draw a connection between craftivism and curatorial practices and how new forms of presentation serve to maintain the radical potential of craft as activism by focussing on the making process as opposed to a finished product.

This attention to public dissemination of process and community building through practice is a key element of this study, as it plays a vital role in fostering environmental literacy through education and making. Various scholars further support this. Linda Weintraub and Sam Bower's extensive research into the varieties of eco-arts practices both help position waste-plastic art within this category, although it is not specifically discussed. Suzi Gablik, Grant Kester and Nicholas Baurriaud provide contexts for eco-awareness, collaboration in art, and
relational practices respectively. Gablik's thorough investigation of alternatives to “dominator systems”, and how we can become better attuned to the needs of the earth through interconnected networks of practice forms the ethical and practical core of this project. Kester's *The One Contemporary Collaborative Art and the Many in a Global Context* and Baurriaud's *Relational Aesthetics* have provided some important historical context on how collaborative and relational practices have been executed in various forms, for a variety of activist causes.

The analysis done by Hilary Inwood, a Toronto based educator and eco-artist draws these collaborative, craft based techniques into the educational realm. Her extensive studies into eco-arts and their capacity to encourage environmental literacy provide formal pedagogical elements to the structure and execution of this research. Inwood highlights the importance of employing art as a means to achieving a balance between scientific research and affective, creative, and I would suggest actionable solutions, to environmental illiteracy.

This research methodology forms the theoretical framework of *Polymers in Action* and feeds directly into the delivery of practical workshops, supports the formulation of the workshop model and discussion topics and also provides critical elements required for reflexive strategies. Primary, action, art-based research methods include participant observation during the workshop sessions that have been adapted from existing eco-arts practices, presented here in the form of case studies. Discussions during sessions and post event interviews with attendees and activist artists provided critical engagement with the various
models, which leads to reflexive project analysis of successes and failures. These will be used to develop future workshops and the *Polymers in Action* website.

Chapter 4: Polymers and Craftivist Methods and Practice

Junk art is a term associated with art practices that employ waste materials and champion particular aesthetic considerations. Objects that fall within this category are made up of discarded items that are collaged together to create a sculpture or hanging artwork and the “junk” is not obscured or hidden, but is essential to the artwork’s aesthetic. It emerged in the 1960s, as a means to shock viewers and address social issues by presenting them explicitly. Traditionally, as an artistic form, it has ethical considerations, however its focus was not on environmental issues but on the history that an object possesses. In her 2012 book, *Junk Art and the Politics of Trash*, Gillian Whiteley outlines public waste management services as a convenience that was previously carried out by lower income men and women who would collect and sell discarded items to make a living. While this study is not exhaustive, the international phenomenon of the trash picker, chiffonier or bricoleur is shown to be one of social and economic importance, in a pre-garbage collection serviced society.\(^{27}\) Whiteley provides a detailed account of the emergence of repurposed materials, or junk, in art around the world. Some of these practices continue today, most often in countries with challenging economic climates, such as South Africa, where artist and craftspeople often use discarded objects to create objects for sale to tourists.\(^{28}\)
Various models can be seen to engage with the traditional role of the bricoleur, with additional emphasis on the attention we give to what happens to our plastics when we are done with them.

Similarly, contemporary craft has shifted in recent years as methods of making have become more varied and materials have developed beyond those used in traditional folk crafts. Hybrid practices have emerged, whereby craft artists are employing materials in new and innovative ways that blur the lines between craft object and art and “expanding into fields not previously considered”. If, as posited by Janis Jeffries, craft is emerging as a means of individual expression that conveys sensitivity to materials, ideals and to confront consumer indifference, then emerging repurposed-plastic art is an excellent example of craft with conscience.

This activation of sustainable hybrid forms has been referred to as Craftivism by Betsy Greer and supports the notion that acts of craftivism, when done consistently and repeatedly, can spread and grow. The formation of groups such as Project Vortex illustrate how contemporary communities of practice are formed and shift the perception from individual responsibility towards a commitment and passion for a shared set of ideals and a common message.

“Communities of practice define themselves along three dimensions. First, they are joint enterprises that are continually renegotiated by their members. Second, they function through mutual engagement in an activity that binds the members together as a social unit. And third, they produce a shared repertoire of communal resources, routine sensibilities, artefacts, vocabularies and styles that have been developed over time.”
This is a shift that Bruce Metcalf recognized in 1997 as being a practice that is “Free of external compulsion, people can be motivated by intuitive recognition of their own innate abilities”, an artistic practice that can be categorized as both a class-of-objects and a method of making that employs pre-industrial production techniques. This theory is supported by Gloria Hickey when she states “money is on the opposite end of the spectrum from the handmade and the intimate”. This further illustrates that the importance of craft and art objects lies not only in the monetary value that can be applied to them, but to the cultural and individual resonance that handmade objects may possess.

Just as craft has evolved into communities of practice with a wide a variety of forms and intentions, environmentally focussed art has done the same. Over time nomenclature appears to have blurred distinctions between the types of approaches that relate to environmental awareness, as writer and environmental artist Sam Bower has stated:

“The term "environmental art" often encompasses "ecological" concerns but is not specific to them. It is flexible enough to acknowledge the early history of this movement (which was often more about art ideas than environmental ones) as well as art with more activist concerns and art which primarily celebrates an artist's connection with nature using natural materials.”

Contemporary craft validation, and by extension waste-plastic art, operates within a community of shared standards of legitimacy pertaining to a specific medium, in this case polymers. When discussing the use of waste-plastic art in this way, a connection can also be made between the value of the ordinarily disposable materials being used. The tactility and versatility of plastics, as well as
the multitude of forms it washes ashore as, allows for a diverse range of applications that falls on the edge of art and into craft practice. A shift such as this aids in a conscious and deliberate link to the disregarded waste objects that are thrown into the garbage or often directly onto the ground or into rivers and the ocean. The craftivist works to remake it into something that retains some semblance of its original texture or colour, but with a new context and use as an aesthetically appealing or even useful object, with an ethical approach to the environment. This ethical perspective is what unifies a multitude of craftivist practices and expands the possibilities of reaching diverse audiences, achieving a more sensitive and sustainable relationship with the environment.40

Chapter 5: Project Vortex Case Studies

Project Vortex is an online platform that lists individual artists all over the world who each use plastic waste in their work. The site features Aurora Robson, Gabriella Bustamante, Katharine Harvey, Helen Seiver, Liina Klauss and Tyrome Tripoli who repurpose waste-plastic items in ways that explore their material possibilities. Three of these artists in particular, Bustamante, Klauss and Robson, are doing work that invites communities to help restore the natural beauty of their local environments and employ waste-plastics to encourage environmental literacy. Notably, Canada has a single artist featured on Project Vortex, Katharine Harvey, who is a painter and installation artist based in Toronto. Her work will serve as a critical counterpoint to the socially engaged workshop models that form
Case Study #1: Gabriela Bustamante

Gabriela Bustamante lives and works in Amsterdam, Netherlands. A designer, consultant and university professor in cultural diversity, Bustamante previously worked with a partner, Caro Isern, to create the Latin Sisters Design Studio. Together they would connect businesses, institutions and communities with the common goals of achieving economic and environmental sustainability. Between 2006 and 2011, they ran a number of projects under the banner “Desycling” where participants were involved in brainstorming and workshopping ideas to address social and environmental concerns. Her business model implemented an adaptable co-design strategy where she is hired to address issues that involve social interaction. Community stakeholders, including local government bodies, would approach her with a prevalent environmental issue in the area and she would develop strategies to create positive change through educational workshops. Her collaborative design projects engaged various communities and often called local disposal methods into question. To facilitate the Desycle workshops, coaches from each community were trained over a period of roughly 4 months. They were taught desycling methods, practices and the characteristics of a desycled design object. Using these methods, Bustamante and her partner engaged audiences with hands-on challenges to create valuable objects, such as jewellery, made from repurposed plastic materials.
The aim of these short-term projects was to plant a seed of awareness in a local area, provide the expertise to educate the community about the effects of their waste practices and leave the community with new solutions and ongoing environmental practices in place. The Desycle coaches provided assistance during the implementation of the workshops and became sources of local knowledge to sustain engagement and continue sharing skills after the project had ended. The studio's formal workshops ceased operating in 2010, but some follow up was done until 2011. During this time, Bustamante noticed that some members of the community had taken up their own design practices that used recycled materials as their main medium. Simultaneously, some local initiatives had continued to run and new ones had begun.

Despite the cessation of the Latin Sisters Design Studio and Bustamante's current focus on teaching, she continues to respond to requests to participate in socially engaged projects in Amsterdam. In 2013 she worked on Trash Lab, an interactive installation for the Freezing Favela exhibition at Mediamatic Fabriek, a cultural institution and venue for public events. The main parameter of this project was that each participating artist or designer had to build a favela out of recycled materials to house their installation. Bustamante's initiative was aimed at children and allowed them to make jewellery, skipping-ropes and other items from waste-plastic materials. She also continues to encourage sustainable design strategies through her role as a university educator.
Figure 1: Art-making workshop at one of Gabriela Bustamante’s “Desycle” events. Image courtesy of the artist.

Figure 2: Raincoats made from plastic bags. Image courtesy of the artist.

Figure 3: Necklace made from one plastic bag. Image courtesy of the artist.
Case Study #2: Liina Klauss

More recently, Liina Klauss, a German environmental artist and painter living on Lantau Island, Hong Kong, has been travelling around China, Thailand and Malaysia in an attempt to activate communities in the restoration of their local beaches. Environmental issues are central to Klauss' practice; she aims to encourage a more sensitive relationship through her visual representations and travelling clean-up initiatives, which she presents to a global audience through her frequently updated blog page. Klauss works with local school groups such as Lantau Island International School on a regular basis, as well as NGOs and some corporations. To her, the value and success of this kind of work is found in the connections made between people and the environment and she aims to encourage more ecological thinking on a local level through her philosophy: “what you touch touches you”.  

Klauss primarily co-ordinates collaborative collecting and sorting events where large groups of people of all ages comb the landscape for plastic waste, which is then used to create colourful ephemeral land art installations. One or two days are allocated for groups to comb the landscape for waste matter. Klauss assigns a specific colour to be collected at a time, to focus the collection process and appeal to an individual's sense of sight. The items are not cleaned, but are arranged according to colour in the landscape and then photographed. Once the installation has been documented, all pieces are gathered up and carefully discarded or recycled if possible, leaving the area in a litter free state.
Klauss does not claim to have a solution to plastic waste found in the landscape, but she feels that through repeated action, change is possible. She has enacted a number (about 20) of these projects, including *River of Rubbish* on the shore of Shui Hau, Lantau Island. On October 31, 2014, 80 locals met with Klauss to collect as much debris as possible from the landscape. The resulting *River of Rubbish* installation shows an astounding amount of plastic that has been sorted and arranged into a dry riverbed. This was done in support of a 3-day 75km fundraising swim challenge run by Plastic Free Seas, that ended on Shui Hau beach on November 2, 2014.

Klauss also works with the Savannah College of Art and Design, an American school with a campus in Hong Kong. Through initiatives run with the students, she has noticed a shift in perception as they have become more aware of their local environment and the issues of plastic waste, to the extent that some have begun addressing this through their own work. As none of the students have graduated yet it is still difficult to gauge whether this will continue, however, Klauss sees this as a positive effect of the work she is doing. Similarly, the projects she has run with Lantau Island International school has led to the possibility that the school may adopt their local beach. If this were to occur, Klauss would initiate weekly clean-up sessions with students to bring them out into nature and show them how the landscape changes over the seasons.

The positive reactions and connections being formed on Lantau Island and the surrounding areas is something that Klauss hopes will spread in the future.
With this in mind she is hoping to collaborate with fellow beach-combing plastic artists Richard Lang and Judith Selby Lang, who are also associated with Project Vortex. This potential upcoming project, along with her pedagogical approach being adapted by local schools and connections being made internationally, illustrates Klauss' belief that positive action can be achieved through exposing the problem through artistic, physical and educational interaction.
Figure 4 (top) & Figure 5 (bottom): Liina Klauss, *River of Rubbish*, 2014. Images courtesy of the artist.
Case Study #3: Aurora Robson

Aurora Robson employs a similar environmental clean-up art-making pedagogy within community settings. However, the artwork produced is not ephemeral and is ultimately sold. Robson is a Toronto born sculptor and painter, now based in New York. Since beginning to work with waste plastics in 2002 and after rigorous study into the material and its harmful effects on the environment, Robson has been inspired to share her knowledge with others through her educational projects. The format that her program *Sculpture and Intercepting the Waste Stream* follows is of a more formal nature and is grounded in theoretical and sculptural principles. This model has been implemented in Central Piedmont Community College in 2014 and Mary Baldwin College in 2012/13.51 Participating students were provided with a reading list, which included essays by Suzi Gablik and Alan Weisman, to stimulate discussion about the issues of plastic waste and the role that art can play to communicate environmental concerns to a wider audience. After selecting a local riverbank site, a clean-up session was undertaken by the group whereby all waste and foreign objects were collected and categorized. The items were carefully cleaned, then transformed into art objects using various craft and sculptural methods over a period of three weeks. The course culminated with an exhibition and silent auction of the students’ work.

By engaging with a workshop model and sharing her philosophy that “it's called matter because it matters”, Robson feels that she can help others to become aware of their own relationship to the material and encourage responsibility.
Robson sees her role as presenting a viewing public with personal items discarded and then reclaimed from the ocean—by doing so, she is addressing the disconnection between material possessions and thoughtless disposal, while invoking the notion of bricolage.\textsuperscript{52} She is also inspired and encouraged by the possibility of having a sustained positive effect on the lives of others and the environment.

It was this attraction to social and environmental sustainability that led Robson to create the Project Vortex website and Project Vortex University page, as she sees it as a larger problem. While she recognises that as a professional artist, she has to make a living from the work that she produces, she also wants that work to be able to do something that benefits others.\textsuperscript{53} With this in mind, Robson decided to find out if there were other artists addressing these issues through their work and create a space where this knowledge could be shared with a wider audience through a single access point. Similarly, her educational practice within schools and community centers has been shared widely through her public talks and website, some educators from various parts of the U.S are now approaching her with the aim of implementing her program in their institutions. She provides the information required to begin similar projects so that anyone who is inspired to do so has the tools and support available to them. This spreading of her pedagogical model has the potential to become a permanent fixture in curricula across America and will be repeated at Central Piedmont Community College this year. Even though Robson has not had the chance to
implement the project at an art school, she is excited to do so. The possibility that other artists might be inspired by the program and continue to work with waste plastics and focus on environmental issues is something that she would like to explore in the future.
Figure 6 (left) & 7 (right): Students of Mary Baldwin College and a work in progress during workshops run by Aurora Robson for *Sculpture & Intercepting the Waste Stream*, 2013. Images courtesy of the artist.

Figure 8 (left) & Figure 9 (right): Installation views of Mary Baldwin College student's work created for *Sculpture & Intercepting the Waste Stream*, 2013. Images courtesy of the artist.
Case Study #4: Katharine Harvey

Toronto based painter and installation artist, Katharine Harvey, creates large-scale installations that do not engage viewers in the making process, which contrasts with Bustamante, Klauss and Robson's work. All Harvey's installations are site specific, public, made from plastic bottles gathered from local recycling bins and resemble waterfalls or expensive chandeliers to provide a “provocative commentary on the excesses of consumer society.” However, while Harvey's work allows a visual engagement with the vastness of plastic waste, an element of connection to the material and the consumer is lost in this form of presentation. Similarly, there is no collaboration or participation required when encountering her sculptures and she is solely responsible for the conceptualization and installation processes.

Harvey's work is primarily an aesthetic object, a pleasing arrangement of plastic bottles, carefully arranged and secured with monofilament into a cascade resembling water or crystals suspended from a ceiling or wall. When compared to Robson, Klauss and Bustamante, Harvey's installations are not immersive and they create a viewer dynamic that concentrates on aesthetics and removes any sense of responsibility the observer might have for the Junk art on display.
Figure 10: Katharine Harvey, *Waterfall*, 2013, recycled plastic, monofilament, 18 x 34 x 2 feet (Bank of America Building, Los Angeles, California). Image courtesy of the artist.

Figure 11: Katharine Harvey, *Above and Below*, 2010, recycled plastic, monofilament, 24 x 24 feet (Fairview Mall, Don Mills, Ontario). Image courtesy of the artist.
Chapter 6: Processes, Participation and Pedagogy

Aesthetically, all four artists’ work falls within the rubric of Junk art: they collect discarded objects and remove them from the waste stream, they repurpose found items and with the exception of Aurora Robson, they do not adapt their shape and colour. The implications and volume of the waste materials presented evokes shock in the viewer that so much waste can be found out of place. These artist have realized that this shock is best approached by actively working towards creating a dialogue where issues of environmental stewardship can be addressed through creative educational strategies such as the Project Vortex University model, Klauss' clean-up efforts and Bustamante's workshops (an aspect that is absent from Harvey's installations).

Project Vortex University provides open source educational information that artists and educators can adopt similar project types within a learning environment, effectively forging a connection between emerging artists and the seriousness of environmental degradation. By engaging with communities in this way, connections between responsible disposal methods are addressed through unique and collaborative means by a critical engagement with the material. Junk plastic art combines a sensitivity to materials that links the maker, the sources they obtain the objects from, the making process itself and the audiences they present their work to. Without this connection to materials, physical engagement with communities and critical reflection on waste management practices, the idea of caring for one's environment would not be conveyed.
By teaching and encouraging a collaborative practice of ethical making, Robson, Klauss and Bustamante are facilitating a shift from an individualistic perception of the artist to one of intersubjective collective awareness and action and the move away from a focus on object production towards a relational practice. Performing craft using recycled plastic, in a group, with the aim of changing our relationship to waste is indicative of an emergent philosophy that art historian Grant Kester sees as being a “...compensatory cultural response to the destructive, dehumanizing effects of modernity....” A return to a less individualistic, process based approach to art-making can be seen as relational practice, a term widely adopted since it was first used by Baurriaud in the 1990s. Both Kester and Baurriaud highlight changes in artistic praxis that foster an environment of interaction and exchange with the viewer to complete the work. Relational practices focus on the act of making or participating and self reflection as a key component to conveying meaning through experience rather than through purely aesthetic viewing. Robson, Klauss and Bustamante's environmentally focussed pedagogies are fundamentally relational and interactive and the self-reflexive impact participation has on those who attend is a key ingredient to their success.

Relating to the effects of plastics on the environment (whether through direct contact as in Robson and Klauss' clean-up projects, or through brainstorming solutions to local issues as in the work of Gabriela Bustamante) brings participants the opportunity to act creatively with regards to their social
and environmental responsibilities. Plastics harvested from the environment have an inherently negative quality that is directly addressed by the artists who collect them. The objects are thoroughly cleaned in most cases, and then carefully evaluated for projects, taking into consideration the colour, texture, size, shape and other unique aesthetic qualities. The collecting and making processes connects the maker with the environment through the act of collecting, and then the versatility, pliability and aesthetic qualities of plastic, as it becomes something new. Similarly, the resultant artwork is unique in colour, size and texture due to the fact that each piece is made by hand out of materials that come in various conditions, from varying industrial sources. By altering the aesthetic appearance of these machine-made objects, artists, craftspeople and the communities they work with are able to shift the meaning from one of disconnection with the environment, to reconnection with the materials, how they are out of place in the landscape, and the larger question of the environment.

Artists who repurpose plastics into new crafted objects are not always inspired by a need to restore the landscape, as evidenced by interviews with Robson where she indicates that she began as a painter and sculptor. However, in the last 13 years, the shift towards using discarded plastic as a key medium has expanded her practice to include an eco-awareness and collaboration with those who are similarly inclined, while maintaining her professional practice. She has identified a tension she feels from the oppositional forces of wanting to do good work with regards to the environment, specifically through implementing more
Project Vortex University workshops and making a living from her independent professional practice. As a result of Robson’s success as an independent artist and the regular work she considers herself fortunate to be commissioned for, she has been unable to accept some offers to facilitate workshops. This has also effected her ability to maintain contact with featured Project Vortex artists and website maintenance, a critical element in sustaining the platform for the public to access.59

All environmentally focussed art and craft practices do share a common ethical approach to the earth and the impact that thoughtless human actions have on it. Not only do these artists and craftspeople enable local communities to take action against plastic pollution and restore the landscape, but they also allow for a sustainable program of action through funds raised by the sale of the work produced. Project Vortex functions as a marketing platform for all the makers involved and an educational and community building tool, with the singular goal of providing ethical and inventive plastic repurposing methods to divert plastic from the waste stream. A portion of each object sold is made available to initiatives such as the Plastic Pollution Coalition, 5 Gyres Institute and Plastic Free Seas, continuing the effort to remove plastic waste from the waste stream and environment. The models employed by artists such as Aurora Robson, Liina Klauss and Gabriella Bustamante are not only a means to create aesthetically interesting objects, but also through the restoration of local landscapes and tactile employment of materials, they are encouraging ecological literacy through arts
Conclusion: Activating Local Initiatives

The pedagogic models that can arise from interactive projects such as those discussed in the case studies allow for a free-flow of ideas and strategies that are adaptable to participants and audiences in all parts of the world. Given the ubiquity of plastic waste and the rise in awareness about its detrimental impact on the environment, it is not surprising that these types of projects are creating their own communities of practice, using the internet as a main tool for sharing information. Project Vortex has members all over the globe, including countries such as England, Ireland, Spain and Australia, with a large concentration in the United States. Interestingly, Harvey is the only Canadian artist listed on the online platform. A greater effort needs to be made to create more focussed attention on this important issue in Canada.

Project Vortex, as a central source of information regarding eco-arts education has been an effective tool for sharing these otherwise disparate practices. As demonstrated by Bustamante, Klauss and Robson, their projects have fostered awareness for local issues around plastic waste and the activation of individuals to work towards a more engaged relationship with their environment. This “place-based” art and craft practice brings communities into contact with the lived experiences of others and a connection to the broader context of the problems associated with plastics, something Inwood would describe as a
development of how art and craft “can be used to create meaning in their lives or bring about social change”.

Indeed, the structure of *Polymers in Action* was not only informed and inspired by the aesthetics of the work made by Project Vortex associated artists, but by the socially engaged, action oriented approaches taken at local levels across the globe. The aim of this initiative is not to solve the issues related to plastic pollution, but to create a visual and physical dialogue that addresses problems that are prevalent in contemporary society and to bring Canada into conversation with those who have instigated waste-plastic art projects in other locations. In performing the collecting, creating and discussions about local plastic waste, participants were engaged with the idea that they can do something creative to promote awareness of these issues where no alternative is offered.

Here it is relevant to return to Weintraub's notions of Activators, Sustainists and Philosophers. Project Vortex artists and the chosen formula for *Polymers in Action* combine these methods of thinking about the environment in a unique way. While not all the artists researched for these case studies act as Weintraub's Activators in terms of visible clean-up initiatives, they do divert plastic waste objects from entering the waste stream through the waste-plastic art that is created by all involved. All these artists and makers function as Sustainists in that they address important consumption issues, both explicitly and implicitly and the educational formats provide the frameworks for the artists involved to be
considered Philosophers.

The formation of the online *Polymers in Action* network allows for a continuation of this project and a sustained interaction between the artists, craftspeople and public involved and communicates this conversation to an international audience. In effect, this course of action is an open-ended response to and assertion made by Inwood: that these kinds of models are not being shared with a broad audience.  

The key difficulty with this kind of information is not that it isn't being shared, but that interest needs to be generated through grassroots initiatives for more sustained engagement to occur through a network of projects and online exposure.

While Inwood raises an excellent point and the research into these areas is difficult to locate, the benefits of the Project Vortex website are many. It operates as a marketing platform for associated artists and makers, providing their professional website links and statements, and the sale of their featured work helps to keep clean-up initiatives and NGOs functioning. It links together what would otherwise be disparate communities of practice under a shared ethical approach to materials and the environment and it provides information about educational models that can easily be adapted into new forms: as in the case of *Polymers in Action*.

What remains to be seen is exactly how *Polymers in Action* will continue to evolve into an established locally based eco-art pedagogy that can be similarly adopted into curricula, like Project Vortex University. Future adaptations of the
project will explore the possibilities of introducing it into formal primary and secondary education in Ontario, with the potential for province-by-province implementation. What is certain is that the seriousness of environmental degradation due to plastic waste is an issue that requires immediate attention. As demonstrated by Bustamante, Klauss and Robson, collaborative, community building craftivist practices can succeed in drawing this attention by encouraging environmental literacy. While this interests local makers and artists, as well as members of the public, an access point is required whereby actionable change can be achieved and sustained through the process of making. Given the interest shown by individuals and community centers such as Artscape Youngplace and through adaptation of the eco-arts education, the ongoing Polymers in Action project and website, both run and maintained by me, will serve as a local information source for educators and artists and craftspeople around the city and globe. By sustaining a connection between communities and local plastic waste disposal issues and an international audience Polymers in Action offers a way into the global conversation and offers a creative and collaborative means to address environmental concerns at a local level.
Notes

3 Rachel Carson, Silent Spring (Boston: Houghton Mifflin, 1962)
10 Ibid., 127.
11 Ibid., 78.
12 The Plastic Pollution Coalition was recently (March 26th & 27th, 2015) featured at a symposium on plastic waste that was attended by artists, scientists and activists and culminated in an exhibition of artist’s work that responded to the effects of plastic pollution on beaches. This event was shared widely through the affiliated groups' social networks to gain traction and reach a wider audience.

17 Bipisphenol A, and other harmful compounds have been identified as a common components in plastics, contaminating our food and drinks and being ingested by millions of people worldwide. There has been a push to remove these harmful chemicals from plastic products.
23 Weisman, 116-7


28 This practice of using discarded items to make art and craft objects to sell to tourists is something that the author has witnessed first-hand, having grown up in South Africa. 


32 While Robson, Klaus and Bustamante have not explicitly identified themselves as craftivists, the scope, methods and effects of their practices are closely related to those of craft activism. 

33 Stevens, 45. 

34 Ibid., 46. 

35 Bruce Metcalf, “Craft and Art: Culture and Biology” The Culture of Craft (Manchester: Manchester University Press, 1997), 76. 

36 Ibid., 85. 

37 Craft and art are used interchangeably, as the author sees them as inextricable terms. 


39 Stevens, 44. 


41 The fact that all three featured artists are women has been noted and considered. This is an important point that would benefit from deeper investigation in relation to gender roles in relational, craft and environmental art. 

42 No specific definition is available for the term desycling, however, it has been used by Bustamante to describe the process of designing or making artwork using waste objects that would otherwise have been sent to landfill. 


44 No current examples are available, as some time has passed since this project ended. 

45 Gabriela Bustamante, Skype interview with the author, Feb. 25, 2015. 

46 A favela is a shantytown constructed out of waste materials by people who are homeless. The term originated in Brazil. Accessed Feb. 26, 2015. 

47 Liina Klaus, Skype interview with the author, Feb. 26, 2015. 


50 Plastic Free Seas is a charitable organization that aims to educate local communities and activate change regarding plastic use and waste in Hong Kong. Accessed Feb. 15, 2015.
http://plasticfreeseas.org/about.html.
Liina Klaus, Skype interview with the author, Feb. 26, 2015.


53 Aurora Robson, Skype interview with the author on Mar. 5, 2015.


56 Ibid., 21.

57 Nicholas Bourriaud, Relational Aesthetics (Dijon: Les presses du réel, 2002), 22; Kester, 30.

58 Confirmed in interview with the author on Mar. 5, 2015.

59 Aurora Robson, Skype interview with the author, Mar. 5, 2015.


62 Ibid., 31.

63 Staff at Artscape Youngplace have shown interest in hosting an expanded version on Polymers in Action over the course of 2015 and into 2016 and have offered a complimentary membership to facilitate the workshops.
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http://plasticfreeseas.org/round-Lantau Island-fundraising-swim-29th-oct---
2nd-nov.html.

http://www.cleanwater.org/feature/problem-of-marine-plastic-

Appendix A:

Workshop Report

Workshop Description, Planning and Review

*Polymers in Action: Socially Engaged Art and the Environment (Polymers in Action)* took the form of two separate workshops, both run at the Ontario College of Art and Design University (OCAD) in January 2015. The events were intended for a diverse range of people from various backgrounds and with a range of craft and art making skill sets. The model employed for the workshops and the development of the website *Polymers in Action* was inspired by the practices of Aurora Robson, Liina Klauss and Gabriela Bustamante and their association with Project Vortex. The aim was that *Polymers in Action* would generate interest and collaboration and assist in the formation of a local eco-art community through action and art based engagement and research. Plastic waste served as an entry point into environmental concerns, with the intention of guiding a range of participants in a making and discussion session. This was followed up with primary qualitative research in the form of interviews with artists and participants and a critical and reflexive assessment of the model. As there is an apparent gap in visible practices of this nature in Canada that can be traced through online searches or scholarly research, my intention is to establish an internet-based platform for like-minded local and global artists who address issues of plastic pollution. An online platform was intended to provide an ideal vehicle for the
dissemination of ideas and possible future links with similar networks around the world, sustained through continued research and connections with artists, craftspeople and curators initiating similar community-based strategies.

At a personal level, this research has been greatly influenced by my upbringing in South Africa and the prevailing tendency of artists and craftspeople to generate income from objects made with recycled waste materials for sale to tourists. This practice was also something I saw while living in Ireland during the 2008-10 recession. My previous experience as a textile artist and craftsperson, an arts and crafts instructor at a summer camp, and as a teaching assistant, plus my ongoing involvement in a local participatory art event, Figment Toronto, as Curatorial Director, have influenced the formulation of this research project.

Planning Phase

September-November 2014

The workshop model was chosen for the purpose of directly engaging with waste materials within a communal setting. Idea and skill sharing, collaboration, discussion and critical reflection were encouraged, and short readings were suggested. I decided to stage two short events, to allow an expanded range of participants and responses. As this project was executed outside of the gallery, seminar rooms at OCAD were utilized, to reduce rental costs for studios and to engage graduate and undergraduate communities more easily.
My project was framed by experience gained during two other workshops I attended. The first was in collaboration with local community artist Paul Byron for Canada's annual “Culture Days” event on September 27th, 2014, a nation-wide, interactive program where members of the public can participate in cultural production and discussions. For this event we encouraged visitors to repurpose the pages from telephone books into artworks. Origami instructions, craft and drawing supplies were provided, and some very interesting and creative pieces were made. Active assistance was also administered at a similar workshop “Barefoot Entrepreneurship”, run by Professor Alia Weston for the Intersection: Entrepreneurship & Indigenous Art conference at OCAD on November 15th 2014. During this event, participants were provided with waste materials and challenged with creating something that would make people happy. This provided a valuable insight into a viable workshop model and ways of engaging participants through presentation, videos, discussion and making.

To add some local participatory response, I decided that interviews with activist artists as well as participants would benefit the research, as it allowed for feedback and critical reflection. The use of qualitative, critical, action and art-based methodologies was chosen to fit with the framework of the events coordinated. OCAD Research Ethics Board (REB) approval was sought to allow for the use of collected data, in the form of interviews, for this study (REB approval number – 2015-01).
November 2014-January, 14, 2015

The REB application provided a framework and planning model that informed the workshop, website and interview preparation. Documents prepared for the REB application included a poster advertising the event, copies of the suggested readings, a detailed consent form and an invitation to interview and consent to be photographed. Interview questionnaires for participants and another for professional artists were prepared. Interviews were to take place both prior to and following the workshops, so questions addressed both the attraction to the events and the learning experience or outcomes. All registered attendees were invited to an interview, however, it was clearly voluntary, private and the option to remain anonymous was provided.

Event dates were set and the spaces booked for January 14 and January 17, 2015 and they were listed on Eventbrite.ca and circulated to all OCAD faculty, graduate studies via the weekly blog and personal email invitations. Follow up emails were sent on January 6, 2015, as well as listings on the OCAD website and www.themakersnation.com, plus the event was widely shared on social media by participants and friends.

Attendees were required to register with an email address on Eventbrite to secure a place and to allow for ease of communication. Two short readings were selected; Linda Weintraub's “The Studio Potential of the University Art Gallery” and Suzi Gablick's “The Ecological Imperative” and emailed a week before the
Attendees were encouraged to bring waste materials, plastics in particular. Full REB approval was obtained on January 9, 2015.  

Workshop 1: January 14, 2015

The first event took place on Wednesday, January 14, 2015. Waste plastics were collected from studio spaces and homes, to ensure that there were enough materials for the workshops. Eighteen participants were registered, however only ten were able to attend. These included artists, interested colleagues and some members of the general public who were all asked to sign consent forms. The workshop began with a PowerPoint presentation focussed on plastics and related environmental issues and then showcased organizations such as the 5 Gyres Institute and Plastic Pollution Coalition and artists who are addressing these concerns. Project Vortex artists were highlighted for their use of socially engaged models and clean-up efforts, with particular attention paid to Aurora Robson's Project Vortex University and a 10 minute You-Tube video of the artist, produced by Bona Weis Media, was played. A brief discussion of the suggested readings followed.

The majority of participants had an existing interest in environmental issues and the implications of plastic waste and their insights and involvement were valuable. Some attendees posed questions regarding the nature of recycling

2 Research Ethics Board approval number 2015-01.
and the integrity of materials after they are reused, which led to questions about what happens to recyclable materials in Toronto after they are collected. All plastic waste originating in Ontario appears to be shipped abroad, however, this process is somewhat opaque to the consumer and therefore the question could not be answered with any certainty and solid evidence of this has still not been discovered.

Another question arose regarding the practice of Aurora Robson and where she sourced the plastics for her large-scale installations. This was in reference to a scene of her in what appears to be a recycling plant. She does not directly reference sourcing her materials in any other way than what is presented: by collecting plastics from the ocean. The discussion was lively and all participants expressed concern for the lack of information or transparency provided regarding recycling procedures in Ontario. It was generally agreed that it was an issue worth learning more about and that projects such as Polymers in Action were a viable way of learning about local gaps in knowledge so that they can be addressed. Links between Linda Weintraub's analysis of processed based practices being introduced into the gallery was discussed in relation to the formation of the web-based community and how the objects being produced during the session would form a body of such work for public viewing online.

Following the discussion and a short break, the workshop group began utilizing the plastics collected over the course of two months by various participants and basic supplies such as scissors, tape, duct tape, needles and hole
punches were made available. Supplies were limited to maximize creative solutions and problem solving when attempting to connect and fit pieces together. One participant supplied a drill set and rivets, expanding the possibilities of the materials through his use of equipment. Music was played to encourage a convivial atmosphere and a student photographer was present to document the event. This session ran for roughly 2 hours, with further exchanges of ideas and extended conversations about the ubiquity of plastic waste. Some interesting pieces were completed and photographed (see website for images).

Workshop 2: January 17, 2015

This second workshop took place on Saturday, January 17, 2015. Again, although twenty-two people were registered, only twelve participants were able to attend. The same format was applied: an introduction to the research via powerpoint, video presentation and brief discussion of the readings. The majority of participants were environmental activists, being associated with the interactive public art events like Figment, which added to the atmosphere of community building and socialization between participants from Figment, OCAD U and the general public.

The discussion of the readings was limited as most of the participants were familiar with ecological issues and the workshop format. One participant, a former employee of the City of Toronto and familiar with previous recycling processes in the city, offered information on what happens to objects from the
blue bin and informed the group that Toronto used to have a recycling plant that burned down a few years ago and has not been replaced. She expanded on this further with a brief outline of the monetary value of plastics and how it was financially viable to recycle plastics and can even be profitable. This insight helped to generate discussion among participants and helped to enliven the atmosphere because of the implications that it presented regarding Toronto’s recycling practices.

A few attendees were not artists, but this did not appear to hinder their engagement. Music was played again to further energize informal conversation and discussions. Drills and rivets made another appearance and were skilfully employed. Interestingly, the works produced were more experimental and pushed the limits of the plastics more than those from the previous group, perhaps due to the fact that participants were familiar with using repurposed materials in their work.

Review

The benefits of facilitating this kind of workshop model became apparent once the event had been publicly listed. Individuals from outside of OCAD showed interest in the workshops, which encouraged others to participate. The sharing of the listing on social media proved useful, as this is an avenue that most people seem to use to learn about local events.

Many of the attendees were from OCAD, or associated with community arts
projects, where interaction and collaboration are key. Aurora Robson's work was taken up as a major talking point, due to the amount of information provided on her practice, but the visuals provided during the YouTube video helped to inspire and invigorate the making sessions that followed.

The sessions themselves were engaging, and allowed for idea sharing and discussions to take place amongst participants. While the art pieces made were not all deemed (by the makers) to be exhibition worthy, they all showed individual approaches to the materials and the objects were idiosyncratic, funky and critical of consumerism. While the workshops were enjoyable, the making process reflected a level of criticality and inquiry that reflected the earlier discussions. Interestingly, many of the registered participants that were not able to attend expressed interest in the research and the upcoming website, as well as ongoing pedagogical models of the same nature.

Interviews

Five interviews followed the workshops. Two interviewees are practicing artists, one, Roberta Buiani, has a keen interest in the intersections between science and art and how these manifest in contemporary society. The other, Ana Jofre, is a current MFA candidate in OCAD's Interdisciplinary Art, Media and Design (IAMD) program. Another two OCAD MFA candidates in Criticism and Curatorial Practice (CCP), Geneviève Wallen and Matthew Kyba and a member of the public, Emily Smith, also agreed to answer questions about their
experiences within the sessions. All conversations were recorded, with consent, to better transcribe and analyze responses. The interviews were intended to provide an insight into the successes or failures of the workshop models employed, as well as gauging interest in the formation of sustained educational programs such as this.

Interview Analysis

The range of responses provided by the interviewees assisted with a broader understanding of their experiences, as well as the strengths and weaknesses of the workshop model. All the interviewees were positive about the format, particularly the presentation of information on the environmental implications posed by plastic waste and Aurora Robson's practice. No one explicitly identified themselves as an environmentalist, however, they all expressed concern with the current situation of waste disposal and recycling practices, plus a desire to act more responsibly regarding the environment as a result of their participation. Generally, they were critical of current recycling practices and two individuals clearly expressed their belief that current social practices do not truly work to address environmental issues.

The opening PowerPoint presentation was seen as helpful and provided a clear context for the research and rationale for running the workshops in this particular format and the general feedback indicated that this was a good way to begin the session. The videos of Aurora Robson's interview inspired participants
and helped expand the possibilities of what they could make. The interviewees all supported the importance of engaging with environmental issues through the act of making and it was seen as a beneficial method of fostering environmental literacy within educational institutions. They all stated that they enjoyed the session that they had attended and a desire to see similar models in place and enthusiasm for the formation of the locally focussed online platform. The responses were all positive regarding the benefits of continued educational art-making and craftivist programs based on this model.

Critical Review

Despite the majority of attendees expressing their positive feedback on the sessions, some crucial points would need to be addressed in future versions of this model. Firstly, advertising of the event was limited due to time and financial constraints. Posters were not used and even though the basic design was complete, it was thought that without a clear image to convey the intent of the workshop that they would not be effective. A clear visual representation in the form of posters would have helped to increase attendance, especially for advertising off campus in community centers and other schools. Additionally, broader email circulation to a larger community would have expanded engagement outside of familiar networks.

Secondly, the length of the workshops would have been more effective if they were longer. As this was a first attempt at running this program, it served well to have a shorter, more diverse group of people. However, this proved
detrimental to the creativity of many participants, as they felt that they could not produce something they were particularly proud of within the short time frame. An extended series of workshops with a first session dedicated to presentation, discussion and critical dialogue, followed by three or four longer making sessions would allow for participants to discover the capabilities and limitations of the material and explore more practical possibilities was suggested. This particular point was discussed in detail with the interviewees and will inform future event planning.

Thirdly, the discussion of the readings was limited and not a determining factor in the making session due to various external factors that prevented some participants from reading the articles. However, interviewees saw it as an important additional contextualization of artistic practices that engage with ecological issues.

In future iterations of this model, it would be helpful to use readings that provide direct engagement with the ideas being presented, to allow for greater critical dialogue and feedback from attendees. Engaging with participants over a longer time period would provide for clearer direction and more planning regarding the objects being made and their purpose/relevance within a broader visual landscape of eco-arts practices.

Lastly, it should be noted that all the participants interviewed had existing concerns about plastic pollution. They clarified that sustainability and dissemination of these ideas and practices can only be assured if notions of
environmental stewardship spread outside of these two workshop groups. Although social media and online sharing will play a role in the distribution, they can only do so much. What is needed is collaboration with other artists, curators, institutions and communities, where creativity can play a role in encouraging more consciousness about the environment, plastics and their detrimental effects. With this in mind, some collaborative exercises are being planned for the coming months.

The Future of *Polymers in Action*

Roberta Buiani, a workshop participant and interviewee has expressed interest in setting up a discussion panel combining this research with scientific research and artistic practices. Buiani is the curator of a group of local scientists and artists called ArtSci Salon. She organizes monthly public events and a yearly series of talks where the intersection between science and art are discussed. Once the website for *Polymers in Action* has been launched, she has requested the project information and URL to feature on the ArtSci Salon site, to expand the audience and engagement. As well as this, Buiani has invited me to take part in a panel discussion on the project (date to be confirmed) and potentially assist with the planning of future ArtSci Salon events.

In addition to this, multiple attendees expressed interest in future workshops. As the aim of this research is to create sustained engagement and expand the community, it is hoped that this will be possible in the near future.
made an application to Artscape Youngplace (AYP) for the Resident Teacher program for 2015. Unfortunately, while I was not successful, an offer of complimentary membership has been offered, which will enable me to use studio spaces at a discounted rate for a full year. This will allow the development of an expanded model and through repeat programs and engagement with a wider and a more socially and culturally diverse participant pool, a more refined model can be achieved.

Website

The REB approval of the use of information for the website is based on the site being hosted in Canada. Given these conditions a local host, Green Geeks, was found that adheres to these conditions. Green Geeks was chosen because of their environmentally conscious approach to providing high quality service. They are one of the leading green web-hosting service providers and their policies regarding carbon offsetting and environmental stewardship aligns well with the focus of this project.\(^3\)

The Polymers in Action website was initially intended to provide participant involvement with the development of the content. Through ongoing contributions to the site, artists would be able to upload their project images and information as they happen. This is proving to be a difficult model to employ, given the current low level of exposure the project has received and may be

revisited as an option in the future. For now, I will remain the sole contributor until a local network is established. Once this has occurred, I will remain the site editor, curator and administrator.

The website uses a Wordpress blog-style format, as this facilitates easy updates and displays post information in a reverse chronological order. By using this method, the most recent and relevant projects will be displayed first, allowing for more exposure to projects in progress and recently completed. The site will have a main “About” section where the inspiration and reasoning will be accessible, a “Similar Projects” section where the efforts of Robson, Klauss and Bustamante are detailed and a “Local Projects” section where workshops based in Toronto will be featured. The site will include images of various workshops and will be updated regularly to ensure that a sustained engagement can be achieved. It is also hoped that by continuing to run Polymers in Action outside of OCAD a firmer connection with Project Vortex artists can be established with possible future collaborative projects a possibility.

Conclusion

The development and planning of Polymers in Action has been an informative and educational process for all involved. By planning workshops with a socially engaged theme, I have gained a thorough understanding of best practices for event organization and execution. The PowerPoint and discussions

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4 All artists featured on the site have granted permissions.
used were beneficial for creating a dialogue and providing context for participants. While interviewing participants has been a helpful way of engaging with attendees individually, to better understand the critical elements that can be improved upon. Through community engagement at OCAD, I have discovered like-minded artists and members of the public who are as interested in addressing environmental issues through art making. The workshops have proved beneficial for bringing people together and engaging them with notions of environmental literacy and the formation of local socially engaged educational projects. It has also allowed for an opening up of potential art activist and craftivist practices within OCAD and Toronto.

The online presence of Polymers in Action can be found at polymersinaction.ca. The website currently displays a brief “About” section, “Similar Projects” and three posts about the development and rationale for the project. Forthcoming posts will publicize upcoming workshops at AYP and all other iterations of Polymers in Action as well as any steps towards curriculum development and any moves to engage local recycling policies. It is my hope that this project and website will continue to generate interest and move towards a sustainable model that will be repeated in multiple locations around Toronto.