A hidden (re)connection is stronger than an obvious one

'The arts' of channeling social learning in Southern marginalized communities

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Abstract:

Marginalized communities in Southern contexts are among those most vulnerable to the effects of our drastically changing climate and environmental systems. Therefore, pathways leading to the transformation of our unsustainable systems, structures, and behaviors affecting these communities must be explored. To achieve transformation, some researchers argue that *social learning* is one such pathway. Emerging research at the nexus of art and sustainability science suggests that artistic methods may possess social learning capacities that may transform the unsustainable systems affecting marginalized communities in these contexts.

This thesis will explore *how art can play a role in social learning processes for Southern marginalized communities*. To gain a better understanding of the potential of the arts in this context, four artistic projects based in Pakistan, Morocco, Peru, and Ecuador were selected for this study. A grounded theory approach was employed to analyze qualitative data collected from in-depth artist interviews, associated project documentation, artistic works, and multimedia content.

Results from the data analysis indicated that the artists have (1) highly nuanced problem framings which link urbanization, development, normative aspects, and lack of human-nature connections to drivers of social-ecological challenges in the respective contexts; (2) the artist projects and the artistic methods used, facilitated a variety of social-ecological interactions and/or connected broader audiences to social-ecological challenges of the marginalized groups; and (3) 3 out of 4 artists claimed that the projects empowered the marginalized groups in the respective contexts.

The artist projects revealed that they facilitated processes of social learning through their nuanced and contextually relevant framings that addressed the complexity of social and environmental challenges present in the various Southern contexts. Furthermore, the analysis suggested that certain artistic methods were more conducive to facilitating social learning processes than others. Despite climate and environmental change uncertainties in Southern contexts, the four cases provided examples of potential sustainability applications of artistic methods for addressing present and future sustainability challenges.

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1 Introduction

1.1 Research Problem

Many are calling for transformational responses to our most pressing human-induced sustainability challenges (Chapin et al., 2010; Folke et al., 2010; O'Brien, 2012). These challenges range from the pollution of our ecological bodies, biodiversity loss, and land-use changes (Rockström et al., 2009; Steffen et al., 2011). However, one of the most prominent of these sustainability challenges is climate change (Kates, Travis & Wilbanks; 2012). There is little doubt that the effects of climate change are experienced unequally across our global societies and has resulted in different "winners and losers" (Harrison et al., 2018; Koutroulis, 2019). Moreover, extensive evidence has asserted that the most vulnerable and marginalized groups, especially those in Southern regions who have high natural-resource dependency, will experience tremendous challenges adapting to the effects of our rapidly changing climate systems (Harrison et al., 2018; Shi et al., 2016; Thomas & Twyman, 2005). Therefore, it is of great urgency to find adaptive and transformative solutions for these marginalized groups in the South.

The scale of these challenges is severe and requires transformations that extend to both knowledge production and the larger society (Tàbara et al., 2019). Existing knowledge-related problems were made evident; for example, in a recent EU-commissioned, multi-institutional study aimed at increasing the understanding of extreme climate scenarios (Capela Lourenço et al., 2019). In this study, respondents working in climate change adaptation and mitigation claimed that their inaction against beyond-2°C scenarios is due to the lack of available information about the scenarios itself (Capela Lourenço et al., 2019). In addition, with the most severe impacts projected to be realized not until the second half of the century, these decision-makers do not factor extreme scenario preventative measures into their decision-making processes, which highlights a knowledge-to-action void needing to be filled (Capela Lourenço et al. 2019). In spite of these findings, as well as the publication and promotion of numerous climate change studies (Clarke et al., 2014), we have come to understand that information alone has not been an impetus for sufficient action to prevent the ever-escalating changes to our climate systems that are most severely impacting ecologies and societies in the global South (Leiserowitz, 2006; Norgaard, 2011). Thus, these problems present a need to seek novel ways to interact with our existing knowledge systems and 'more-than-rational' processes that will result in meaningful climate preparations for the most vulnerable and marginalized in Southern environments (Galafassi et al., 2018; Lam et al., 2020).

Recent climate change literature urges that the adaptation to and mitigation of extreme climate scenarios are dependent upon the transformation of institutions and knowledge system interactions driving the behaviors of unsustainability (Rathwell & Armitage, 2016; Tàbara et al., 2019). Though there is no single, coherent definition or theoretical concept of transformation across peer-reviewed literature focusing on social and ecological change, according to Feola (2014), the prevailing use of the concept is utilized as "a metaphor to convey the idea of fundamental systemic or radical change" of our systems and institutions that facilitate social-ecological interactions of unsustainability (Feola, 2014 p. 379; Tàbara, 2017). There are 'transformational adaptations' which focus on novel technological applications and human adaptations at large scales that result in fundamental changes in livelihood and/or land uses (Kates, Travis & Wilbanks, 2012; Feola, 2014), and there are concepts of 'social transformations' that discuss the role of human agency to affect unsustainable systems (O'Brien & Barnett, 2013). Hence, there are various theories of how transformation may come about. Understandings of social change are one of the classic preoccupations of the social sciences.

A wide body of research suggests that transformations may be achieved via processes of *social learning* (Wals, 2007; Reed et al., 2010). Social learning can be defined as "the cultural and structural processes through which human societies reframe their worldviews and establish new patterns of interaction with biophysical systems" (Tàbara, 2013 p. 253). Like the concept of transformations, social learning is often applied across various disciplines and is fused with other concepts (Reed et al., 2010). However, comprehensive reviews of social learning suggest that its essence lies in facilitating novel ways of knowing and processes in which people may engage, learn, interact and reflect on their worldviews, norms, and belief systems through experiential ways (Wals, 2007; Reed et al., 2010). To show that social learning has taken place Reed et al., (2010) explains that:

- "a change in understanding has taken place in the individuals involved;"
- "this change goes beyond the individual and becomes situated within wider social units or communities of practice; and"
- "occurs through social interactions and processes between actors within a social network." (p.1)

Some of these processes associate with deep human aspects, such as values and beliefs that shape our worldview (Göpel, 2016; O'Brien, 2018). Therefore, this suggests that some of the solutions that will help abate the social-ecological precarity of marginalized communities in the South may need to emerge from the cultural sphere (Adger et al., 2013).

Emerging research at the nexus of art and sustainability science claims that 'the arts' possess characteristics of social learning relevant for facilitating processes that may transform the systems of unsustainability that reinforce the precarity of Southern lives and environments (Kosmala & Imas, 2016; Tàbara, St. Clair & Hermansen 2017; Galafassi et al., 2018; Tàbara et al., 2019). Dieleman (2008) explains that "art is in essence exploring, shaping, testing and challenging reality and images, thoughts and definitions of reality" (Dieleman, 2008 p. 2). Unlike many institutions of modernity (Kagan, 2012), researchers contend that art has the ability to bridge knowledge systems through its innate recognition of complexity and contradiction and capacity to rouse reflexivity to affect worldviews (Kagan, 2015; Rathwell & Armitage, 2016).

1.2 Research Questions

To understand the utility of art for social learning processes, the aim of this research will explore the following question:

How can art play a role in social learning processes for Southern marginalized communities?

Furthermore, I will be using the following sub-research questions below to provide greater insight into my primary research question:

- Sub RQ1: How are the artists problematizing the social-ecological challenges they are trying to address in each context?
- Sub RQ2: What kinds of interactions do the artistic projects facilitate with its social-ecological context?
- Sub RQ3: What are the social-ecological impacts of the projects?

1.3 Thesis Structure

I will first begin by outlining my case selection process and will follow this with an explanation of my grounded-theory approach and methods for data collection and analysis. In section three, I will provide an overview of the four, select Southern-based artistic projects used as the case studies for this thesis. In the fourth section, I present my results according to the three aforementioned sub-research questions. In the final sections, I will conclude with a discussion about the relevance of my results for social learning and sustainability science.

2 Methodology

2.1 Cases selection

I selected the cases for this thesis through my correspondences with a European cultural institution that partners with cultural heritage and arts-based social change projects in Southern regions. After several correspondences, the cultural institution informant led me to a database of 35 environmental projects they were sponsoring in 2018 and 2019. The sponsorship program was to award one-year funding grants (fifteen projects in 2018 and twenty projects in 2019) to high-quality artistic projects pursuing environmental change. These 35 projects were selected amongst hundreds of applicants across Southern regions who were subjected to a rigorous months-long evaluation process that would eventually determine the projects that would receive funding. This evaluation process was reassuring for me as this guaranteed that the artistic projects were of sufficient quality and professionalism to use as the centerpiece of my thesis.

Prior to choosing the artists I would contact for in-depth interviews, the cultural institution informant recommended that I choose projects awarded from the 2018 batch of projects, as their year-long funding cycles would have ended in late-2019 and any realized impacts of the projects would be more visible in comparison to the batch of projects awarded in 2019. Taking this suggestion into account, I created an artistic project selection criterion to help guide my decision-making when choosing the artistic projects from the environmental project database provided by the informant. The artistic projects had to:

1) Connect to climate change processes and/or challenges;
2) Address challenges of marginalized groups and;
3) Have been implemented and ongoing for at least one year.

With this criterion, I believed it would help me to select cases most suitable for answering my research question.

Of the fifteen projects from the 2018 database, eight projects met the criterion listed above. I then contacted the eight artists for interviews, where shortly after, all eight artists responded and agreed to hold interviews with me. However, due to the onset of COVID-19, communication breakdowns ensued and only four out of the eight artists maintained communication with me through the pandemic and agreed to proceed with conducting in-depth interviews.

2.2 Data collection

I conducted four, one to two-hour semi-structured interviews via Skype and WhatsApp with the artists and key personnel who were the creators and visionaries of the artist projects at the center of this thesis. I developed an interview guide that was both informed by social learning literature but also used questions that aimed to gain deeper insight into the projects, their impacts, and the perspective of the artist on other relevant topic areas. In many instances, I would end questions with "…in *your* perspective?" or "…in *your* view?" so that I could differentiate the artist's voice from more generalized positions and opinions on certain topics.

In addition to the in-depth interviews, I received unpublished supplementary documents, interviews, images, and videos about the projects from the artists. I also sourced additional text, visual and audio data from the artists, project websites and social media accounts.

My secondary data consisted of three in-depth interviews with three European cultural institutions that supplied background information into the contexts in which the four artist projects worked. Similar information was also collected from other key informants via email, telephone, in-person discussions who were cultural practitioners employed at museums, municipalities, and artists working in climate or social change-related projects.

2.3 Data Analysis

I employed a grounded theory method in which I combined deductive and inductive coding data analysis to help formulate a theory about the phenomena emerging from my case studies. My justification for employing this approach was to minimize the imposition of pre-determined theoretical lenses onto a project and cultural context where I possess minimal knowledge and access to information. One of the strengths of the grounded theory method, particularly through its inductive processes, is that it allows the data to speak for itself (Hennink, Hutter & Bailey 2011). Letting the data speak for itself facilitates the emergence of contextual symbols and meanings that will create a more nuanced understanding of the social context and the influence of human agency within the social environment (Hennink, Hutter & Bailey 2011). Considering that the data used for this thesis was the subjective impressions of four artists relating to a piece of their own work, this grounded method seemed most appropriate. Conversely, the inability to interview the marginalized groups who participated in the artist projects, due to language barriers and time constraints—thus facilitating a

singular perspective—prohibited me from leveraging the full potential of the grounded theory method.

I chose not to employ other methods such as a discourse analysis, for example, because this method focuses on the use of language and its relationship to its contextual meaning (Paltridge, 2012). The method is argued to be highly interpretive and centralizes the analyst's views of the contextual meaning (Paltridge, 2012 p. 198), which I aim to avoid as I am culturally distant from all cases in comparison to the artists, who are either from the local context of the case or are from the country which the case is situated. Furthermore, as this method is text-focused, it could not be applied in my analyses of the artistic processes used in the cases.

During my data analysis phase, I tried adhering to the grounded theory data analysis principles outlined in Hennink, Hutter & Bailey (2011, p. 209) from the transcript preparation stage all the way to the theory development stage.

From the transcript preparation stage, I immediately began transcribing the interviews after each interview was completed. While transcribing, I made sure to anonymize the data even when some artists expressed at the start of the interview their indifference in me performing the task when explaining to them their interviewee rights. However, a challenge I did experience during the transcription stage was with some of the English accents of some of the artists, which required me to listen to segments of the interview repeatedly until I fully understood what the artist was explaining. This process, though time-consuming, was, in fact, very helpful as it required me to take detailed notes about the data and reflect more on the content to ensure that I had fully grasped what the artist was articulating. Any data that I felt I could not decipher, whether it was related to a lost telephone connection or accent-related, I would send the data sections that I could not transcribe to the artist and request for clarification.

After transcribing the interview data, I imported my interview data and supplementary document data into NVivo12 software to make annotations and more detailed notes of themes that emerged, repetitions of topics, and *in vivo* codes when applicable. An example of an *in vivo* code that I annotated in the data was one artist's references to 'mestizos,' which is a Spanish-language term to describe individuals who are of mixed European and indigenous descent. The artist used this word to discuss the fraught history of race relations between 'mestizos' and indigenous peoples in Ecuador, where indigenous groups were often discriminated against by 'mestizos.' Identifying such phrases like this added more nuance to the data and helped me to gain a deeper sense of the context.

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From the annotated data, I would create code groupings of my annotations and would categorize them into different attributes that would help me to compare the data. For example, I had some code groupings in the data called 'creating sense of pride,' 'inclusion,' 'participation' which I placed all into the umbrella category 'empowerment,' where this became one of the several impacts of the artistic projects from the artists' perspective. I followed this process of annotation and coding with the interview data and supplementary documentation; however, with the text, video, and audio data from the artworks themselves, I did not analyze in this fashion. I mostly used the multimedia data and artworks for analyzing Sub RQ2, where I was interested in understanding the social-ecological interactions that the projects facilitated. Thus, the text, video, and audio data were used in a descriptive fashion where I described how the artworks were utilized by participants and audience members or how the artistic workshops functioned.

Finally, when closing out the grounded theory process, I juxtaposed my findings of the artist framings informed against key peer-reviewed articles on contemporary environmental framings and social learning to explain the phenomena present in my cases while making sure to remain grounded in the data to avoid imposing assumptions.

2.4 Limitations

The inability to interview members from the marginalized communities in each context prohibited my ability to present a more robust analysis that is a more representative, multi-perspective depiction of the respective social environments, their challenges as well as the impacts of the artistic projects. Furthermore, I was unable to conduct this depth of research due to language barriers, lack of time allotted to conduct this research, and COVID-19. I was provided several Spanish language videos by one of the artists and was offered supplementary documentation in French by another artist, which I had to exclude or deny because of my limitations in these languages. Therefore, I was limited to artist interviews that were conducted in English and English-language supplementary documentation and multimedia content provided by the artist. These factors may contribute to a more limited understanding of the phenomena present in each case, which is why I designed my research around understanding the context, the projects, and their impacts from the perspective of the artists who are from the respective contexts. On the other hand, I am able to offer four artist's perspectives on what the roles of their projects were and how they relate to those places, and how these links contributed to their outcomes.

3 Background

3.1 Case summaries

The following section will present a brief overview of the four Southern-based artistic projects selected according to the selection criterion introduced in the methodology section. The four projects located in Pakistan, Ecuador, Peru, and Morocco (see figure 1) touch on a range of land-use change, pollution, and climate change-related sustainability challenges affecting the various marginalized groups in each context. The overview will provide greater insight into the artists' methods, their artistic processes, and how these processes engage with the social and environmental sustainability challenges present in each context.
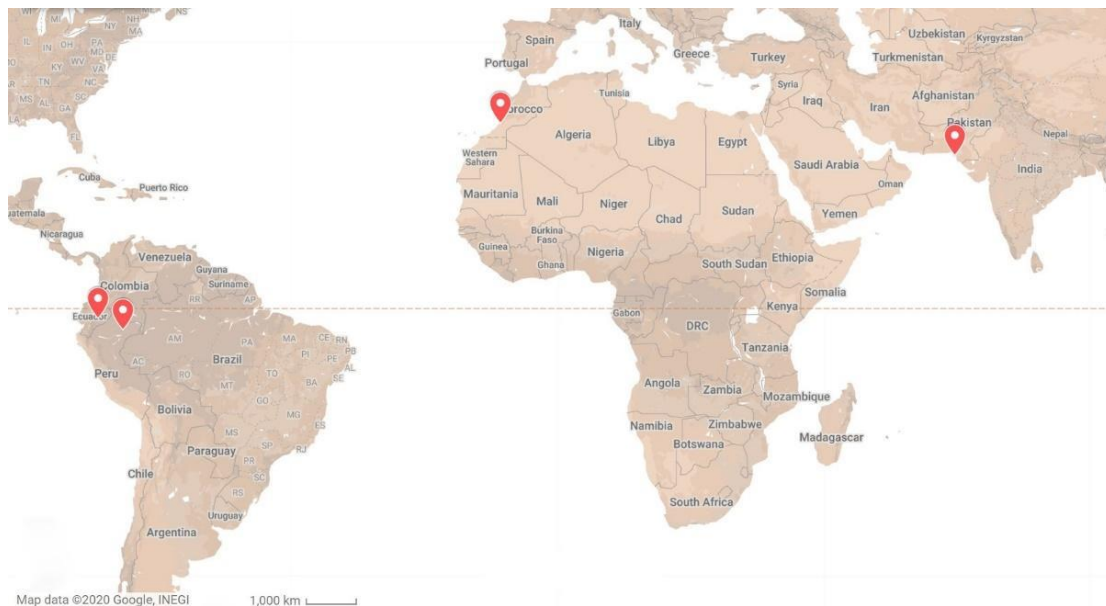
Figure 1. Artist project locations. *(Own map).*

3.1.1 Karachi Beach Radio

Karachi Beach Radio (KBR), which started in 2019, is an early-stage artistic project and platform that facilitates and shares oral traditions and other forms of human and non-human sonic accounts and expressions transmitted through storytelling, folklore, ballads, ambient sounds, etc. Through the collection and sharing of these sonic recordings, the artists explore and attempt to deepen an understanding of the changes in the coastal ecologies, the shared cultural and natural resources (i.e.,

"the commons"), and the growing privatization and development that are affecting two of the last remaining public spaces located on the beaches of Karachi, Pakistan.

Not to be mistaken for a radio station, the artists at their current project stage, collect content through recording sonic experimentations during beach excursions and impromptu encounters with beach-goers who are often from working-class, underrepresented ethnicities or indigenous communities who then volunteer to share their lores with KBR. The platform provides those who speak both the marginalized and unmarginalized languages of the area to record their stories and knowledge, thus creating the opportunity for knowledge to be "decentered from the privilege of who gets to share their perspective." Once the stories are recorded, the content is then uploaded to their website for the public sphere to freely access (see appendix 4). The project also does onsite broadcasting of their recordings and completed their first broadcasting of an ecological short story at a local radio station in March 2020. In future project stages, recordings will be shared on other audio platforms via podcast and radio programs that will reach wider audiences.

As the project is still in its nascent development stages, only 25 audio tracks have been published on their website since July 2019. The stories, histories, and ambient sound topics range from ecological memories of the city, tales of the beach, fading memories of the Karachi soundscape, and more. The challenge for KBR moving forward is dependent upon the grant or seed funding they are able to receive to continue developing the project, the amount of content they are able to publish, and the broadcasting channels that they are able to access to reach each a wider audience.

3.1.2 Secret Sarayaku

Secret Sarayaku is a visual storytelling and transmedia project documenting the indigenous-West cultural exchange and the nature-spiritual interconnection and philosophy of the indigenous Kichwa people of Sarayaku of the Ecuadorian Amazon region. The artist became intrigued by the Kichwa after learning of their non-violent activism and organizing prowess during their decade-long battle against state-supported oil development on their territorial lands. Their efforts resulted in a landmark court victory against the Ecuadorian state at the Inter-American Court of Human Rights in 2012, which prohibited the Ecuadorian state from executing development projects on indigenous territorial lands without prior consultation of indigenous groups.

The photography project at Sarayaku, which began in 2015, originally started as an inquiry into the activism that led to the indigenous group's 2012 court victory. However, what became more intriguing to the artist over time was the Kichwa's use of technology as a tool to engage and raise awareness about Kichwa culture, language, and environmental concerns in addition to the Kichwa's open-minded

reception of Western influence. Furthermore, the artist used his artistic medium to explore the philosophy of the Kichwa called the 'Kawsak Sacha' or the "Living Forest," which is the belief that all things have a life, is interconnected, and has a spirit.

The artist has concluded his documentation of the Secret Sarayaku project, and parts of this work were released in Summer 2020, which included a photography book, an interactive website with images, video, audio, and a blog that the Kichwa manage themselves. Other parts of the project that include an audio-play podcast, museum exhibition, and documentary screenings of the Secret Sarayaku project are scheduled to release in Fall 2020. Therefore, the overall impact of this project is yet to be realized.

3.1.3 Shipibo: The Art of Peace

Shipibo: The Art of Peace is a series of instructional workshops in audio-visual production tools, designed for the indigenous Shipibo-Konibo peoples of the Peruvian Amazon. The project was initiated in 2017 by a Lima-based audio-visual communication and training organization that has extensive experience in the production of social, environmental, and educational films and videos for public and private-sector institutions and organizations. For over half a decade, the production company has directed much of its focus on generating Peruvian indigenous audio-visual content in indigenous languages.

The inspiration for this project is part of the artist's overarching goal to produce a documentary depicting the story of events in the historic collective action efforts of the Shipibo people against an oil multinational corporation violating indigenous lands. From 2008-2012 the Shipibo organized football tournaments in surrounding indigenous communities to raise awareness about the actions and illusory guarantees made by the transnationals who were seeking to conduct operations on their territorial lands. As the tournaments progressed, the cohesion between the different indigenous communities strengthened to the point where they collectively took non-violent action against the oil multinational that resulted in the suspension of oil operations on their indigenous lands.

To tell this story from the experiences of the Shipibo peoples, the artist determined that the participatory video method of filmmaking was most suited to recreate this tale. A pilot workshop consisting of ten Shipibo participants was then arranged where they were trained in the usage of audio-visual production tools, as gaining familiarity with the equipment and exploring the subjects, audio-visual aesthetics, and stories in their own way are essential to the methodology. What ensued after the training and the Shipibo's return from filming astounded the audio-visual artists. The storytelling and aesthetic techniques presented in their film, from what the audio-visual artists claim,

was completely unique. The Shipibo were somehow able to audiovisually illustrate their devout interconnection and deep knowledge of the local flora and fauna through the film, even though their style completely defied classical, occidental filmmaking conventions. The successful pilot workshop led to the creation of additional workshops across five different Shipibo communities where 30 participants were chosen to form groups to make additional videos.

Subsequent stages of this project will feature additional training workshops where more participatory videos will be produced by the indigenous communities. The videos will then be entered in an indigenous peoples film festival featuring Shipibo films and other indigenous communities across Peru. From this film festival, indigenous filmmakers will be chosen to receive special in-depth training by various audio-visual specialists to participate in the filming of the official documentary of the 2008-2012 Shipibo events. The scheduled release of the documentary will be ahead of the proposed construction of the Peru-Brazil transnational highway, which will traverse directly through Shipibo territory, which will forever transform their livelihood.

3.1.4 Landscape of Care: Weaving within the Oasis

Landscape of Care: Weaving within the Oasis (LoC) is a multi-medium artistic project which explores the social and ecological connections between the oasis and the city. Located in the southern city of Tiznit, Morocco, the rapid urban expansion experienced in the city over the past 40 years has put immense pressure on the natural resources of Tiznit and its surrounding oasis communities. The climate crisis has exacerbated this pressure placed on the limited natural resources, thus playing a stronger role in the transformation of oasis livelihoods and the city-oasis interconnection.

The project thus far has been implemented in two phases. The first phase comprised of three separate workshops, co-created and facilitated by collaborations between local and international artists. The initial youth-focused workshop, for children ages five to eleven, attempted to deepen the children's bond with the oasis via sensory and immersive interactions, such as smelling, feeling, and listening to specific oasis attributes, while also creating masks with these attributes and waste materials found in the oasis (see appendix 4). The workshop culminated with a performance in an International Sustainability Week event held in Tiznit, where this performance symbolized the city's dependence on the oasis resources and urban waste disposed of in the oasis. Following the first workshop was a one-week international masterclass led by Moroccan and international artists who specialize in traditional craftsmanship and the use of dry vegetation, similar to the endemic vegetation of the oasis. The objective of this workshop was to brainstorm about the creations that could be made within the oasis.

Phase two of the project is designed with the intention to combine design, agriculture, and construction. This is done through the development of a "masterpiece" product, which attempts to revamp local traditional uses and applications of the palm tree. For this phase, which is still ongoing, the artist collaborated with two critically acclaimed Moroccan artist-designers who developed a sophisticated 'palm curtain.' The artists worked in a joint effort with 65 women from various local women's cooperatives, where these cooperatives were responsible for weaving components of the products, which were then given to the Moroccan artist-designers for final assembly. The palm tree, which once had many practical and functional uses in Moroccan society, has been phased out and replaced by modern substitutes such as concrete and plastics. The inclusion of women in this process is essential as men often work in remote locations while many women remain in the oasis to perform reproductive labor activities with few other productive labor opportunities available in the oasis. Thus, the artist believes by revamping the use of the omnipresent palm via artistic methods, it will facilitate a renewed interest of the palm into various areas of Moroccan society.

4 Results

4.1 Sub-Research Question 1

How are the artists problematizing the social-ecological challenges they are trying to address in each context?

The effects of urbanization and development that are creating land-use changes in each context—to varying degrees—are primarily factored into the four artists' problematization of the social-ecological challenges that their projects are addressing. While all the artists do discuss the effects of climate change and pollution in their respective contexts (see table 1), these challenges were secondary to the urbanization and development-driven land-use changes in their problem framings. Furthermore, all four projects link these processes of urbanization and development to significant past, current, and/or anticipated changes to the livelihoods of the marginalized groups represented in each case.

Table 1. Environmental themes present in the cases. *(Own table).*

Environment and Climate Challenges	Themes
Land-use Change	Urbanization and development driving land and water degradation.
Climate Change	Extreme weather patterns and sea-level rise.
Pollution	Air, land, and water pollution affecting wildlife and human health.

KBR

The KBR case problematizes the social-ecological challenges as an issue of 'the commons.' Urbanization and development in Karachi, from the artist's view, have led to "a large amount of indigenous flora and fauna that get[s] destroyed," which affects all those, both human and non-human, that take part in the commons. The marginalized, as she describes, "are a big part of this." In this case, the artist does not solely attribute 'the shrinking of the commons' entirely to the processes of urbanization and development, but also emphasizes the lack of (inter)connection that humans have with their ecologies. This problematization intersection of urbanization/development and human connection to the ecologies is also distinct in the LoC and Sarayaku cases as well. However, where KBR differs, in part, is where this disconnection lies. The artist states that:

> The problem of development and urbanization is it kind of loses its connection to flora/fauna environment completely. The connection to land is lost. And the histories and stories of land is lost and [there's] this constant aspiration for more [and] new. I think that these stories help to slow people down and really listen, observe, and feel something that connects them to place.

Taking into account the importance that the artist has placed onto stories, the artist suggests that there may be certain political elements impeding the ability to transmit stories that enable social-ecological connections to take place. The artist states that:

> Sindhi language is also one that has been sort of by-passed in the educational curriculum because of the sort of national languages being imposed on Pakistan after partition. So there is a history of kind of creating a sense of unity by language, but also sort of marginalizing existing languages […] So it's a kind of national politics playing a more significant role in local histories.

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All in all, the artist, to an extent, takes into account urbanization, development, the absence of human connection to the land, and political factors as problems needing to be addressed in the local context.

LoC

As previously mentioned, this case shares similarities with the KBR and Sarayaku cases in the sense that the artist problematizes the processes of urbanization, development, and lack of human connection to the local ecology as contributing factors to the social-ecological challenges in the southern Moroccan context. The artist explains that since the 1950s, Tiznit, which was once a small village, had grown 15-fold and had placed tremendous strain on the natural resources found in Tiznit and surrounding oases. The artist explained during the interview that:

> With the urban increase, the oasis was slowly, slowly destroyed because there was a lack of water. A part of the water for the oasis was used by the city, and after, half of the trees [in the oasis] disappeared [because of] the lack of water.

We see that in this case, water was the natural resource that was problematized. In comparison to all other cases, this was the only case that problematizes a specific natural resource in its context. For example, KBR problematizes an ecological space and more broadly problematizes the flora, fauna, and other ecologies in its context; however, LoC is focused on a very specific natural resource.

The artist also notes that urbanization has affected the relationship that the locals have with the local environment. In a project summary report provided by the artist, the artist highlighted that:

> One of the findings that most captured our attention is how the city's rate of growth has disconnected people – or newcomers never did connect – from the sensuous and material offerings of the place.

The artist also alludes that this detachment from the local environment has contributed to waste management challenges, which has resulted in the accumulation of artificial waste in the oasis.

Secret Sarayaku

During the interview with the artist, he stated that "the environment is one of the key aspects of this work" and seems to discover and problematize the social-ecological challenges in the context via his exploration of the Kichwa's cyberactivism. When I asked the artist to describe the problem at Sarayaku in relation to his project, he explained that:

I got more interested not only in [their environmental fight against the Ecuadorian government in 2012] but also in another kind of activism, which is the cyberactivism. So [the Kichwa] are quite active online […] and what they do is like a communication strategy, like communicating what they believe in, why it is important to preserve nature and gathering allies and support from the Western world, from the outside world to their cause so that they can put more pressure on the Ecuadorian government or big oil companies not to get into [Sarayaku] again.

We can see here that the artist's interests lie in the communicative aspects of Kichwa life, specifically, how they communicate their beliefs and how they communicate with the outside world to prevent further development of their lands. In effect, the artist seems to problematize these two facets of external communication of the Kichwa. The artist elucidates this point by stating that:

Two structures of the project is, on one hand, documenting this West-indigenous cultural exchange, and on the other is trying to see what you cannot see with their eyes or with their cameras—this more spiritual interconnectedness with nature.

However, compared to all the other cases, which strongly problematizes aspects of development in their respective contexts, development in this case, is more indirectly problematized as the communication by the Kichwa is done in part to prevent future development of their lands by the Ecuadorian government and oil companies.

As previously stated, this case strongly identifies with KBR and LoC in respect to its inquiry into the human connection with the environment; however, the three cases differ on how this human-nature connection is problematized. The Sarayaku case looks at the Kichwa's unique human-nature interconnection and seeks to understand this relationship that is difficult to see with one's eyes. Whereas KBR and LoC problematize the disconnection that the locals in their respective contexts have with their ecologies from more nuanced perspectives.

Shipibo: The Art of Peace
In this case, the artist did not problematize as many social-ecological challenges as all the other cases. The artist did note that the Shipibo people are experiencing a host of climate change-related challenges regarding prolonged droughts, increased forest fires, and rainy season flooding; however, the artist's problematization was instead more intricately linked to challenges of development and land-use change that the Shipibo people encountered in their recent past with unsolicited oil

development on their territory and the impending construction of transportation infrastructure through Shipibo lands in the near future. The artist stated that:

> Ten years ago [the Shipibo] were more isolated than they are now. And now there is a road, a highway that [the State is] building to connect to Brazil and goes exactly through their territory. So this will change forever the way they have always been. This is a major, major change in their lives because to go to their community, now you have to go by boat between two and a half, four hours from the closest city. And with the highway, this will mean that they will be only 25 minutes away. And also that they will have like lots of transit and trucks and all kinds of people who walking in their community.

The artist claims that this is problematic as there is wide political and media consensus currently supporting development, which had left the Shipibo resigned to "think that's the future," whereas this sentiment was not the case in the past when the Shipibo were compelled to take action against oil development on their land, according to the artist. This threatens "their culture, their knowledge, their language," which the artist claims "are issues that are really of concern for them."

To conclude, we have seen that in relation to Sub RQ1, the artists in all four cases shared similarities in the problematization of urbanization and development within their respective contexts. In the KBR and LoC cases, the artists attributed these processes to directly affecting their respective ecologies and the deeper connections that the marginalized groups have with their ecologies. Like these two cases, the Sarayaku artist problematized the human-nature connection, but instead, problematized the *communication of* the human-nature interconnection aspect by the Kichwa community. This human-nature interconnection is not problematized in the Shipibo case; however, this does not imply that the human-nature connection is absent in the Shipibo case.

4.2 Sub-Research Question 2

What kinds of interactions do the artistic projects facilitate with its social-ecological context?

According to the artists, each case seemed to facilitate social-ecological interactions with its context. The human interactions with the ecologies seemed to be facilitated primarily in two ways: 1) via 'digital interfaces' and 2) workshopping methods. On one end, projects like Secret Sarayaku used photos, videos, audio, and text to create a range of digital and print interfaces to draw the international community into the world of the Kichwa peoples. On the other end, cases like LoC are hyperlocal,

where its creative workshops have local participants physically engage and experiment with natural materials and indigenous flora found in their immediate surroundings.

Secret Sarayaku

Secret Sarayaku, KBR, and Shipibo use storytelling as a central component in facilitating human interactions with the contexts' ecologies; however, each case integrates storytelling in varying degrees to achieve these interactions. In the Secret Sarayaku case, for example, the artist stated that accessibility to Sarayaku territory is limited to only those who are from the Kichwa community or individuals who obtain special permission from Sarayaku leadership. This, in turn, makes it challenging for outsiders to physically engage with the Kichwa people, their territory, and also to understand their philosophy of 'Kawsak Sacha,' which the artist aimed to explore via his audio-visual documentation methods. Further, since the Kichwa community already exhibits a deep sense of interconnectivity with its local ecology, the facilitation of novel, local social-ecological interactions—via the artist's chosen method of exploration—is minimal. However, this is contrasted by the types of interaction that this project can facilitate outside the physical boundaries of Sarayaku territory. The artist highlights that younger generations are "all about transmedia," and in order to engage them, photos alone are not enough. The artist claims that this is why he uses multiple text, audio, and visual formats to create content that communicates the Kawsak Sacha philosophy. And this content is communicated via an interactive digital magazine, a website, podcast as well as a Kichwa-managed blog and Instagram account using transmedia content created by the artist. For the first time, the Kawsak Sacha philosophy and the ecological values that it embodies are communicated in ways and forms to global audiences at a scale that has not been achieved in the past. Therefore, through these various channels, this artistic project facilitates stronger local-to-global links that create a more robust elucidation of the livelihood and social-ecological challenges of the Kichwa.

KBR

KBR has facilitated, at the very least, cross-class and cross-generational interactions with the broadcasting of one of its stories through a popular local radio station and its associated streaming platforms. Via this radio station, which is primarily English language-based and broadcasts mostly western musical content, KBR's content breaks the mold of local radio programming norms and initiates a conversation with, what the artist claims, is a generation of "millennials and young professionals who spend a lot of time in their cars and don't necessarily come out to stop at the sea." The broadcasted story titled *Asha's Desire,* which was written and read by a renowned local poet/author, is about an aging widow who has a profound connection and love for *Chotta Kinara* or 'Little Beach' (one of Karachi's last remaining public spaces) and decides to live in a hut at Chotta Kinara

to spend her remaining days together with the beach. In the story, she speaks very fondly of Chotta Kinara; however, she is conflicted with it as its waves had claimed the lives of many who fell victim to its strong currents. Despite Asha's contempt of the sea for causing these tragic incidents, the story concludes by her coming to terms with her feelings of unconditional love towards Chotta Kinara.

The KBR artist describes that stories of this type were contributed by "people who remember histories of the city and write about them in a language that may not be even be given the kind of status that English may be [given] in Pakistan [or] Karachi." In a sense, this exemplifies a cross-generational and cross-class dialogue about the city's ecologies and uses storytelling, imbued with emotion and contextual salience, as a communicative conduit between various social divides. The comments section of the radio station's streaming platform, where the story is published, creates a digital public space for younger generations to comment and further discuss the content. In addition, the growing repository of audio stories—along with other recordings of the sounds of the beach, whether natural, human, or mechanical—that are compiled on the KBR website creates an alternative for those that are distant from certain social groups or ecological spaces within the city and invites them to engage remotely with historical and contemporary social and ecological content matter in novel ways.

Shipibo: The Art of Peace
The participatory video workshops in the Shipibo case contrasts the outward reaching digital platforms used by the Sarayaku and KBR cases by placing the artistic tools directly in the hands of the group that is being marginalized, allowing them to explore subjects in relation to their environment at their own free will. The artist stated that:

> Everything they can see—that we can't—make them really record everything from a very different point of view from any occidental educated person would do. You know? Because if they see, for instance, a papaya tree, they will see like the flowers and the leaves and the trunk, and they will tell you what parts are used for what. The approach is completely different, and the subjects they deal with are completely different.

This is evidence that, when given the proper tools and basic knowledge to operate them, the Shipibo found new ways of communicating subjects that are of salience to them. In essence, the artist explains that they are creating "videos made by them and for them." Furthermore, these workshops are not only tailored to create an environment where Shipibo people gather to have conversations about the videos they created, but they are also designed to collectively engage in discussions about the cultural elements of their lives. The artist explained that:

Our idea is that every workshop, we do not talk about film as how it should be done or what have you. But we do talk about cultural aspects of their lives. We do talk about their history. We do talk about what is different about the past, the present and what they will do for the future. So the products that are being done, in a way, get us closer to the commonwealth thinking that is happening around the workshops.

The artist made it explicit on several occasions about the workshop's intent to facilitate discussions about Shipibo social and cultural elements, rather than about filmmaking conventions. Thus, the participatory video method combined with the workshop created an opportunity to visualize, communicate, and explore environmental and cultural matters that are of deep relevance to the lives of the Shipibo.

LoC

Where KBR, Sarayaku, and Shipibo cases used audio and visual tools to communicate stories that facilitate various social-ecological interactions, LoC used physical and nearly full-sensory experiences in its workshops to induce social-ecological interactions within its context. Firstly, the children's workshops were designed for the children to "rediscover the oasis" (see figure 1). During the workshops, the children were required to "look, feel, touch, smell and listen" to the flora, fauna, and the manmade waste material that was present in the oasis. For example, during the workshop, children had to lie on the ground and listen to the natural sounds emerging from the oasis; they had to imagine themselves as various plants and creatures who are living in the oasis; and they made masks and costumes out of the natural and waste material found in the oasis, according to the artist. Aside from such sensory activities, children were also required to learn the uses of the oasis materials in both agricultural and architectural settings.

In addition, there are negative social stigmas attached to the oasis in which the children and women's creative workshops actively try to dispel through its sensory experiences according to the data. In the artist's research about the oasis, she found that:

> Among locals, there is an overall negative perception and treatment of this formerly vital place, with some people using it as a trash dump and most women viewing it as unsafe: a 'no go' area. In our research, we were astonished to learn that many people in Tiznit had never set foot in the oasis even though they live just a stone's throw away. Some were not even aware of its existence!

This finding by the artist suggests the role and relevance of the creative workshops regarding social-ecological interactions. Though the oasis is considered a 'no go' zone by women, local women were most present in all of the LoC workshops, according to the artist. In 2-out-of-3 workshops, women were either the primary participants, in which during the weaving workshops, they were the fabricators of the palm curtains, or they were secondary participants when they accompanied their children to the children's workshops.

To conclude, the data seems to indicate that there was a wide range of social-ecological interactions that the four cases facilitated within and outside of the project's local context through either digital interfaces or workshopping methods. According to the Shipibo and LoC artists, who used workshopping methods to facilitate social-ecological interactions, the projects had a high level of active participation of the marginalized group in the artistic or creative processes for extended periods of time. During these workshops, discussions and reflection about its local ecologies and associated social and cultural challenges were integral parts of the workshopping process, according to the artists. These processes were not as strong in the Sarayaku and KBR cases; however, their capacity to invite and reach a wider audience to interact with their respective social-ecological contexts via their digital interfaces was far greater than in the Shipibo and LoC cases.

Figure 1. LoC children's workshop [Image]. (Provided by Landscape of Care).

4.3 Sub-Research Question 3

What are the social-ecological impacts of the projects?

Secret Sarayaku

The direct impact on the Kichwa people is challenging to identify since the launch of the artist's transmedia project did not occur until late-June 2020, while other project phases are due to launch in September 2020. However, if we measure the impact in relation to the artist's communications-related problematization referenced in Sub RQ1, which links to the artist's aim to communicate the Kichwa's worldview of human-nature interconnectedness, then the impact of the project seems to be substantial in terms of its outreach potential. Since 2018 the photos from the Secret Sarayaku project have been published in multiple languages in a wide range of online and offline publications, such as The New York Times, Vogue, Amnesty International, GEO Hors-Serie and also shared on social media by influential environmental movements such as Fridays For Future (see figure 2). These publications and social media accounts that have published and shared the Secret Sarayaku project collectively amass well over a million readers and followers worldwide at the very least. According to the artist, this type of exposure, which accurately depicts the essence of the Kichwa people, is extremely important for them due to their negative firsthand encounters with inaccurate, romanticized depictions of their way of living. The artist notes that:

> Whenever [Secret Sarayaku project] was published also in these journals, I was really proud *not* on the fact of being published there, but on the fact that several leaders of the [Kichwa] community shared that work, and they were like really proud, and they identified themselves with that. So some of them even wrote on Facebook, "Yeah, this is how we are," and I was like, "Well, I was like, really, really subjective," and but still, they identify themselves like that. And there were pictures of dead animals and that kind of stuff that pictures that I was a bit scared of. And they were like, "Yes, this is how we are, and everything is not like white or black. It's like there's these shades of grey and, we also need to eat so we have to hunt any animals, but we also protect them."

This quote by the artist where he references conversations with the Kichwa leaders about his work, indicates the pride that the Kichwa take in their accurate representation. Thus, regarding the impacts, we can see by the Kichwas' response to the Secret Sarayaku project, through its accurate representation of the Kichwa way of life, may have empowered the Kichwa by providing them a greater sense of pride.

Figure 2. Screenshots of various popular publications and social media accounts featuring the Secret Sarayaku project. (DI Vogue, 2020; Fridays for Future Hannover; 2020; Vallejo, 2020;)

Shipibo: The Art of Peace

Aside from the new skills that the Shipibo people acquired in the use of audiovisual tools, the artist primarily referenced two impacts that the project has made so far. The project, from the perspective of the artist, has improved knowledge exchange and has helped to empower the Shipibo people in specific ways.

During the artist interview, the artist enthusiastically mentioned on several occasions about the impact the films created by the Shipibo people had on himself and other workshop facilitators, which, judging by the tone of the artist, he had not suspected to be influenced in such a way. The artist said about the Shipibo films that:

> [The films] really moves people, it really has something that moves you, that really makes you think, makes you feel. So for me, it was like, "What is this?", you know? What is this kind of film that doesn't really move you from the content and doesn't move you from the aesthetics, you know? What is this generating, that it moves you as a people, as a person? And I think that's a little bit of the magic of this kind of workshops. The kind of work with energy. They share the energy of the people in another plane, you know? I don't know how to tell…in another different line that we're used to.

As shown by the artist's comments, the Shipibo people had demonstrated to the artist the potential and power of their filmmaking capabilities. The artist project had set out to support the Shipibo people in various ways, however, the project seems to have greatly impacted the artist in a way that he was unable to imagine and articulate.

The artist had similar sentiments when reflecting on the overall design and progress of the workshops so far. The artist stated that:

> We just realized that the way that we were approaching it in the beginning was not the right way. Now that we have learned that way that we have been approaching with the thanks to the XYZ Fund has really had a very different impact on the community. Because [the Shipibo] really feel that everything they've done is theirs, you know? It has come from their own inspiration, from their own knowledge. And that's very powerful because it's something I've been teaching in film school for six years, and I never managed to make what we were hoping to do with this workshop.

Here we see that there were impacts once again on the artist, which demonstrates the knowledge exchange between the artist and the Shipibo and also the sense of ownership that the artist claimed the Shipibo people experienced, which may reflect an increase in empowerment.

LoC

The primary data analyzed for this project suggests that LoC had the most comprehensive impacts in comparison to all other projects. According to the artist, the project impacts ranged from the creation of new employment opportunities, skill development of women, and even impact on local educational institutions.

Firstly, through the women's weaving workshops, the artist said that the "women develop[ed] skills in weaving plant material into carpets and artistic objects." This was not only integral for their personal

and social wellbeing, the artist suggests, but also for the creation of new employment opportunities in Tiznit and the surrounding oasis communities. In relation to this, the artist explained that:

> For women, it was quite important impact because it opened opportunities for the women to have new activities [that] is going to create income for these women. So they were really happy to participate through the process, but also it was a way to open opportunities to have new incomes. And with this income comes more autonomy because they can have the most important place into the family. So I think it was one of the first very simple impacts.

A second impact that the artist referenced was regarding the growth of the children's environmental workshop over the course of several months. In the project summary report provided by the artist, it noted that from July to November 2019, it provided these workshops to nearly 450 children in several villages across the region. More precisely:

> 318 students from Tiznit's elementary school [called] Lalla Maryem, participated in six follow-up workshops [...] The theme of the workshops, 'Architecture without architects,' invited the children to experiment with clay and plant fibers from the Targua oasis. Similar workshops were conducted in the Souss Massa villages of Ifri Imagdidane (with 33 participating children), Adkhs (74 children), and Tadakouse (24 children).

Thus, from a quantitative respect, it seems that the children's environmental workshops were able to reach a substantial number of children in the span of five months. As a result of this growth and popularity, the artist noted that the "Tiznit Ministry of Education has indicated it will officially endorse these workshops as part of the public school program."

We can see that the artist claimed that the project had an institutional impact in which the local ministry of education is promoting the implementation of the environmental workshops while also creating employment opportunities for women, all while developing their skills in using local, natural materials to develop products. Even with these various impacts referenced by the artist, the artist still believes that the project has not realized its full potential. During the interview, the artist stated that:

> Now it's too short in time because for us, we can see the impact just after five years of project. So you see, [the project has been ongoing for only] one year, one year and a half, so it's too short to say, "Oh, that's the impact." We have some [impacts], [but] if you want to think about social change you need five years to say what was the impact and what was the social change.

Hence, the artist claims that given more time, the real impacts will be recognized.

According to the artist, the impact of the workshops varied and was largely dependent upon temporal aspects, aims, and audience. Of the three workshops, the artist claimed that the youth workshop had the greatest impact as the youth workshops were replicated in many schools and villages across the region, had greater spatial reach, high youth participation rates, and substantial pedagogical influence. Conversely, though the second workshop garnered public attention due to the international appeal of the foreign artists, the artist claims that the workshop had a much lower impact due to low local participation rates, participation exclusivity, and short workshop duration.

KBR

In relation to all other projects, KBR is at its earliest phase of what the artist hopes to be a long-term project with no definitive ending. Therefore, the impacts of this project are most challenging to identify and evaluate at this stage in KBR's project lifecycle, especially in relation to how KBR has problematized their social-ecological context. So far, however, there are metrics available that helps to gain a better understanding of their potential outreach. For instance, on KBR's Facebook and Instagram accounts combined, KBR has approximately 850 followers, and their outreach via the first radio broadcasting of their audio story, *Asha's Desire,* is estimated by the artist to be approximately 1000 listeners. However, these figures provide little insight into how the project and its audio stories are connecting local listeners to the local ecologies or to grander ecological processes and contexts. In relation to their radio broadcasting, the artist noted that:

> We haven't had that kind of success we were hoping for with the local radio stations, and that's really important for us. So we wanted more airtime, and we're not charging their radio stations. And I think that they're hesitant because their business models indicate that they make the most money if they just do music and perhaps a few ads.

Their difficulties in breaking through the barriers of traditional mediums that can transmit their recordings to larger audiences have seemed to have impeded their ability to have larger-scale impacts come into fruition. Conversely, at a much smaller scale, the artist claimed that:

> So many people who have called and talked about how amazing [the recordings] are and people like my father, our families, our parents are a very different generation, and they disconnected from us, our generation of people who were speaking different languages and much more aimed towards leaving the country and going abroad. It's people like them [who] also become involved and invested and started sharing stories. People from the neighborhood in Seaview, at larger neighborhood, middle-class neighborhood, lower-middle-class

neighborhood was involved in the same way.

According to this claim, it seems as though the artist is indicating that people from different socio-economic classes and generations are contributing to the artist's project and responding positively towards it. Although this is pertinent information told by the artist, formulating conclusions about the project's impact on the local environment and marginalized groups within the artist's context is challenging without additional supporting evidence from the artist or participants,

Overall, the four cases yielded a variety of impacts, according to the artists. The LoC, Shipibo, and Sarayaku projects were, according to the artists, able to empower their respective marginalized groups through skills development while giving their respective marginalized groups a greater sense of ownership by enabling them to produce their own work. Furthermore, an accurate representation of the marginalized group has shown to increase pride, as the artist discussed in the Sarayaku case. Conversely, the LoC artist believed that a better understanding of the project's social impacts would occur after several more years of implementation, which puts into perspective KBR's difficulty in yielding more tangible impacts at the project's current stage of development. We have seen that the social impacts are clearer to identify while the environmental impacts are more opaque at this point in time as the projects seem to address intrinsic, human-nature relational elements that require additional data collection from participants and observation of the projects over a more prolonged period of time. Furthermore, environmental impacts may need longer-term observation in order for the impacts to be measured. The artistic processes and the social-ecological interactions that the projects facilitate leaves room for theoretical speculation on what potential impacts could occur.

5 Discussion

5.1 Artist framings vs. contemporary framings

Throughout my research design process, from research question formulation to case selection, my aim was to explore the nexus of art, marginalized groups, and climate change. Therefore, amongst the range of sustainability challenges to explore, I tried compartmentalizing my research into the 'box' of climate change. What I discovered through analyzing the problem framings of the artists is that their framings did not fit easily into the confines of this box. Instead, what the artist framing analysis revealed is that *climate change is only but one of several interrelated challenges while the artists' framings spoke to broader challenges and left space for the exploration of and between various sustainability challenges*. The data suggests that the artists, their projects, and their framings seem to

be substantially grounded in the respective social-ecological contexts and salient to some of the challenges experienced by the respective marginalized communities. Their framings not only reflected the changing ecologies in their respective contexts, but their framings also addressed local histories, politics, norms and values, and social-ecological interconnections. The artist framings were not bound to the confines of one sustainability challenge in particular, and the data further suggests that the artists found value in dealing with these very specific contextual challenges. This is perhaps one of the ways the arts can be of use for the marginalized communities facing precarious social-ecological challenges and for sustainability science. The artist framings (as well as the social-ecological interactions that the projects facilitated) blurred the lines between the ecological, the social, the cultural, and the political. The way the artists framed the problems may improve the salience of the projects that work with marginalized communities, which may lead to the integration of their experiences and challenges into problem-solving strategies. Even researchers are calling for more of such framings (Hackmann, Moser & Claire, 2014) since framings are argued to dictate and shape how issues are perceived by the public (Lakoff, 2010). This indicates that problems are seldomly framed this way, despite such framings demonstrating a positive influence on public perceptions regarding the challenging experiences of marginalized groups in Southern contexts (Kosmala & Imas; 2016).

Contemporary framings of the environment, according to Palsson (2013), have been criticized for its inability to encompass the breadth and complexity of contemporary environmental challenges, unlike the framings displayed by the artist projects. Palsson argues that contemporary environmental framing is "reduced to an object of natural science" (Palsson, 2013 p. 4). In other words, how we currently define and frame 'environmental' does not reflect the true complexity of environmental problems present in current times (Palsson, 2013). The 'environment' to a considerable degree, is represented and framed through a natural science lens via concepts that are largely concerned with global level carbon concentrations and 'tipping points' (Rockström et al., 2009; Lenton, 2010) rather than speaking to the diversity of drivers propelling and reinforcing these problems that exist below the global level and/or in specific contexts (Palsson, 2013). Therefore, what is 'environmental' may need to resemble more of how the four artists framed the environment in their respective contexts.

The artist framings cannot go without criticisms, however. Some of the artist framings may be interpreted as too simplistic, such as in the Shipibo case where the artist primarily frames the contextual problem as development and land-use change-related. Simpler framings may be at risk of becoming overshadowed by projects with similar framings, yet with solutions that suit the status quo. These solutions may take greater priority over the artistic projects as eco-art projects are not nearly as common in the South as they are in the North (Galafassi et al., 2018). To avoid this from happening,

perhaps one solution could be to incorporate framings that may potentially emerge from the artistic processes that are normative or values-based, which could provide depth to the framing. For example, the project impact data from the Shipibo case suggested that Shipibo people were empowered in various ways. Incorporating elements connected to empowerment could make the framings more robust, which could be of greater service to both the project and the Shipibo people.

5.2 Artist projects and social learning

In Table 2, we can see the LoC and Shipibo projects were the only two artist projects to facilitate at least one of the processes of social learning as defined by Reed et al. (2010). Moreover, of the three different social learning processes, these two cases were only able to "demonstrate that a change in understanding has taken place" (Reed et al., 2010 p. 1). This was done by the projects helping to develop new skills (also known as single-loop learning) for the marginalized groups in their respective projects, i.e., the LoC project taught weaving skills to women and also taught children how to use oasis natural materials in agricultural and architectural settings; and the Shipibo project taught the Shipibo people how to how to use audio-visual tools. Furthermore, the Shipibo people were also able to demonstrate values-based, reflexive learning (also known as triple-loop learning) where the Shipibo people, according to the artist, reflected on their history and cultural aspects of their lives during the workshops.

Table 2. Artistic projects that facilitate processes of social learning. *(Own table).*

Social Learning Processes	Artist Project
1) "Demonstrate that a change in understanding has taken place in the individuals involved."	LoC Shipibo
2) "Demonstrate that this change goes beyond the individual and becomes situated within wider social units or communities of practice."	X
3) "Occur through social interactions and processes between actors within a social network."	X

Note. Social learning processes from Reed, M. S., Evely, A. C., Cundill, G., Fazey, I., Glass, J., Laing, A., ... & Stringer, L. C. (2010). What is social learning?. Ecology and Society, 15(4).

As the Shipibo and LoC cases were the only two projects to employ the workshop method and to facilitate one of the social learning processes, this may suggest that the workshop method may be

more conducive to facilitating social learning processes. Without data from the marginalized groups represented in the two cases, I cannot identify whether the other two social learning processes were facilitated, as the second and third social learning processes in table 2 are dependent upon single, double, or triple-loop learning to be spread to broader social circles and networks (Wals, 2007; Reed et al., 2010).

In contrast, the KBR and Sarayaku projects did not facilitate any of the three social learning processes. The projects seemed to rely substantially on their web-based platforms to transmit the content that was either artist-created or co-created by individual members of the marginalized groups. There was little indication based on SubRQ2 results that the marginalized communities or the audiences of the artistic projects were able to develop new skills and practices, nor was there any indication that these two groups reflected on their norms and values, like the marginalized groups in the LoC and Shipibo cases.

One of the key problems identified by Reed et al. (2010) is that the concept of social learning is often identified by its outcomes, i.e., social learning *is* empowerment, or social learning *is* the improvement of social-ecological systems, for example. By examining the cases through a social learning lens, I was able to differentiate the social learning process from the various unintended outcomes that the projects created. In essence, it became evident by applying social learning to the cases that *the empowerment, outreach, and institutional changes were the positive by-products of the social learning processes rather than social learning processes in themselves.* The LoC project is a suitable example of this. It did not intentionally pursue empowerment; the intention of the project was to affect the human-environment connection between the oasis. One of the methods to achieve this was to introduce weaving to women and to teach children how to use oasis materials in agricultural settings. These were social learning processes. Through these processes, as indicated in the SubRQ3 results, the women were able to achieve economic empowerment, the children's workshops were able to spread to other schools, and the local education ministry promoted the use of the workshops in the schools as a result, according to the artist.

Although the LoC and Shipibo cases facilitated one of the social learning processes, it does not guarantee that it will lead to some form of transformation in their respective contexts. O'Brien (2012) explains that the concept of transformation can be subjective to an extent; transformation can be contextual, and the meaning of transformation, or the motives to pursue transformation—whether they are socially, environmentally, politically, or economically motivated—may vary between individuals, groups, and contexts (O'Brien, 2012). Without having a deep understanding of the social-

ecological nuances of each context, it is challenging to speculate what transformation could look like for the marginalized groups in the two contexts; however, the nuanced artist framings help provide greater insight into areas that may require transformation.

From a 'deliberate transformation' perspective (O'Brien, 2012), the outreach capacity that KBR and Sarayaku possess via their digital interfaces may be more conducive to some of the transformations required in our techno-social world (Chayko, 2014), as the two projects' technology-based platforms are able to connect individuals and groups at scales that can better match the pace of current global environmental changes (Christakis & Fowler, 2009; O'Brien, 2012). However, since social learning processes were not facilitated in these two cases according to the data, an important question to ask is how salient will similar art-facilitating technology-based platforms be for transforming the factors driving the challenges experienced by the marginalized communities in these cases and in other Southern contexts? Perhaps understanding the role of technology-integrated art platforms like KBR's and Sarayaku's may be useful for future transformations and global environmental change research.

6 Conclusion

The artist projects presented in this thesis provided several clues into the transformative capacity of art for Southern marginalized communities. By viewing the artists' framings, it put into perspective the limitations of contemporary environmental framings and highlighted the need to incorporate—in addition to ecological challenges—a broad range of normative, values-based, and historical factors that approach and address social-ecological challenges more holistically. These broader, contextually specific framings alone may help to paint a clearer picture of *what* may need to be transformed and *who* should partake in the transformation processes to improve ongoing climate and environmental change adaptation efforts in Southern contexts. However, as some artistic projects exhibited, too broad of framings may prevent salient questions about transforming these unsustainable systems that reinforce the precarity of marginalized communities from being asked. Nevertheless, the data suggested that the relevance of the artist problematization and framings of the projects cannot be overstated as they shaped the artistic processes, which therefore influenced its outcomes.

Additional questions can be raised about the effectiveness of specific artistic methods in facilitating social learning processes. While most of the artist projects were able to empower the marginalized groups or yield institutional impacts within the project's context according to the artists, however, not all were able to facilitate social learning processes. Despite these positive findings, more concrete

conclusions about art (in general) or the art projects' transformative capacity cannot be made without data from the marginalized groups.

Further research can try to identify artistic mediums, methods, and processes that are more conducive to facilitating social learning processes. The inclusion of the marginalized communities is necessary to gain a more robust understanding of the capacity of art to facilitate social learning processes in Southern contexts.

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8 Appendices

Appendix 1. interview guide

The Interview guide was informed partly by the literature. Other questions used were to learn more about the artistic processes, the project and the local context. There were impromptu questions asked outside of the interview guide if the artist raised issues that were relevant about the contextual nuances, marginalized groups or artistic processes.

Interview Guide- Artists

Date: 3/18/2020
Time start: 13:00
Time end: 13:16
Place: Skype
Interviewer: Parren Fountain
Interviewee: Respondent 1

Ethics, Interviewee Rights and Project Description (Hennink, Hutter & Bailey, 2011)**:**

Before we begin the study, I would like to ask for your permission to conduct this interview. All information collected during this information will be strictly used for research purposes and will be collected, analyzed and reported anonymously to ensure that your identity will be completely anonymous if you wish. You have the complete right to stop the interview at any time.

Once the research and analysis are complete, you can be notified of all findings and results if you wish.

Do you agree to proceed with this interview?

Art(ist)-related questions:
1. Could you describe the project/problem from your own perspective?
2. What inspired you to do this project?
3. What types of artistic mediums do you use?
4. What type of impact has your project made so far?
   Follow up: Do you measure success in any particular way?
5. What are your day-to-day challenges? What are your long-term challenges?
   Follow up: Are there issues maintaining the project financially?
6. What do you think art can achieve in this project that you think other methods (political, technological) cannot achieve?
   Follow-up: What do you hope to achieve in this project?
7. Why did you choose this particular artistic medium to address the problem as opposed to other mediums?

Follow up: How can radio highlight this problem differently from other artistic, creative or cultural mediums, such as visual art, performance art, design etc.?

8. What has been a key mini-project, event or experience in your work so far?
9. What is the relationship of the artists (especially photographers) with 'what or whom' they take photographs of (or participants) and how they think about responsibility for whatever happens with e.g. a community near the water…

Vulnerability & Marginalized Community questions:

10. How is your community being affected by climate change?
11. What marginalized groups are you trying to provide a platform for, or give voice to?
    - What are these groups vulnerable to?
12. What kind of vulnerabilities do you address in your projects? (Infrastructure, Health, Livelihood, food security, Provision of clean water, Sewage disposal)
    - Why is this group vulnerable?
13. What are the challenges that these marginalized groups encounter on a day-to-day? Both politically and economically?
14. How important is it for you to be part of the community or integrated into this particular community?
15. What kind of creativity did you observe within the community as a whole via this project?

Public questions:

16. How receptive has the public been towards your project? Who is your audience?
17. What is the public's perception of the cause of climate change effects and responsibility for acting?
18. What type of impact would you like for your project to ultimately have?

Closing:

19. How do you perceive the role of arts in addressing this marginalized communities affected by climate change?
20. What is the state of the arts and culture in your community/country? Is there a lot of institutional support?
21. Who are the artists that inspire you most?
22. What have you discovered so far in the project? What have you learned?
23. What do you wish you did better or differently?
24. Is there anything else that you'd like to add or comment on?

Appendix 2. Sample data analysis and coding

Project Impact Analysis

Project	Ref #	Data	Category/Theme	Notes
LoC	7	for women, it was quite important impact because it opened opportunities for the women to have new activities is going to create income for these women. So they were really happy to participate through the process, but also it was a way to open opportunities to have new incomes. And with this income comes more autonomy because they can have the most important place into the family. So I think it was one of the first very simple impacts.	Empowerment	participation is a form of empowerment according to Zimmerman
Sarayaku	2	whenever it was published also in these journals, I was really proud not on the fact of being published there, but on the fact that several leaders of the community shared that work, and they were like really proud and they identified themselves with that. So some of them even wrote on Facebook, "Yeah, this is how we are" and I was like, "Well, I was like, really, really subjective" and but still, they identify themselves like that. And there were pictures of dead animals and that kind of stuff that pictures that I was a bit scared of. And they were like, "Yes, this is how we are and everything is not like white or black. It's like there's this shades of grey and, we also need to eat so we have to hunt any animals, but we also protect them."	Empowerment	creating sense of pride for marginalized
Sarayaku	3	Yeah, so they are really active also outside of Ecuador, and they are really proud to be the leaders of the indigenous movement in Ecuador. So they are like these faces, these visible faces and a lot of their leaders, they travel around the world, go to conferences, go to the COP conferences about climate change, and they are really, really active in that sense. So they are they proud themselves [take pride in themselves, of being these leaders, these indigenous leaders. And the fact that some of these leaders scared that work, which is not in Spanish, I mean, okay, yes, the New York Times article was also in the Spanish page, but like articles that are in French or in English, they would share it saying, "Yes, this is how we are", and I know that audience is like an international audience.	Empowerment	creating sense of pride
Shipibo	3	The objective is the same. We just realized that the way that we were approaching it in the beginning was not the right way. Now that we have learned that way that we have been approaching with the thanks to the Prince Claus Fund has really had a very different impact on the community. Because they really feel that everything they've done is theirs, you know? It has come from their own inspiration, from their own knowledge. And that's very powerful because it's something I've been teaching in film school for six years and I never managed to make what we were hoping to do with this workshop, you know?	Empowerment	sense of ownership, sense of pride
LoC	7	For the first step, it was what is very simple impact, it's just because during the time that you have the workshop that people were happy. Because you never think about what it is to just be happy to do something or to participate in something. So the first for us what is very important is to make people happy to do something. Because most of the time the people have no opportunities to do something.	Inspiration	Happiness as a source of inspiration
KBR	1	"so many people who have called and talked about how amazing they are and people like my father, our families, our parents are a very different generation and they disconnected from us, our generation of people who were speaking different languages and much more aimed towards leaving the country and going abroad. It's people like them also become involved and invested and started sharing stories. People from the neighborhood in Seaview, at larger neighborhood, middle class neighborhood, lower middle class neighborhood was involved in the same way."	Knowledge	Source of knowledge exchange and knowledge creation. Discovery of agency of the marginalized through their stories. These projects are agency revealing
LoC	1	And it has a very strong impact the first workshop because in fact it was also a way for us and for all the association to have now young Moroccan were able to organize this kind of workshop. And so we duplicated a lot this kind of workshop with the kids. It's not only in Tiznit we've done other the workshop like that in other villages in the Souss-Massa area. And so it was the first one and it was very interesting because as the first workshop was also used to train the teachers to train the kids to train the kids in this open opportunities for one very important moments that we organize at six months later.	Knowledge	education knowledge and learning how to organize and conduct trainings and workshops in order to share exchange knowledge
LoC	2	So, it was interesting because you know, when you have to think about impact, it's interesting because for the Association for the local authorities, it was a way to, to be more aware about the oasis, but also and you have some, you know, some news is going to take picture to explain what the aim [is] of the master class for the association is quite interesting because for them, it's like recognition. So you have some international desire coming and organizing something thing in the oasis. It's like an international organization.	Knowledge	awareness about the place, the existence of place, the existence of the marginalized
LoC	7	The second one is for the kids, when we worked also with the teachers, the teachers [became] more aware of different ways to teach and to think about specific activities. We have a partnership with education and the schools. It was interesting for them because it was a way to think differently of what you can do with the kids.	Knowledge	Raise awareness about educational methods and pedagogy
LoC	7	The second one is for the kids, when we worked also with the teachers, the teachers [became] more aware of different ways to teach and to think about specific activities. We have a partnership with education and the schools. It was interesting for them because it was a way to think differently of what you can do with the kids.	Knowledge	Source of knowledge creation

Appendix 3. Qualitative data analysis sample – Project Impact

The numbers represent how many times the themes were referenced during the interviews. Keeping track of the frequency helped with the project comparisons. (Own table)

Project Impact References

	LoC	Sarayaku	Shipibo	KBR	Total
Empowerment	3	2	1	1	7
Knowledge	3	1	3	1	8
Reconnection	2	0	0	1	3
Inspiration	1	0	0	0	1
Curiosity	0	1	0	0	1
Accessibility	0	0	0	1	1
Sharing	0	0	0	1	1
Total	9	4	4	5	

The table below describes how the themes were defined when performing the coding and analysis. (Own table).

Project Impact Themes	
Impacts	Themes
Empowerment	Increasing pride, inclusion into processes, participation and inclusion in community.
Knowledge	Raising awareness about place, co-creation of new knowledge, new insights.
Reconnection	Use of artistic process to reconnect people to land, place and society.
Inspiration	Creation of joy and happiness.
Curiosity	Generation of public interest about marginalized community.
Accessibility	Accessibility to a platform or channel to be heard/to express one's voice.
Sharing	Motivation to share their stories.

Appendix 4. Images from projects.

Below are additional images from the project not already shown in the thesis.

Landscape of Care

Below are images of the various phases of the Landscape of Care project. (Images provided by Landscape of Care).
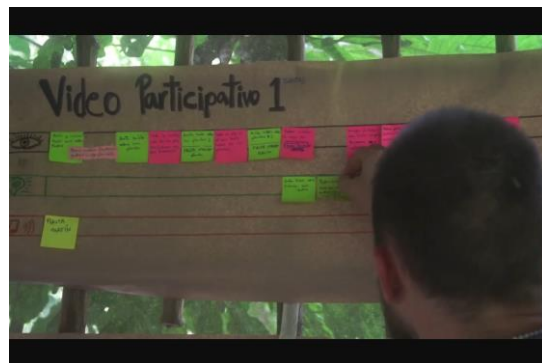

**Phase 1:
Workshop 1**

Phase 1:
Workshop 2

Phase 2:
Palm curtains

Shipibo: The Art of Peace
Screenshots taken from the video trailer of the artist's first participatory video workshop with the Shipibo people (Minkaprod, 2019).

Karachi Beach Radio

Screenshots of the KBR website that shows some of the audio content available on their website. The website is filled with audio clips of the sounds from Clifton and Little Beach and other poems and artistic expressions about the local ecology (Karachi Beach Radio, 2020).

Oct 22, 2019

On The Sea: A Story Of Seven Days

Attiya Dawood, a celebrated Sindhi and Urdu author, reflects on her time spent on the Little Beach with KBR. In this album she weaves together stories of seven days, each focused on a character from the beach.

more tracks

سمندر پر: سات دن کی کہانی

عطیہ داؤد، سندھی اور اردوزبان کی با کمال شاعرہ، چھوٹے کنارے پہ کراچی ساحل ریڈیو کے ساتھ اپنے وقت کے بارے میں سوچتی ہیں۔ اس البم میں وہ سات دنوں کی کہانیوں کے ساتھ ساتھ، سمندر کے سات کرداروں کو آپس میں بُنتی ہیں۔

اورلاوآزیں

Sept 24, 2019

(Fading) Collective Memory

The hypnotic rhythm of the waves, as they crash into one another, languishing towards the shore, mixing with the ever-familiar, ceaseless noise of human endeavor; the drumbeat of a Pashtun man, the calls of seaside hawkers and the slow and steady murmur of motorbikes careening past on the beach.
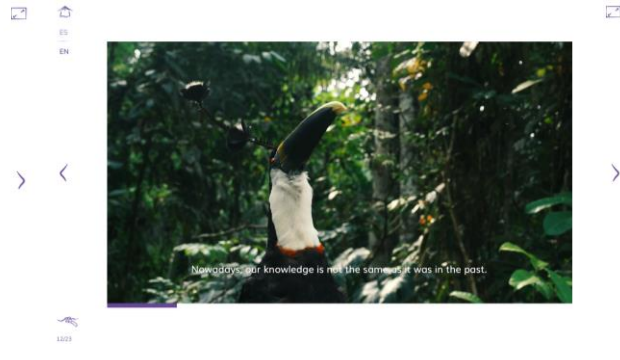
more tracks

(ماند پڑتی ہوئی) مجموعی یادیں

سرور میں ڈوبی لہروں کی تال، کہ جب وہ ایک دوسرے سے ٹکراتی، جھومتی ہوئی کنارے کوآلگیں تو ان میں جانی پہچانی، لامتنای، جدوجہد میں چور انسانی آوازیں بھی مل جائں؛ کسی پٹھان کے ڈھول کی تھاپ، کسی پھیری والے کی پکار اور موٹر سائیکل کی ہلکی لیکن مستحکم ساحل سمندر کے ساتھ جڑی سرسراہٹ سب ایک دوسرے میں گڈ مڈ

اورلاوآزیں

Secret Sarayaku

Below are screenshots of some of the transmedia content found on the Secret Sarayaku website. The website functions as an interactive book that has various chapters that uses images, texts and short documentary videos which goes into depth about the lives of the Kichwa and their human-nature philosophy—Kawsak Sacha. The Kichwa also have a self-managed blog on the website in which they use to communicate directly with their audience (Secret Sarayaku, 2020).

The oil company starts to dig the earth
near to where our rivers begin.

2017

The last day of the Uyantza Raymi celebration. One of the prostes, or festival sponsors, wears the pelts, feathers and heads of all the animals that his team managed to hunt. According to tradition, these pieces must be returned to the jungle to complete the cycle of life. The prostes is responsible for the ritual that closes this cycle.

SECRETO SARAYAKU

El Blog

Thank you! ¡Gracias!

📅 Mayo 26, 2020
🕐 Tiempo de lectura: 2 minutos

Thank you all for your support and immediate response to this emergency in the Amazon. We've almost reached our initial goal of $30K, but after a few days we are starting to understand the extent of the damage. It is beyond what we imagined, which is why we've raised the goal to $60K!

Dontate here: https://www.gofundme.com/f/indigenous-communities-flooding-amazon

Nuestro Instagram
@everydaysarayaku

far away — up close

New online magazine
Far Away - Up Close
features a new audia...

Photo by
@mishavallejo Oil is
the main component ...

SECRET SARAYAKU
HANNOVER

Online presentation of the web documentary
by Misha Vallejo at the LUMIX Festival.
taplink.cc/lumixfestival