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Department of Applied Materials

Global Solutions to Global Problems

- Worldwide Arts Initiatives Dealing with the Climate Crisis

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iv. Table of Contents

- List of illustrations
- Introduction
- Chapter 1 Leave the Land as You Found It.
 - 1.1. The Ecological Crisis
 - 1.2. Aboubakar Fofana Life Cycles of Garments and Indigo Dyeing
 - 1.3. Kerry Cahill The Lay of the Land Project
- Chapter 2 Shared Knowledge and Community Outreach
 - 2.1. Vivien Sansour Palestinian Heirloom Seed Library
 - 2.2. Future Farmers The Soil Kitchen
- Conclusion
- Bibliography

v. List of Illustrations

Fig 1. Aboubakar Fofana, Mood Indigo, 2010, available at https://www.aboubakarfofana.com/artists#/mood-indigo/> accessed January 2022

Fig 2. Fofana, Aboubakar, Les Arbres à Bleus, 2012, available at https://www.aboubakarfofana.com/artists#/mood-indigo/ accessed January 2022

Fig 3, Fofana, ye bolo ni Muso bolo (Harmony), 2018, available at https://www.1-54.com/marrakech/artists/fofana-aboubakar/ Accessed January 2022

Fig 4, Lay of the Land artist collective, Natural Inks and Dyes Samples, 2015 available at <www.layoftheland.ie> accessed November 2021

Fig 5, Lay of the Land artist collective,OI, 2015 available at <www.layoftheland.ie> accessed November 2021

Fig 6, Lay of the Land artist collective, Sea Cyanotype, 2015 available at <www.layoftheland.ie> accessed November 2021

Fig 7, Sansour, Vivien, The Palestinian Heirloom Seed Library, (2014) available at https://www.boerengroep.nl/sowing-seeds-of-freedom/> (accessed January 2022)

Fig 8 Future Farmers, The Soil Kitchen (2011) Available at https://www.futurefarmers.com/projects. (Accessed January 2022)

3

vi. Introduction

My practice presents an active response to the ecological crisis through the making of locally sourced pigments. It points to the need for engagement with the environment and a focus on what is 'around' rather than 'ahead'. Many of the pigments are made from the most overlooked elements of my surroundings, such as weeds, wildflowers and rusted nails; paying tribute to the often discarded aspects of nature. These pigments and their marks serve as a mapping and distilling of place, time and land. Visually, the pigment marks present the interplay of natural elements willing to be transformed upon interaction with each other and the surface. An illustration and exploration of the multispecies relationalities within our ecosystem; a celebration of the biodiversity that upholds it. The unpredictable and ephemeral nature of the pigments, as seen by their ever-changing tonalities both in the jar and on the surfaces reflect the continuous 'making and un-making' of our environment and it's ever-evolving states.

Additionally, a key part of my practice are the intergenerational family workshops where attendees can participate in the practices of foraging, ink making and painting. Establishing an entry point for dialogue and action around sustainable practices. It is this shared community experience, where conversation and curiosity are central which underscores the concept of the work. My passion for ecological sustainability and belief in the potential of art and artists in furthering this ambition has inspired and informed the research for this project. Through my research I wanted to investigate a global perspective on art initiatives tackling the climate crisis, specifically looking at artists who take local resources and traditions as a starting point, and for whom community outreach is key to promoting long-lasting impact and solutions.

I will discuss the works of Aboubakar Fofana, Kari Cahill, Vivien Sansour and The Future Farmers. These artists/artist collectives take the resources and traditions of their local surroundings as a starting point. They use their art to point to the potential of human systems providing for human needs, pointing to a collaborative and interdependent future ecology. By drawing on issues surrounding heritage and biodiversity, their work exposes the destruction and continued latent threats to their communities at the hands of corporate capitalism and in the name of 'progress'. I will critically evaluate the ecological ambitions of the work, situating it with particular reference to The Routledge Companion to Contemporary Art, Visual Culture, and Climate Change, by TJ Demos et al, Staying With the Trouble by Donna Harway and The Art of Noticing by Anna Tsing. I will begin Chapter one with a thorough and up to date contextual overview of the ecological crisis. Given the detail and interwoven complexity of the climate crisis, this introduction will serve as the main backdrop for both Chapters One and Two.

Chapter 1: Leave the Land As you Found It.

1.1 The Ecological Crisis.

A growing awareness of the ecological crisis increasingly defines the era, marked by impending temperature and sea rises, drought and water scarcity, mass species extinction and ubiquitous toxicity. The IPCC forecasts a vast increase in climate migration and a continued struggle for resource distribution. (Demos, 2021). All of which are certain to be catastrophes of the poor. (Purdy, 2015)

Cop26

This year's Cop26 placed the stark and dire warnings of climate breakdown once again in the spotlight. Following on from the Paris accord in 2015, where world leaders agreed to limit global warming to 1.5 degrees celsius, 197 heads of state congregated to present their latest pledges and ambitions for securing a global net zero by the middle of the century.(Thomson, 2021). In the opening ceremony, President of Barbados, Mia Mottley reminded world leaders of the lessons of the pandemic "national solutions to global problems don't work." (Farand, 2021). She questioned the possibility of peace and prosperity in the global north while the remaining two thirds of the world are left to ruin and reminded them that for many countries a 2 degree celsius increase will mean a death sentence (Farand, 2021). Similar pleas were echoed by the Finance Minister of Tuvalu who warned "Our land is fast disappearing, Tuvalu is literally sinking" (Mathiesen, 2021).

Meanwhile outside the conference, protests persisted throughout the streets of Glasgow expressing deep frustrations at the leaders who haven't delivered on their promises and called on politicians to turn the rhetoric into meaningful actions (Brooks, 2021). Demonstrations headed by prominent climate activist, Greta Thunberg who criticized the conference as a mere PR stunt, "a global north greenwashing festival" citing a lack of drastic action and pointing to the destructive system which continues to profit from the

6

exploitation of people, nature and the destruction of living conditions, present and future (Green, 2021). The summit concluded with a last minute deal to 'phase down' on coal rather than 'phase out' (Irfan, 2021). Thus, are we finally waking up to the realities of Climate Change or will it all continue to be 'business as usual'? In this essay I will explore the root causes of climate disaster, the implications of it's untethered ruin and how artists can and should aid in the ambition for justice.

Power Struggles and Discrimination

The Bolivarian Alliance for the Peoples of Our America points out that "In the 21st Century it is impossible to achieve full human rights protection if at the same time we do not recognize and defend the rights of the planet earth and nature" (Demos, 2015). TJ Demos argues that environmental transformations cannot be separated from the power struggles found in class or ethnicity and outlines how climate change and global warming are intrinsic products of colonial and imperial power structures; The climate crisis is "at once ecological, economic, political, and cultural." (Demos, 2020).

This past decade has seen the uprising of the Occupy Wall Street and Black Lives Matter movements; a revolt against failing financial systems, the privatization of basic human needs and systemic racism. Naiomi Klein asks 'What does black lives matter have to do with climate change'? "Everything", she says.(Klein, 2014). Klein reminds us that the " thinly veiled notions of racial superiority have informed every aspect of the non-response to climate change so far". The grossly unequal distribution of climate impact has allowed for the "racialized discounting of certain lives" both nationally and globally. She argues, the acceptance of global warming is a calculation in agreeing to protect the wealth of the richest people on the planet in exchange for the loss of life and livelihood of some of the poorest. She warns this 'race-based hierarchy of humanity' will continue to rationalise the sacrificing of lives, systematically laying the burden on the doorsteps of people of colour. (Klein, 2014) Naiomi Klein surmises that we are living in a time filled with 'promise and peril'; promise being the opportunity that climate change presents for exposing and reforming inequalities across all socio-political factors. In citing the Green New Deal, she suggests now is a time to re-evaluate how we live, eat, travel and do business. "Let's do it all at the same time". (Klein 2021)

The Fossil Fuel and Petrocapitalist Industry - 'Profit Above All Else"

TJ Demos points out that this intersection between climate and social injustice is seen most clearly when natural disasters hit. He points to the Fossil Fuel industry's role in exacerbating the floods, fires, housing displacement, food insecurity, and existential vulnerability - struggles which are being overwhelmingly fought by some of the world's economically poorest people. (Demos, 2021)

Heather Davis and Etieene Turpin claim this hierarchy of human relations presents an extension of the wealth accumulated through colonialism, slavery and white supremacy which today plays out through the practices of Petrocapitalism. An industry which drives a ruthless political, economic agenda which "knows no bounds"(2015), a culture where both humans and non-humans figure as mere resources, an ideology of "profit above all else" (Davis and Etienne, 2015). Rebecca Solnit similarly addresses the violent consequences of the petrocapitalist and fossil fuel industries whose inherent disregard for human life in the face of profit extends a necessary platform on which to accept poverty, housing displacement and toxicity. She points out that widespread hunger is not due to the failures of nature but to unequal systems of distribution and therefore advocates we call climate violence by its name; "the revolt against brutality begins with a revolt against the language that hides that brutality."(Solnit, 2014) A reckoning and recognition of climate violence is imminent and those industries responsible must be held to account.

The Anthropocene - 'Rights to Nature'

The current era of climate breakdown is today known as the Anthropocene or the Capitalocene and is estimated to have begun following the industrial revolution and with the advent of modern capitalism, alongside the commodification of natural resources. Sara Mameni describes the Anthropocene as the historical legacy of colonial practices which converted "every aspect of the planet into the property of the human from whose perspective all others are perceived, judged and managed" (Demos 2021). Anna Tsing describes it as the era in which "human activity outranks other geological forces and determines Earth's natural systems" (Tsing, 2015). An era defined and shaped by the seismic and irreversible human impact on the planet. TJ Demos points to the dark irony of an era named after the very species threatening its own existence and advocates for an end to the continued circuits of capitalism. He argues that 'decolonizing nature' requires the removal of the "subject-object relation between humans and the environment" (Demos, 2021). In 'Rights to Nature', Demos cites the growing movement towards a replacement for a 'property-based conception of nature', in which legal rights are extended to 'non-human subjects' providing a shift from the status of 'natural resource' (Demos, 2015).

The Future of Ecology - Green Market Mechanisms and Technofixes

Demos underscores the urgency to "change course", and to bring about radical change; a different world. He criticizes current attitudes to sustainability as mere 'Greenwashing"; presenting the perspective of western economic needs "a classless vision of ecological justice made in the USA" (2015) Demos describes the green market mechanisms as the prolonged dominance of developed countries over nature. He cites this 'financializing of nature' through carbon offset credits, debt-for-nature exchanges, ethical consumerism and green design - all serve to "reinforce the roots of our dysfunctional ecology" (Demos, 2015). Anna Tsing, similarly addresses the obsession with capitalist 'progress' and points to a new way of living which doesn't separate humans and nature. "we look forward—while

other species, which live day to day, are thus dependent on us." She claims the implications of this forward-looking has led us to miss or neglect what is "around rather than ahead" (Tsing, 2015). Tsing claims, the problem is that 'progress' stopped making sense and "more and more of us looked up one day and realized that the emperor had no clothes" (2015)

Whereas the above commentators criticize green market mechanisms, Paul O'Brien is one of the only people who highlights the potential of Green Capitalism. He addresses Green Capitalism as a system which re-defines economic success to promote ecological practices. Such a movement would encourage ethical investment, local production for local needs and eco-taxes. He claims that history has shown us that "alternatives to capitalism have been demonstrably worse" (O'Brien, 2008).

In 'Staying with the Trouble' Donna Haraway criticizes the tendency to imagine a safe future. She proposes that rather than flitting between the edenic and the apocalyptic, "staying with the trouble requires learning to be truly present,"(2016). She discourages the temptation to believe in 'technofixes', "there are no 'quick-fix solutions"(2016), equally she discourages a 'game-over' attitude. She stresses that the possibilities of ecological development lie within 'nonhierarchical systems theories'. She highlights the need to understand that all matter plays an essential ecological role and it is this collaboration that the very future of the planet depends on. (Haraway, 2016)

I will now introduce two artists whose work points to solutions which challenge the concept of 'technofixes' and green market mechanisms. Through their artwork both Aboubakar Fofana and Kari Cahill propose we look to local resources and traditions to rebuild a sustainable ecology.

1.2. Aboubakar Fofana – Life Cycles of Garments and Indigo Dyeing

Aboubakar Fofana is a multidisciplinary artist and designer born in Mali and known for his work in reviving the traditional and lost art of indigo dyeing in West Africa. He claims (Recker, 2019). His work is about 'the whole life cycle' of indigo dyeing; from the processes of harvesting, pouding, sun-drying and bathing to the subsequent oxidation and fermentation (Recker, 2019). All of which embody the essence of ecology; the interrelationality of elements, humans and non-humans. Haraway terms 'symbiosis' the need to understand that all of nature relies on the interactions between the different biological components (2017). She reminds us that in a future ecology we require each other in unexpected collaborations and combinations, "We become-with each other or not at all" (Harway, 2017). Fofana explains that the lifetime of a vat is dependent on the monitoring of temperature, alkalinity and circulation, "the hardest part is being able to keep the vat alive" (Recker, 2019), requiring the right rhythm of time, nourishment and rest to allow the bacteria to force the reduction of oxygen and produce luminous blues. Fofana's work illustrates the multispecies understanding of ecology, the need to "make and unmake [...] becoming-with each other in surprising relays" (Haraway, 2017). By tapping into biological and philosophical stories, Fofana's art speaks to an interdependent ecology.



Fig.1, Aboubakar Fofana, Mood Indigo, 2010

Indigo's history in West Africa dates back to the eleventh century and continues to hold deep social and spiritual significance among Malians (Recker, 2019). Haraway posits that an ecological future should embrace what she terms 'Kainos' that is, "a future ecology which can be full of inheritances, of remembering, and full of comings, of nurturing what might still be."(Haraway 2016). Following a move to the suburbs of Paris Fofana describes the "concrete jungle" as having 'no comparison' to the life he had in West Africa. "Indigo has such a long history and presence in West Africa that, for me, it was symbolic of what I had lost and needed to find [...] a link to my first home"(Recker, 2019). Fofana points to his early education in harvesting and foraging for plants and the inherited family wisdom and practices about the potential of indigo as a healing botanical. Haraway suggests ecological art can serve to both " settle troubled waters and rebuild quiet places." (Haraway, 2016)



Fig. 2, Aboubakar Fofana, Les Arbres à Bleus, 2012

However, upon his return to Mali, Fofana struggled to find people to teach him about the practices of Indigo - the tradition seemingly lost among many people of his generation, it was clear that synthetic dyes had taken over (Recker, 2019). The vast amounts of skill and experience required to realize the fermented indigos beauty with consistency calls into question the low-cost 'fast-fashion' cycles peddled by corporate consumerist culture. His art questions the quality of these garments. "Since indigo completely left this area many decades ago, we've been sold shoddy replacements for the beautiful fabrics and clothing we used to produce ourselves." (Recker, 2019). He claims that not only have important pieces of heritage and culture been lost, but what has replaced them has been of much poorer quality. (Recker, 2019). Leanne Betasamosake Simpson posits - "extracting the indigenous has always been part of colonialism and conquest;" The fundamental logic of advanced global capitalism is essentially "premised on the withdrawal of value without corresponding deposit" (Demos et al, 2021). She defines extractivist policies as stealing without care or

consideration of the subsequent impacts on that environment. Fofana speaks to the excesses of a capitalist consumerist culture. "You don't need a lot of clothing, you just need the right clothing, and it should be made properly." The Fast Fashion industry being one of the main drivers of climate breakdown; it is estimated that between 80 and 150 billion garments are produced worldwide, two thirds of which end up incinerated or on landfill sites, contributing to 8-10% of global greenhouse gas emissions (Wicker, 2020).Klein urges artists to be the "friction, the resistance [...] to slow down the machine that is setting the world on fire. (Klein, 2021)

Fofana's work addresses a responsible supply chain by stressing the importance of "tracing the process" (Recker, 2020). He claims that being able to trace his work back to the indigenous plant that was cultivated for thousands of years is a way of saying "No, this is what we are really capable of, this is our true history, not what is dumped on us, or what has been assigned to us" (Recker, 2020). In this way refuting the oppressive system imposed upon African countries - his art, a rejection of colonial practice. (Recker 2019)



Fig 3, Fofana, ye bolo ni Muso bolo (Harmony), 2018

In a search for fairness in the global economy Fofana refuses to sell his work to large commercial retailers whose need for mark up creates intense downward price pressure on all sources. On one hand is his sense of responsibility to meet the needs of all the families in his community and on the other, the process cannot be scaled up, from seed to scarf, each plant needs its season to grow. As such he prefers to sell directly to collectors and small boutique owners, exclaiming that garments should be "made by people who are paid properly, who are respected for their skills and artisanship" (Recker, 2019). Fofana's work is a rejection of the privatization and production for profit that broke the intimate relationships of farmers, spinners, weavers, dyers and traders in West African society (Recker, 2019). Fofanas sees the growing and making of Indigo as inherently political - essential to a dignified future for his country; an alternative to the capitalist agenda of individual progress. "No matter where it appears, I want my work to carry its principles and reasons for creation and stories with it" (Recker, 2019). Demos urges artists to use their work to "offer meaningful discussions of environmental and climate-justice practices through the optic of aesthetics," (Demos 2021). He heralds art which underscores a commitment to "ecology-as-intersectionality [...] founded on convictions of both social justice and climate science" (Demos, 2015). He advocates for creating art in alliance with social activism and forming what he calls "critical knowledge creation" (Demos, 2015). In this way, Fofana's work is a voice for the underrepresented and under-resourced frontline communities who have historically suffered and continue to suffer an outsized proportion of climate-related vulnerabilities.

In addition to evidencing the loss of generations of inherited wisdom and the ruin to whole labour systems and to self-sustaining production, Fofana claims there remains a desperate need for work and infrastructure, highlighting that," We see none of the benefits from our crops in Mali." (Recker, 2019). More than 90% of Malian cotton crops are exported because there are no remaining cotton gins or mills. This "rupture" at the hands of colonization, took one of the country's main resources and something which was produced spectacularly well " entirely out of our hands." Instead, "we just get the used clothes made from it dumped on us at the end of their life cycle" (Recker, 2019).

16

Today Mali is a dumping ground for the discarded clothing of Western countries and many people end up wearing third rate castoffs of people from other countries (Recker, 2019). Fofana's art is a re-imagining of the post-colonial ills of his home country and an opportunity to repair them; from the whole community who work with him in his atelier, to the entire country of Mali and to all of West Africa. Demos urges artists to imagine and thereby contribute to the construction of new worlds of social and ecological justice, far from the destructive impacts of petro capitalism and extractivism (Demos, 2021). In doing so, he posits, "the arts offer a crucial lens into, and sometimes protagonist of, environmental transformation [...] a vital site of intervention (Demos, 2021).

1.3. Kari Cahill – The Lay of the Land Project

Kari Cahill leads the 'Lay of the Land' site responsive residencies situated in An Port Co. Donegal and in Lauraugh Co. Kerry. The project began in 2016 and continues today with the collaboration of multiple artists whose work aims to engage with the communities, the landscape and the heritage of the land; serving to promote art which "drives artists and the experience outwards into the wild landscape of this island" (Cahill, 2016).Central to her ecological practice is the understanding of Island culture. Lay of the Land encapsulates the elements of island life, the "community within communities" aspect, paying homage to the "unifying force of shared heritage" (Cahill, 2016). The collaboration included the work of Liadain Aiken, Kari Cahill, Ciara Harission and Hazel McCague who over the course of two weeks, explored the island, foraging for materials, learning about traditional industries, and finding out about the heritage from conversations with locals and cataloguing this through their work. The project is reinvigorating the land culture connection establishing what Haraway calls the 'sympoeitic assemblage' (2017), an interconnection between art, nature and people. Demos also endorses artists who by operating from within the framework of the environment and exploring intersectionalist approaches address climate justice (Demos, 2020).

As Tsing advocates for 'the art of noticing' the need to look around rather than ahead (Tsing, 2015). This 'noticing' extends to the Lay of the land practices of exploring and being curious about "stories in every nook and cranny" (Cahill, 2016), observing and celebrating the multiplicity of species, human and non-human, telling stories that encapsulate island life (Cahill, 2016). The Lay of the Land project mapped the land and culture of each place through the gathering and processing of found materials through ink making and natural dyeing, distilling the colours of the season and the landscape into their work. Cahill describes her work as a "Travelling lab celebrating the islands natural and cultural landscapes" (Cahill, 2016). Cahills work illustrates the notion that

"nothing makes with itself... nothing is self-organizing", all of nature relies on the connections within the assemblage (Haraway, 2017). In this way, Haraway advocates systems which take account of "the diverse kinds of relationalities" this does not necessarily imply of mutual benefit, but rather as "webbed patterns and processes".(Harway, 2017) Haraway is pointing to the rejection of capitalist, individualist practices and interpretations of ecology which have always provided privilege to 'the living'.

Lay of the Land is what O'Brien describes as 'Integrative' art which aims to heal as opposed to diagnose, proposing an aesthetic and ethical alternative and creating works of art that are relevant to the social conditions of our time (2008). While O'Brien advocates for the use of nature as a source of raw material in art, this contradicts Demos' criticism of perceiving the land as a resource and the provincial perspective that the land has always provided. (2015)



Fig 4. Lay of the Land artist collective, Natural Inks and Dyes Samples, 2015

As part of the Lay of the Land project, the installation entitled OI in Brow Head shows flags interacting with the climate, revealing and concealing different parts of view as the fabric moves with the wind, meanwhile situated on the landscape where locals were invited to come and observe (Cahill, 2016). This installation illustrates what Tsing describes as 'polyphonic assemblages' (2015) that is, noticing the "simultaneous melodies and the moments of harmony and dissonance created together in nature." Cahills work illustrates these ideas promoting the importance of looking around and observing the relationships and interactions within nature.



Fig 5. OI, Lay of the Land artist Collective, 2016

Another installation as part of the project is the Sea Cyanotype which marks the sun's reflection onto fabric draped over the edge of the cliffs, meanwhile elements of the landscape served to create shadows and block the light. The fabric reaches into the water, and consequently connects the sea with the sky. In this way the piece illustrates the bringing together of 'multispecies worlds' within the assemblage'(Tsing, 2015), providing a space and a mark where all elements can be seen interacting. In addition,

'The Sea Cyanotype', continued to evolve throughout the exhibition (Cahill, 2016), further speaking to the ephemeral nature of earth, illustrating time and the evolution of landscape.(Cahill, 2016),



Fig 6. Sea Cyanotype, Lay of the Land artist collective, 2016

Chapter 2: Shared Knowledge and Community engagement

In this chapter I continue within the climate violence context as outlined in the introduction to Chapter 1 and build on the community outreach aspects. I am going to look at how artists Vivien Sansour and the Future Farmers make shared knowledge and community discussion central to their art practice and how providing a platform for stimulating conversations can promote ecological solutions.

2.1 Vivien Sansour- The Palestinian Heirloom Seed Library

Vivien Sansour is a Palestinian artist whose exhibition entitled 'Eating our histories' exhibits a collection of native seeds from plants which are nearing extinction. In a recent UN report, it has been highlighted that one million animal and plant species are currently endangered (Demos 2021). Lucy Lippard points out that this loss of biodiversity may be equally as catastrophic as climate change itself. (Demos et al, 2021).



Fig 7. Sansour, Vivien, Palestinian Heirloom Seed Library, 2014

The Palestinian Heirloom Seed Library points to vulnerable vegetation under the threat of colonial practices which continues to erase local farming and contribute to environmental crisis (Sansour, 2014). Through her work Sansour collaborates with local farmers to identify important endangered seed varieties assisting Palestinian farmers in their struggle against the dominant policies of corporate agribusiness. Policies which have forced farmers to give up their heirloom seeds and replace them with alternative varieties - resulting in a decline in native biodiversity and subsequent biotic homogenization; sometimes eroding entire ecosystems (Sansour, 2014). Haraway stresses the importance of diversity in ecosystems; An ecological future relies on "Knots of diverse intra-active relatings in dynamic complex". She highlights the importance of the various parts which contingently form what she calls 'complex patternings" (Haraway, 2017)

These heirlooms seed varieties represent thousands of years of ancestral research and selection, representing one of the remaining strongholds of resistance to Palestinian heritage and self-determination (Sansour, 2014). Sansour connects the loss of native heirloom seeds to the loss of resistance against the Iraeli settler colonial project - claiming that "these seeds carry the DNA of our survival against a violent background". A violence that is evident through the multiple settlement and chemical input expansions which today mark the landscape (Sansour, 2014). Demos highlights the dangers of corporate globalization and cultural imperialism, all of which negatively impact frontline communities, fragile ecosystems, and multispecies ecologies. (Demos et al, 2021) . He resulting ecocides,"leaving unresourced locals to survive as best as they can" (Demos et al, 2021)

Sansours Palestinian Heirloom Seed Library which she calls her 'Travelling Kitchen' is an interactive art and agriculture project that by exchanging seeds and knowledge, stimulates conversations around food and agriculture that may have been buried away - an attempt to "recover these ancient seeds and their stories and put them back into people's hands" (Sansour, 2012). Demos calls on artists to "help make sensible— and newly sensitize us to— the unfolding processes of environmental transformation" (2021) In addressing threatened seed varieties, the PHSL opens up global conversations about biocultural Palestinian heritage, traditional farming practices, and the cultural stories and identities associated with them, inspiring local farmers and community members to actively preserve their bioculture and recuperate their local landscape. Haraway points to the importance of 'sympoiesis' - a response which reflects "complex, dynamic, responsive, situated, historical systems" (Haraway, 2017). In embracing the diverse ancestral heritage, Sansours work points to a way forward which infuses the "temporalities and materialities" (Harway, 2016) of Palestinian land.

The Heirloom Seed Library's mobile venue encourages social engagement from different communities, promoting cultural preservation globally. In the UNESCO world heritage site outside Bethlehem, the PHSL serves as a collaborative space for artists, poets, writers, journalists etc. to showcase their work, spread their ideas and bring conversations about biodiversity into mainstream arts. (Sansour, 2014). Lucy Lippard cites "artists have an integral, complimentary role along with planners, scientists, educators, community stakeholders and policy makers if we are to address the complex issues we face" (Demos et al, 2021). In addition, the mobile venue which traverses borders and checkpoints, symbolically exhibits the seed as a 'subversive rebel' defying submission (Sansour, 2014). Sansour's Heirloom seed library exhibits as an example around the world - Eudora Welty wrote that " One place understood helps us understand all other places better" (cited in Demos et al, 2021) Lippard describes this place-based activism as 'a deep map'. By strengthening ecological solutions within local communities, place-based activism can have far-reaching effects - moving outwards in collaboration with other places (Demos et al, 2021).

2.2 The Future Farmers - The Soil Kitchen

An artist collective who specialise in a variety of disciplines from designers, architects, anthropologists, writers and farmers. Their projects address the interrelationality of people, things, and grains within local environments (FutureFarmers, 2011). Donna Haraway argues in favour of a pluriverse against a singular knowledge of the world, where instead worlds are 'worlded', "We relate, know, think, world and tell stories through and with other stories, worlds, knowledges, thinkings, yearnings." (Haraway, 2017)

Through participatory projects, they create spaces and experiences which deconstruct the accepted narratives surrounding basic systems such as food production and transport. Artists can also deconstruct the ways we're manipulated by the powers that be and help open our eyes to what we have to do to resist and survive (Demos et al, 2021). One such example is the Soil Kitchen project. The Future Farmers rehabilitated an abandoned building into a multi-use space where locals enjoyed free soup in exchange for soil samples from their Philadelphia neighborhood.



Fig 8. The Soil Kitchen, Future Farmers, 2011

subsequently offering participants the opportunity to have their soil samples tested for toxins and contaminants (FutureFarmers, 2011). In this way they created a space which would not only inform residents but provide them an opportunity to respond in community discussion about the possible contaminants in the soil. Demos points to the extractivist practices of mining for industrial production which leaves rivers, forests, lands and seas in varying states of waste when he says "returned to their place is waste, toxicity, disease, exhaustion, and death." (Demos et al, 2021). He advocates for artwork which demands 'the right to see' and underscores the importance of making things visible and public.

The Soil Kitchen project also presented a self-reliant and sustainable approach to the carbon footprint of their work by serving soup made from locally sourced vegetables and sourcing the energy from a windmill on top of the building (FutureFarmers, 2011). Demos supports artwork which is self-reflexive of the environmental footprints of their work (Demos et al, 2021). The windmill served as both a symbol of self-reliance and a sculptural invitation to imagine a potential green energy future. The residents gathered together to imagine and discuss the potential of a green future. Through the use of play the Future Farmers have allowed for new insights and for participation in discussion about sustainable practices in their neighbourhood (2011). The popular image of artists as renegades frees them to imagine situations and outcomes beyond the predictable.(Demos et al, 2021) In this way, the exchange of soil for soup provided an entry point for dialogue and action available in the building through workshops and events. Artwork which is turned into a place of public discussion provides a platform where "innovative social and eco-political narratives can be constructed" (Demos et al, 2021).

Conclusion

In conclusion, Demos et al, Donna Haraway and Anna Tsing urge an acknowledgement and condemnation of the history of state and corporate violence and refute privatized and individualised solutions which continue to exacerbate the perception of nature as an infinite resource. Demos calls for a change of legal status in the rights of nature to address "the root causes of violence and inequality rather than merely [..] their symptoms" (2015). He argues that art can and should aid in this ambition for climate justice. Fofana and Sansour revive the heritage and traditions of their societies and support responsible and biodiverse supply chains; promoting a self-sustaining, self-determining future for their country. The Lay of the Land exemplifies collaboration and shared community experience in nature bringing together the multifaceted elements of nature and documenting the 'polyphonic assemblage' (Tsing, 2015). Meanwhile the Future Farmers call to consciousness the climate crisis focusing on the power of conversation and curiosity as a way forward. The four artists included reject the self-serving capitalist culture and point to a future interdependent ecology cognisant of the extractive colonial practices which have torn the social, environmental and cultural fabric of their societies - encouraging viewers to critically engage with colonial legacy and to rethink dominant modes of understanding land. Their work tells stories of land, culture and human-nonhuman connections. It attempts to dissolve historical colonial boundaries, by reconnecting with their countries heritage. In doing so their art contributes to the meaningful narration of climate violence in ways which explain and expose the complexity of ecological systems, revealing what has been hidden or forgotten and encouraging the construction of new worlds of social and ecological justice - situating humans interdependently within the natural world. All four artists speak to the idea that we both shape and are shaped by the landscape, geographically and experientially. Their work encourages we "follow the threads [...] in order to track them and find their tangles and patterns" (Haraway, 2016) their methodologies uphold the tying together of the varied

elements which make up ecology and point to the 'shifting assemblages' which remake us as well as others - making life possible.

In writing this thesis, I was surprised to see so much overlap within the critical research. This made it difficult to debate different approaches and made for a lot of overlap in the analysis. I was also surprised to discover that all of the artists and critical research rejected all forms of current governmental approaches to climate change such as the Green market Mechanisms and the use of Technology. It was also challenging to separate out the different aspects of climate change without involving repetition because all the social, historical and environmental aspects were inherently interconnected.

My future research would be to continue to investigate attitudes to a future ecology for opposing and alternate perspectives. I would also like to look for research which evaluates the impacts of ecological art to discover what viewers find most effective. This could include questions around what type of art people find most motivates them to take action on climate change. This may be artwork which either focuses on the atrocities of climate violence or perhaps art which points to more optimistic and practical solutions.

Reading about these artists has influenced my own work by inspiring me to reflect on the traditions of my own country, to explore how these may have been oppressed and how I could use my art to revive them. I am also now interested in investigating what hidden aspects of extractive industries may be polluting my own surroundings and how I could use my art to expose them.

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