

# **MESOAMERICAN MATERIALISMS AS ECOSYSTEMS OF RESISTANCE:**

Decolonizing Botany in the Context of Plants  
from the Global South

Pablo Ramírez González



# **MESOAMERICAN MATERIALISMS AS ECOSYSTEMS OF RESISTENCE:**

Decolonizing Botany in the Context of Plants  
from the Global South

Pablo Ramírez González



The Eugeniusz Geppert Academy of Art and Design

Doctoral School

**Mesoamerican Materialisms as Ecosystems of Resistance:**  
**Decolonizing Botany in the Context of Plants from the Global South**

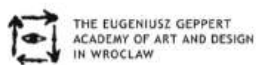
Doctoral thesis in the field of the arts, in the discipline of fine arts and art  
conservation

**Pablo Ramírez González**

Supervisor: dr. hab. Tomasz Opania, prof. ASP

Auxiliary supervisor: Ph.D. Naomi Rincón Gallardo

Wrocław, 2023





## **Table of Content**

Abstract

Acknowledgments

Preface

**Introduction** 17

### **I. Mesoamerican Materialisms - Archeologies of the Future** 27

1.1. Mesoamerican Materialisms

1.2. Nahuatl Philosophy

1.3. *In Xochitl, in Cuicatl*: flower songs

1.4. Fluid matter

1.5. Nahuallism

1.6. Time spaces

1.7. Tlalocan

1.8. Necrocene

1.9. Ghosted landscapes

1.10. Plant Kinship

1.11. Relational ontologies

1.12. Decolonizing Botany / Plant stories

### **II. Methodology** 123

2.1 *Yolia*: fluid matter

2.2 *Cybershamanism* - Alternative Modernities

### **III. Unearthing Colonial Legacies - Works** 147

3.1. *Las: Przekrój*

3.2. *Mycelium Networks of Sticky Transmission*

3.3. Chinampa Lab

3.4. *Zabilar. Gardening Light. Harvesting Sound*

3.5. *Antimatter Plantation and No Time of Cloning*

3.6. *Cybershamanic Garden*

3.7. *Plantifictions*

### **IV. Conclusions** 183

**Bibliography**





## **Abstract**

Keywords: Mesoamerican materialisms, plant kinship, decoloniality, epistemologies of the south, cybershamanism, world-building, more-than-human, relational ontologies, necrocene, plantationocene, ecosystems.

This dissertation constitutes a transdisciplinary artistic research that aims to present an alternative perspective on agency and matter by introducing the term Mesoamerican materialisms through the discourse of relational ontologies. This novel framework rooted in Indigenous epistemologies serves as a political world-building practice within and against the ecosystems of Necrocene and Plantationocene, that is to say beyond the colonial "ontologies of occupation."<sup>1</sup> I develop a critical area of research that challenges the hegemonic views on nature and botanical knowledge through the filter of colonial threads presented in the stories of plants from the Global South. These topics are also being addressed by exploring concepts of multispecies communication, plant kinship, decolonial botany, hauntology and material agency. As a result, by using installation, sculpture and bio technologies, the dissertation proposes a space for multispecies companionship and becoming-with plants in order to create other possible futures based on interspecies communication, storywork and bio-electric more-than-human entanglements.

<sup>1</sup> Escobar A., *Thinking-feeling with the Earth: Territorial Struggles and the Ontological Dimension of the Epistemologies of the South*, Routledge, 2019.



## **Acknowledgments**

I would like to express my deepest appreciation to my supervisor PhD Tomasz Opania and my co-supervisor PhD Naomi Rincón Gallardo, both of them dedicating their art practices in different ways to politically oriented research have nurtured this investigation by their profound perspectives, knowledges, and our joyful collaborations. Thus, they have enriched this study and helped me to delve through the obscure questions that have risen through the research process concerning racial politics and decoloniality. I am also indebted to my fellow researchers, artists, friends, theorists, and curators who have become part of the different stages of this work. I wish to thank my mothers, Mayela, Cano, and Rocío, for their support at every stage of this journey. I wish to give special thanks to my partner, Aleksandra Kubacka, for all her patience, pertinent observations and comments, lovely, caring, artistic advice, and, most of all, unconditional support in the hardest times while consolidating this dissertation. Moreover, I owe so much to my allies in critical plant thinking, collaborators and friends - Aleksandra Wałaszek and Sam Stevens, Lia Dostlieva, Andrii Dostliev, Stanisław Małecki, Joanna Pańczak, Hubert Karmiński, Sonia Borkowicz, Daniela Tagowska and Anna Mituś. Equally, I am very thankful to Ioanna Turcan for the common project development and to my research friends and artists, Karolina Gardzilewicz and Zofia Pałucha. I want to thank my all-time friends Guruseva Khalsa, Hector Cisneros, and Gaston Jaramillo for their support. Additionally, I am grateful for all the encounters with great artists, whose inspiring works, thoughts, techniques, and advice opened many paths in this dissertation - Olaf Brzeski, Michał Puszczyński, Nataliya Zuban, Jakub Biewald. Furthermore the research has been deeply informed by interactions with my students at the Academy of Fine Art in Wrocław and from Barranca de Xalcingo in Cuernavaca. These engagements have given rise to various emancipatory practices, resulting from the necessity to survive in a hostile context defined by a necropolitical reality where the struggle for existence is unceasing.

The present research pays homage to the communities that suffered from genocide and epistemicide through colonization and today continue defending their territories against extractivist practices. Especially, the Purepechas struggle caused by the avocado plantations in Michoacán in México, the Garifuna community in Honduras resisting land grabbing for banana plantations, as well as the Tojolabales from the Lacandon jungle to whom I am referring in this dissertation.



For my mothers: Mayela, Cano and Rocío



## **Preface**

The present dissertation intends to describe the artistic research undertaken during the Ph.D. program at the Eugeniusz Geppert's Academy of Fine Arts in Wrocław, Poland, during 2020-2023. It details the artistic processes as well as theoretical reflections that are the result of my investigation. It delves into an interdisciplinary study of the colonial legacies of plants from the Global South and introduces the concept of Mesoamerican materialisms understood as a political ontology of resistance. Analyzing the material stories of plants and their colonial trajectories, role in spiritual, medicinal, and food systems in the context of Indigenous territorial struggles serves as a source for critical perspectives and ideas about the possible anti-colonial futures, in which reciprocal relations of kinship with non-human entities are the foundational principle of worldmaking practices. Through my interdisciplinary artistic research which consists of creating various installations and immersive audiovisual environments, I deal with the topics of object-oriented ontology, kincentric ecologies, Indigenous materialisms, as well as unconventional relations between myth and science. My projects use different media and methods such as bio-data processing, electrical engineering, experimental ceramics, sound design and video in order to consolidate spaces of multispecies relationality. My writing style consists of three voices that I use interchangeably: storytelling, poetic, and analytical. Drawing from autoethnography and sensory ethnobotany, I explore the intimate relationships that one may create with plants and other more-than-human worlds.

## **Restricted Mobility: A Reflection on the socio-political context of my research.**

Over the past three years, global events that have occurred in the political, ecological and economic sphere, have affected my academic study in unexpected ways. Upon arriving in Poland in March 2020, my partner and I were ill-prepared for the sweeping transformations that were about to unfold. Our plans were abruptly halted just three days after arrival due to the announcement of a pandemic-induced lockdown. This event posed a formidable challenge, complicating the ability to venture beyond Poland's borders over the next following years. The COVID-19 lockdown, and further, a protracted visa application process that spanned over thirty-five months, effectively denied me the opportunity to leave the country before finishing the whole study program. Throughout my Ph.D. program, which I had initially envisioned as encompassing many academic exchanges and collaborations through fieldwork in México and art residencies across Europe, I have encountered an unanticipated confinement.

There were a few notable events that occurred in Poland between the years 2020 and 2023. Probably the most significant happening in the public sphere was the Women's Strike (Strajk Kobiet). This movement that, as a continuation of the Black Protest (Czarny Protest) from 2016, erupted with tremendous force in the autumn of 2020 as an outcome of the restriction of abortion law to a near-total ban. It was a pivotal event that resulted in probably the most extensive social mobilization since the end of the communist regime in Poland in the late 80's. Led by women advocating for the protection of their rights, the intensification of policies further fueled this movement, thus subjecting abortion to persecution and even criminalization.

Subsequently, during the winter of 2021, the issue of push-backs of migrants on the Polish-Belarusian border unveiled a distressing facet of racial dynamics and shed the light on the case of violating fundamental human rights by denying the opportunity to seek political asylum in these countries. The Polish military secured access to the country while on the side of the Belarusian border, the military pushed migrants away towards the Polish border, imprisoning them in



the zone of forest in between and denying them any humanitarian help in the harsh winter conditions, which has caused multiple deaths of people of color. The Cameroonian historian and political theorist Achille Mbembe has pointed out in *Bodies and Borders* that the process of extraction of the disentanglement of life from discounted bodies is a key dimension of the contemporary migration regimes<sup>2</sup>. As Mbembe has described, in his concept of “borderization,” - “the process by which certain spaces are transformed into uncrossable places for certain classes of populations who thereby undergo a process of racialization; places where speed must be disabled and the lives of a multitude of people judged to be undesirable are meant to be im-mobilized if not shattered”<sup>3</sup>.

Finally on the global scale, the two wars that burst out in less than two years, one with Ukraine (2022) and the second with Palestine (2023), have demonstrated the horror of the expansionist processes and revival of the still prevailing colonial strategies. Consequently, these events have shaped the methodology of my thesis on a subject initially rooted in botanical realms and informed my artistic embodied exploration, interwoven with my own physical existence. These stories have happened while I have been developing the ideas of this dissertation, but I think that they demonstrate a series of threads referring to contemporary coloniality as well as diverse forms of dehumanization with which some lives are treated as disposable.

2 As Mbembe states spatial exclusionary arrangements are: “for instance, the case during the early phases of modern settler or genocidal colonialism in relation to Native American reservations in the United States, island prisons, penal colonies such as Australia, camps and Bantustans in South Africa. A late modern example is Gaza”. In: Mbembe, Achille, *Bodies and Borders*, 2021.

3 Ibid, p. 17.





## INTRODUCTION

### A PLANT IS A WOUND

My investigation, which delves into the realm of plants from the Global South, has emerged as an embroidery of narrations, weaving together ideas connected with environmental racism, feminist theory, migration, and various forms of Necropolitics. The process of auto-ethnography<sup>4</sup> and my kinship with plants have served as a catalyst for opening a “colonial wound” - an epistemic realm that has been historically neglected. In a curious parallel, I found myself making kin with migrant plants by becoming a migrant myself. Eschewing attempts to simply transcend colonialism in favor of confronting it head-on, I follow Donna Haraway’s idea of “staying with the trouble,” in which she refers to an ethos of engaging with complex and challenging issues rather than turning away from them<sup>5</sup>. In this analysis, the flora of the Global South is marked by themes of displacement and migration, but also resistance and healing, navigating foreign landscapes. Plant-human relationships weave a narrative that opens up space for alternative ways of knowing: recognizing the significance of indigenous knowledge systems and the wisdom held by non-human entities, as well as dismantling the hierarchies that have relegated such knowledge to the periphery.

4 It is a form of research in which the author uses self-reflection and writing to explore their personal experience and connect it to a broader cultural, political, and social context.

5 Haraway, D.. *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press, 2016.

## ART AND RESEARCH CONTEXT:

Increased interest in matter and non-human agency across the academic disciplines has strongly influenced my artistic explorations. The idea that agency is not just a human capacity but rather a quality manifested in all aspects of reality, has been circulating within Indigenous thought since ancient times. More-than-human kinship and rejection of human exceptionalism, as well as understanding the interconnectedness of matter, are foundational principles of that framework. Indigenous communities, being engaged in their interrelated worldings<sup>6</sup> for thousands of years, produce different forms of knowledge about matter and its animated force.

The emergence of the “ontological turn” (Eduardo Viveiros de Castro, 1998) changed the state of Western research and dynamized its approach toward being, consciously recognizing the agency of other-than-human subjects, shifting the scope from perceiving them as objects or resources towards active agents or subjects of politics. In recent years, those explorations have been carried out in the field of academia by indigenous scholars (Arvin, Tuck, & Morrill, 2013; Deloria, 1999; Simpson, 2017; Tuck & Gaztambide-Fernández, 2013), bringing insightful conversations about the ontological turn. Despite the fact, that Indigenous materialisms started to be a more visible topic in the academic discourse (Jerry L. Rosiek, J. Snyder, and S. L. Pratt), there is still a need for diverse, more specific, and culturally embedded voices to emerge. In my thesis, I am referring to the works by Indigenous scholars such as Linda Tuhiwai Smith (*Decolonizing Methodologies: Research and Indigenous Peoples*, 1999), or Bolivian sociologist Silvia Rivera Cusicanqui, that have given a special focal point towards the need to create alternative methodologies within academia. In the case of Cusicanqui,

<sup>6</sup> The term “worlding” was first introduced, in Postcolonial Studies, by Gayatri Spivak in her essay “The Rani of Simur: An Essay in Reading the Archive,” source: <https://postcolonial.net/glossary/worlding/>, accessed: 12.11.23.

I am especially interested in her *ch'ixi* concept<sup>7</sup> which helps me to refer to the mestizo nature of my works, in which both indigenous knowledge and Western culture intermingle. In addition, the concept of “kincentric ecology”<sup>8</sup> of Enrique Salmón and his analysis of *iwigara* notion has profoundly enriched my research as well as the work of anthropologist Marisol De La Cadena and her book *Earth Beings* (2015). I also would like to mention Arturo Escobar with his reflections on relational ontologies, depicted in his work *Feeling-Thinking with the Earth* (2015) and his perspectives on the *Epistemologies of the South* were helpful situating Mesoamerican materialisms within the contemporary context. The parts of the writing that refer to Mesoamerica are largely informed by the extensive body of work of the main anthropologists of that region, Alfredo López Austin and Miguel León-Portilla. Hitherto, not much research has been done considering Mesoamerican materialisms nevertheless, an early take on the epistemic recognition has been made in a series of studies (León Portilla, 1993 [1956]; Gingerich, 1987; Descola, 2013 [2005]; Maffie, 2014; Gonzalez Romero, 2021) from which is important to point out the 1969 book, *La filosofía náhuatl* of the anthropologist Miguel León-Portilla. In this work he analyzes Nahua Indigenous knowledge as parallel to Western philosophical traditions. His study recognizes the value of philosophers such as Nezahualcoyotl, Tochiuhcizin Coyolchihqui, Ayocuan Cuetzpaltzin arguing that Nahua culture included individuals whose thoughts were as reflective, self-conscious and critical, as of the thinkers in other latitudes. In addition to above, my interpretation of Mesoamerican materialisms firmly stands on the well-respected interpretations of Mesoamerican culture of Alfredo López Austin. His work helps to analyze specific relational concepts of the cultures of that region, like personhood, *nahualism*, and non-human agency. I also follow some of the philosophical conceptions from the work *Tlamatiliztli* of Osiris González Romero who has deepened the perspectives on Nahua philosophy by

7 Rivera-Cusicanqui, S., Ch'ixinakax utxiwa: A Reflection on the Practices and Discourses of Decolonization, *South Atlantic Quarterly* 111, no. 1 (2012): 95–109.

8 Enrique Salmón, *Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship*, Source: *Ecological Applications*, Vol. 10, No. 5 (Oct., 2000), pp. 1327-1332 Published by: Ecological Society of America Stable (online: <http://www.jstor.org/stable/2641288>, accessed: 10.10.23).

introducing the notion of decolonial hermeneutics. The redefinition of the material in anthropology through the lens of the ontologic turn opens as well the possibility of rethinking philosophy and materialisms from Indigenous viewpoints, the work of Eduardo Viveiros de Castro in this sense proposes the idea of perspectivism - "the conception according to which the universe is inhabited by different sorts of persons, human and non-human, which apprehend reality from distinct points of view".<sup>9</sup> Some beforementioned authors (Tuhiwai, Kiebler, Rosiek) have touched on the topic of epistemic omissions of Indigenous knowledge in the field of New materialisms. Other works relevant to this investigation includes the notion of Indigenous science by Gregory Cajete and Dominique Raby's *Calling through the Water Jar*, and David Carrasco's *Cosmic Jaws: We Eat the Gods and the Gods Eat Us* as well as Alison Ravenscroft's *Strange Weather: Indigenous Materialisms, New Materialism and Colonialism*.

Truly insightful for my thesis was the approach of Linda Tuhiwai in regard to the notion of academic research itself. She strongly criticizes the historical violence that research has made on Indigenous people, and she points out the uselessness of such knowledge "It told us things already known, suggested things that would not work, and made careers for people that already had jobs."<sup>10</sup> While underlining the extractivist character of those colonial practices she proposes to "re-search back" by using indigenous ontological and epistemological frameworks in order to re-cover, re-cognize, re-create and re-present - she calls it decolonization of methodologies, it is a method of research from the Indigenous perspectives and for its own purposes.<sup>11</sup> Similar take on that issue is represented by Jo-ann Archibald Q'um Q'um Xiem while she talks about research as a critical tool of colonization that was used in order to define, destroy, and deter the valuing of Indigenous knowledge, people, and practices. She states that: "the story-takers

<sup>9</sup> Eduardo Viveiros de Castro, *The Relative Native*, Chicago 2015.

<sup>10</sup> Ibid., p. 3.

<sup>11</sup> Ibid., p. 39.

and story-makers usually misrepresented, misappropriated, and misused Indigenous stories".<sup>12</sup> Philosophy of non-human agency practiced by different Indigenous cultures has been omitted for more than five centuries. Nonetheless, its presence persists in contemporary research, Indigenous studies scholarship happens to share lots of similarities with new materialisms (Jacquelyne Kibler)<sup>13</sup>.

Over the last decade, different ecologic, philosophical, and political concepts that represent postantropocentrism in academic disciplines, were introduced through multispecies-oriented perspectives (Haraway, Tsing), actor-network theory (Bruno Latour), Object Oriented Ontology (T. Morton), posthumanism (R. Braidotti) or new materialisms (Karen Barad, Jane Bennett<sup>14</sup>). Proponents of these fields of sociology, political science, and philosophy have been exploring the qualities of the material and non-human world, sharing the conviction that matter - from the lab to the forest - can act, have agency, move, volition and even certain degrees of cognition typically assumed as the privilege of human subjectivity. New materialisms deconstruct the Cartesian binomial and ideas of nature grounded in the Enlightenment, especially those based on the anthropocentric paradigm, asserting that the meaning of things exists independently of human interpretation. It reconceptualizes matter as no longer passive or inert, instead possessing its own agency and actively transforming and organizing itself.<sup>15</sup> However, there has been little articulation between this relatively recent field of studies and Indigenous legacies. Many of the concepts within new materialisms, such as vital materiality (Jane Bennett) or agential realism (Karen Barad) are constituted without referencing any of the Indigenous theorists despite their significant parallels. Ideas about non-human agency were developed by Indigenous thinkers millennia before contemporary philosophers, and today, they have continuously expand their

12 Archibald, J. (2008). *Decolonizing Research: Indigenous Storywork as Methodology*, p. 5.

13 Kibler, J., *Indigenous Knowledges and New Materialism: A Citation Analysis of Exclusion*, 2022.

14 Bennett Jane, *Vibrant Matter: A Political Ecology of Things*. Duke University Press, 2010.

15 Coole D., Frost S., *New Materialism. Ontology, Agency, and Politics*, p. 28.

ontologic research related to the environmental crisis, material agency and political ecology<sup>16</sup>. Many contemporary researchers in the area of new materialists studies omits referencing indigenous knowledge on the basis of having no translations or written records. According to philosopher Jacquelyne Kibler, the avoidance of acknowledgment of Indigenous researchers can be seen as an example of Western epistemic dominance<sup>17</sup>. Decolonial scholars have made the factor of privilege quite clear, considering the neglect of Indigenous knowledge from the fields such as new materialism, favoring Euro-Western knowledge over Indigenous perspectives. In her work, *Indigenous Knowledges and New Materialism*, Jacquelyne Kibler underlines the Euro-Western practice of native knowledge appropriation and the reinforcement of Indigenous invisibility in the new materialist discourse through the citing behaviors of western researchers. She argues that the omission is both - an individual choice and a collective structural force.<sup>18</sup> These reflections establish the background in which I situate this research and are a starting point for considering the problem of matter from Indigenous perspective.

My research finds also kin among feminist Western scholars such as professor of inhuman geography Kathryn Yussof with her book *A Billion Black Anthropocenes or None*.<sup>19</sup> My understanding of the Anthropocene derives especially from this inspiring work, that delves into racial logic that configures the current geologic era and opens a wide range of ways to articulate the relationship between Black and Indigenous peoples and the extractivist politics in the context of plantations in the Global South. Furthermore, critical views of Anna Tsing and Donna Haraway on ecologies of the Anthropocene and their notions of kinship, becoming with,

16 J. L. Rosiek, J. Snyder, S. L. Pratt, *The New Materialisms and Indigenous Theories of Non-Human Agency: Making the Case for Respectful Anti-Colonial Engagement*.

17 Kibler, J., *Indigenous Knowledges and New Materialism: A Citation Analysis of Exclusion*, 2022, p. 28.

18 Ibid.

19 Yusoff, Kathryn. 2018. *A Billion Black Anthropocenes or None*. Forerunners: Ideas First. Minneapolis, MN: University of Minnesota Press.



and ecologies of care, accompanied my delve into these haunted epistemic territories such as the work of many other theoreticians who have dedicated their work to a decolonial and anticolonial turn within the field of new materialism and Indigenous studies.

The main territory in which I develop further these ideas is through my art practice - a creative processes that enable me to explore and try out an embodied knowledge in which theory and practice are not dissociated realms but rather intermingled processes of craftwork-theory. Through my endeavors in the field of arts, I aim to advance ideas beyond biases and binaries such as myth-science and artificial-natural. I create assemblages where technology and organic matter generate new concatenations between human and more-than-human beings, in which plants, bacteria, and fungi play an active role in building relational entanglements. During my PhD, I have developed a series of sculptures and installations created in various different media such as ceramics, videos, generative sound, images, and drawings. These different materials served me to build immersive spaces of experience that present new possible scenarios of *becoming-with* plants.

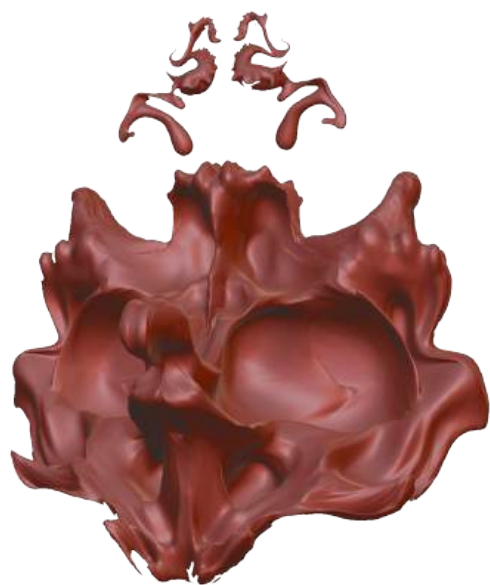
I have decided to intertwine my findings and descriptions of my artworks and installations with specific concepts coming from Mesoamerican material philosophy, and also to combine them with more intimate narrations. I am presenting the stories of the Plants from the Global South in a contemporary context, along with the socioecological background of the territories in struggle. The plants that I have decided to work with in my project (*Avocado*, *Persea americana*, Banana tree, *Musa Paradisiaca*, *Monstera*, *Monstera Deliciosa* and Aloe, *Aloe Vera*) are coming from the region of Mesoamerica, where today, more than 500 years after the conquest, the colonial dynamics are still deeply intertwined with the present. Simultaneously the ancient Indigenous practices of *herbolaria* (herbarium), and the study of traditional medicinal plants are being practiced in parallel to Western frameworks. In the Eurocentric context, those plants are usually seen as delinked from the colonial background and their geographic origin, that context however plays an important role in the process of its commodification as exotic goods. I aim to shed light on the complex stories that contain the mechanisms of spread

and usage of those plants in today's globalized markets, giving a special emphasis to the necropolitics that threaten the livability in their territories of origin while at the same time, recognizing and amplifying Indigenous knowledge and practices connected with their legacy.

In the first chapter of my thesis, I will elucidate the epistemologies on which my artistic research is grounded. The concept of Mesoamerican materialisms that I am implementing at this point serves as an umbrella term for other concepts (I am describing them in the second chapter covering the methodological part of my research). I also present the framework of this investigation grounded in political ecology, Indigenous knowledge, decoloniality, and epistemologies of the South, as well as elaborate on ecosystems of resistance and plant kinship. I am implementing Mesoamerican materialisms as an act of epistemic disobedience, drawing from my *mestizo* origin, understood as a place of tension between Indigenous and Western thought. Thus, I opt for a "decolonial exploration," looking forward to a more equitable approach towards botanical, ecological, and material knowledge within academic research. This research also seeks to decolonize botanics by recognizing and valuing diverse non-western knowledge systems, most of all - Indigenous relational ontologies. In this chapter, I am also exploring the stories of the plants connected with the concept of plantation, such as avocado, banana, and monstera. Each of these representative cases reveals a different aspect of particular processes of necroicide, entanglements of life and death, but also perspectives of resilience. The second chapter describes a methodology based on Mesoamerican materialisms as a possible theoretical and epistemological framework from which my art research practice and the study of nature derives. This term, grounded in Indigenous knowledge from that region, defines material (ist) understanding of life, building up partial and situated connections that acknowledge power dynamics (colonial, racial) and contextualize matter through Indigenous, anti-colonial (Cusicanqui), queer (Zairong Xiang) and ecofeminist perspectives (Yusuf, Haraway, Tsing). My aim is to open up the possibility for interdisciplinary decolonial research based on Indigenous ecologies despite a long history of its epistemicide. Regarding the power dynamics that have shaped our entanglements with the territory and knowledge, Mesoamerican

materialisms are proposed as a tool of speculative fiction, which aims to convey alternative counter images of the future in the Global South.

I employ three terms - *yolia*, *cybershamanism*, and *in xochitl, in cuicatl* (*flower songs*) - that help me to condense a seminal methodology for exploring materiality regarding the tradition of Indigenous knowledge. Other helpful concepts through which I implement my art practice in relation to Mesoamerica are *Tlalocan* and *Tlaloque* (hydrologic and creative entities). These terms are intermingled throughout my dissertation with the aim of building an anti-colonial framework for understanding nature and referring to my artistic practice. The third chapter is configured in four parts, each dedicated to one of my realized exhibitions. It covers the visual part of the research and the description of my artistic projects in relation to the previously presented topics. Finally, the last, fourth chapter of my dissertation presents general conclusions about the whole research, concludes about the undertaken discussion and elaborates on its perspectives for the future.



*Xibalba, Monster Abyss, 3D, Kunstmatrix ASP 2020*

## I. MESOAMERICAN MATERIALISMS - ARCHEOLOGIES OF THE FUTURE

In the following chapter, I explore Mesoamerican materialisms from the interdisciplinary, decolonial and research-based artistic perspective, while using this notion as a model of creation based on interspecies collaborations, relations between objects, plants and humans and recognition of more-than-human agency. Thus, I will firstly describe the Nahuatl philosophy being the axis of my study in order to foster a better understanding of an ancient mesoamerican worldview. These knowledge will be supplemented by contemporary theories of relational ontologies of Arturo Escobar and feminist ecologies in order to situate it in a present context and to prove its topicality in addressing socio-ecological problems through art.

Primarily I am focusing on ontological metaphors present in the Nahuatl *flower songs* (*in xochitl, in cuicatl*) that are an important trope for finding materialisms traces in ancient philosophy of that region. This key element of Nahuatl philosophy in which juxtaposed elements construct semantic couplets building material entanglements that I use as a conceptual nucleus in my methodology, are fundamental in order to understand two main symbolic spaces of the Nahuatl philosophy - Tlalocan and Mictlan - through which I analyse indigenous territorial context of the plants of the Global South and their articulation as material bodies within my installations.





## 1.1. MESOAMERICAN MATERIALISMS

I would like to start by introducing the new term Mesoamerican materialisms in the context of transdisciplinary scientific and art research. I treat this notion as a theoretical and practical framework that involves decolonial approach towards matter, through implementation of the Indigenous knowledges, and relational ontologies on the ground of artistic practice. The introduction of this term is fundamental to the exploration of epistemic friction with contemporary theories of material agency, the acknowledgment of Indigenous Mesoamerican philosophy and Nahua wisdom, as well as understanding the epistemic and extractivist aspects of materiality. Mesoamerican materialisms, apart from helping to grasp the philosophical complexities of the region, encapsulate the essence of decolonizing historical and “new” materialisms through the use of Indigenous relational ontologies. They endeavor to reevaluate alternative world-making practices between plants, human, and more-than-human beings.

Consequently, they explore the concepts of non-human agency, personhood, fluid mattering, kincentric ecologies and the merge of epistemic and ontologic fields into a cosmivision that intermingles with the territory. Through the use of speculative fiction, as well as the adoption of the perspective of decolonial hermeneutics, this dissertation intends to build a methodology for a possible archeology of the futury integrating Indigenous science with generative technologies, Mesoamerican materialisms seeks to reclaim and unblock alternative modernities that are rooted in the cultural heritage and material cosmologies of Mesoamerica.

Indigenous epistemic and material heritage of Mesoamerica is still present in the contemporary cultural context of that region through the alternative methods of living such as communal agriculture, herbal medicine, environmental protection, community-based knowledge, and the Indigenous activist struggles that stand against extractivism. These activities prove the deep engagement with the materialist philosophies that entangle geologically, geographically and ontologically with the territories of this region. Mesoamerican materialisms acknowledge the vital agency of non-human beings in the construction of the world, underlining their role in a meshwork of interrelated reality. In the words of Arturo Escobar, "nothing preexists the relations that constitute them."<sup>20</sup> This perspective gives an understanding of matter underlining its entanglement in relations, through which it can be defined. Negation of that dependencies inevitably produces a state of disruption as in the case of the by-products of coloniality - Anthropocene, Plantationocene,<sup>21</sup> Necrocene,<sup>22</sup> and Capitalocene. Therefore, Mesoamerican materialisms reject human exceptionalism and the traditional binomial divisions, such as, thought - matter, nature - culture, myth - science and society - environment without the necessity of invoking new materialisms, object oriented ontology or posthumanisms.

20 Ibid., p. 18

21 Plantationocene - term proposed by Donna Haraway, that particularly pays attention to the historical and current results of plantations systems, including exploitation of human and non-human life, see: Haraway, D., *Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin.*, *Environmental Humanities* 6, nr 1 (2015): 159-65.

22 Necrocene - a term proposed by Justin McBrien based on the assumption that capital feasts on death, in: Moore, Jason, *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism.*, PM Press, 2016.



The framework of Mesoamerican materialisms delves into the study of a materiality pushed by Western knowledge to the other side of the *abyssal line*.<sup>23</sup> This line draws between the center and the periphery and has an epistemic dimension, encompassing both, an ontological struggle (Escobar) and a category of extraction. Consequently, Mesoamerican materialisms stand in direct epistemic tension with new materialisms and the omission of Indigenous knowledge from this field, which builds a critical standpoint with the contextualization of Mesoamerican through the contemporary Indigenous relational ontologies. These relations that weave matter into existence (by recognizing agency, noticing matter in the unexpected parts of reality and materialities of things that are not commonly perceived as “material”) are essential for my artistic and theoretical explorations.

The abovementioned abyssal line can be also referred to the concept of epistemicide, central to the Epistemologies of the South. This notion, explored by Arturo Escobar refers to the deliberate suppression, marginalization, or erasure of diverse knowledge systems, particularly those originating from the Global South, Indigenous cultures, and historically oppressed communities. This concept recognizes that colonialism and globalization have led to the dominance of Eurocentric epistemologies and the devaluation of other ways of knowing. One of the problems while analyzing Mesoamerican epistemologies from an academic viewpoint is the proliferation of discourses in which the knowledge of Indigenous peoples has been filtered through colonial bias where philosophy, epistemology and ontology have been rendered actively as non-existent or non-credible alternatives to what exists. The process of epistemicide that took place during and after the colonization of America, Asia, and Africa, set a status quo that validates continuous practices of extractivism over nature justified by the project of Western modernity into reality as the universal anthropocentric paradigm. This colonial project has ultimately become the hegemonic vision, one which ends up building the current capitalistic technocratic system of massive accumulation based on the looting, corporatization, and industrialization of nature. The costs of this process

23 Abyssal Line is a concept introduced by Boaventura de Sousa Santos to describe different layers of the radical divisions made by the imperial project of global colonialism and capitalism, in: Santos, Boaventura de Sousa. *Epistemologies of the South : Justice against Epistemicide*. Boulder :Paradigm Publishers, 2014.

of geopolitical domination over the Global South has signified, among other things, turning the Anthropocene into its coronary, the Necrocene - characterized by massive extinction of species, death, and disappearance of cultures. As a response to *epistemicide*, the concept of *ecologies of knowledge*<sup>24</sup> is built on the metaphor of an ecosystem in order to illustrate the interconnectedness and interdependence of various theories of knowledge. The parallel here is equivalent - just as biodiversity is essential for a healthy environment, epistemological diversity is crucial for a more just and equitable knowledge landscape. These systems are compared to different species in an ecosystem, enriching each other and contributing to a more comprehensive understanding of reality while interacting. The ecology metaphor suggests that no single knowledge system should dominate, and a balanced coexistence and interaction of multiple frameworks can lead to a more holistic perspective. The idea of *ecologies of knowledge* calls for recognizing and valuing the knowledge produced in different cultural, historical, and social contexts while acknowledging that every knowledge system has its own strengths and limitations.

In this sense, Mesoamerican materialisms derives from a place of epistemic discontent, from contemporary *elsewheres*<sup>25</sup>. This framework advocates the necessity of unlearning of colonial/modern categories and aims to learn from the *elsewheres* in order to build new ecologies of knowledge that can articulate materialities with the proper academic tribute to the cultures of the Global South. In this regard, in the following text I am referring to various Nahua codexes, to Indigenous scientists that have build alternative methodologies and frameworks and thirdly to Latin American theorists, anthropologists, sociologist and philosophers. Learning from non-Western and ancient systems of knowledge helps to overpass the traditional dualistic system supported by a constant creation

24 Santos, Boaventura de Sousa, *Epistemologies of the South: Justice Against Epistemicide*. Boulder :Paradigm Publishers, 2014.

25 The term *elsewheres* in José Rabasa take represents "spaces and temporalities that define a world that remains exterior to the spatio-temporal location of any given observer.", in: José Rabasa, *Tell Me the Story of How I Conquered You: Elsewheres and Ethnocide in the Colonial Mesoamerican World* (Austin: University of Texas Press, 2011), p. 1.

of distinctions between different materialities within which the natural world has been studied. In contrast, systems of knowledge coming from elsewhere are dynamic, experimentally based, holistic, and relational, they connect ecological and social, politics and myth, physical and metaphysical.<sup>26</sup> New materialisms clearly echoes this uptake but neglecting the connections with the land and, more importantly, it omits thinkers cultivating a long-fostered relationship with it (Kiebler, George J. Sefa Dei).



*Cybershamanic Garden* exhibition preparation, Orońsko 2023. photos by Ewa Szatybełko.

Mesoamerica demarcates a geographical and cultural region described by the Mexican anthropologist Alfredo López Austin as the *nucleo duro* (hard core)<sup>27</sup>, which works as an umbrella term in order to describe “a common base from which diversity prompted” into a plurality of pre-Hispanic civilizations that have shared philosophical, technological, and scientific methods and co-inhabited the region between the southern part of México and the eastern half of Central America including today’s territories of Guatemala, Salvador, Ecuador, Belize, Honduras. In my dissertation, I draw principally from the material culture of Mesoamerica, such as codexes, sculpture, architecture, botanics, and poetry, as

26 Ibid.

27 The term Mesoamerica (“Middle America”) was first coined in 1943 by the German-Mexican anthropologist Paul Kirchhoff, Paul Kirchhoff, “Mesoamerica,” *Acta Americana* 1 (1943): 92–107.

a direct source of knowledge. The concept of “Mesoamerica” does not aim to erase the diversity and complexity of the cultures that inhabit this region, but rather helps to understand the connections and cultural exchange that took place in this geographical territory.

As Alfredo López Austin has repeatedly stated, despite the differences between the cultures that inhabited the territories of Mesoamerica, such as Olmecs, Zapotecs, Mayas, Toltecs, Aztecs, Mixtecs, and many other Indigenous groups that were part of Mesoamerican traditions, they all shared common elements like agricultural techniques, societal organization, principles of cosmivision, mythology, and rituals<sup>28</sup>. In this text, I will be mainly referring to the Nahua<sup>29</sup> cultures of Mesoamerica, since they are one of the most well-documented civilizations in the Valley of Mexico. There are many inscriptions, codices, and monumental architecture that provide insights into their social, political, and material practices. Anthropologists, including Austin, are dating the existence of this macroregion from the twenty-fifth century BC to the sixteenth century AD<sup>30</sup>. Although Mesoamerica is usually referred to in a historical context, I consider it as a relational framework that extends into the contemporary ontological struggles of Indigenous peoples and their material and political bonds within their territories. In this sense, ancestrality is going away from an intransigent attachment to the past and sprouting a living memory that contains in itself the visions of different possible worlds.

28 López Austin A., *Myth, Belief Narration Image: Reflections on Mesoamerican Mythology*, *Journal of the Southwest* 46, no. 4 (2004): 601–20., (online: <http://www.jstor.org/stable/40170278>, accessed: 5.11.23.)

29 McLeod, Alexis, op. cit. , p.2.

30 Ibid.



Exhibition detail, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.

## 1.2. NAHUA PHILOSOPHY

The philosophy of Mesoamerica is of great importance for contemporary research since it helps to rethink topics like ecology and the interspecies relationships, as well as the exploration of wisdom, intelligence, and subjectivity as qualities that can be assigned to non-human entities: such as mountains, rivers or clouds.<sup>31</sup> I follow the analysis of the *Tlamatiliztli* concept of wisdom developed by Osiris González Romero, in which he focuses on the Nahuatl philosophy, that is not restricted only to Aztec or Mexica cultures but rather expands to a broader group of Indigenous Nahuatl speakers that currently inhabit this land and fosters Indigenous ontologies in direct dialogue with the modern present.

31 McLeod, Alexis, *An Introduction to Mesoamerican Philosophy*, i-ii, Cambridge University Press, 2023

Nahua philosophical development led to the conscious and formal inquiry of three main themes observed by León-Portilla (1963), all of them expressing the notion of materiality as a central topic. The first one of them focused on the transitory nature of matter - either a human or more-than-human, the second one was the notion of truth or *netiliztli*, or stability of life and it was concerned with vital materialities as rooted on earth, and third one - the afterlife was understood as the re-materialization of life after death which I will analyze as symbolic spaces through the time-places of *Tlalocan* and *Mictlan*.<sup>32</sup>

This approach to material philosophical concern was characterized by the indivisibility and interrelatedness between matter and thought. Nahuas did not consider a fundamental dualism between the material world and any immaterial essence. The use of ontological metaphors, that I will explain in the following pages, demarcates that radical difference from Western materialism, noticeable in the approach to matter understood as intrinsically embedded knowledge. The dense use of parallels and metaphors by Nahua indicates that in nahuatl language words are far from being just a figure of speech. Abstract concepts are embedded in reality until the point that epistemology and ontology are perceived as one. Nahua metaphors usually explained human actions through the natural phenomena. This practice of metaphorical speech was so important to the level that there was even a concept to describe this practices as *machiotlahtolli* ("sign-speech").<sup>33</sup>

Analogies between physical things, and concepts were tangible and their connection was not semantic but ontological. If we analyze the deity effigies, this becomes especially clear since their figural representations - made of stone, *tzoalli* dough, or clay were, in fact, the deities present, rather than a simple representation. López Austin comments that everything was embedded with a

32 León Portilla Miguel Jack Emory Davis and Jay I. Kislak Reference Collection (Library of Congress). 1963. *Aztec Thought and Culture : A Study of the Ancient Nahuatl Mind* [1st ed.] ed. Norman: University of Oklahoma Press.

33 Frances Karttunen, *An Analytical Dictionary of Nahuatl*, (Norman: The University of Oklahoma Press, 1997), 128, 267. *Machiotlahtolli* comes from the compound word that combines the words machiyotl, meaning "sign," and tlahtolli, meaning "word, speech or statement."



soul and even the artifacts made by human were considered as sacred.<sup>34</sup> The recognition of this togetherness between human and nature finds its way through the study of relational ontologies. The Nahua philosophy addresses the world as one interrelated whole where the relations of interdependence between humans and nature take into account both thought and matter. Another key element in this philosophy is the experience as a central category in the scientific process of study. The Tewa Indigenous scholar Gregory Cajete delineates:

“The philosophy of science of the native peoples of North America has always been based on an ecological philosophy, which is based not only on rational thinking, but also incorporating the highest degree of all aspects of human interactions with nature, that is, the knowledge and truth obtained from the interaction of the body, mind, soul and spirit with all aspects of nature”<sup>35</sup> (Cajete 2004,46).

This process is parallel to other Indigenous conceptualizations of knowledge, in which it is acquired through a process of verification. In this sense, the practical character of this knowledge is directly linked to a process of direct and attentive observation of the cycling forces of nature. It is important to point out the analogies that this thought finds with ecology, which while having different origins and being rooted in different fields address similar problems.

34 López Austin A., Myth, Belief Narration Image: Reflections on Mesoamerican Mythology. *Journal of the Southwest* 46, no. 4 (2004): 601–20.

35 Cajete, G (2004), Philosophy of Native Science, In *Waters American Indian Thought*, Philosophical Essays, pp45-57.





### 1.3. IN XOCHITL, IN CUICATL: FLOWER AND SONG

In pre-Hispanic Mesoamerica songs were important aspect of Nahuatl philosophy embedded in oral tradition. The written sources are indicating, that Mesoamerican cultures had a penchant for imaginative thinking and for depicting the world through complex symbols and metaphors. The clearest example of such thinking, according to researcher Isabel Laack, are semantic couplets that can be found in the Flower Songs (Xochicuicatl) genre<sup>36</sup>, which was particularly popular in Nahuatl culture. A pre-colonial stylistic figure in Spanish called difrasism was used in Mesoamerican languages i.e. Nahuatl and Mayan as a juxtaposition of two words, constituting a single semantic whole that creates a new quality. For example - *in ixtli, in yollotl* (face, heart) reflects the connection between the heart and mind and refers to a person's personality. *In xochitl, in cuicatl*<sup>37</sup> (flower and song), as the most important example of such semantic couplet, has been described by researchers as "the only truth that exists in the world"<sup>38</sup> and I would like to devote most part of this subchapter to it. Although the tradition of Xochicuicatl songs with semantic couplets has largely been destroyed, there are fewer than 200 songs preserved nowadays. These songs in early colonial times were transcribed and recorded in two documents, *Cantares Mexicanos* and *Romances de los Señores de la Nueva España* (Bierhost 2009)<sup>39</sup>.

36 Miguel León - Portilla defines *Xochicuicatl* as a literary genre, while *in xochitl, in cuicatl* is an example of a specific ontological metaphor referring to Nahuatl cognitive practices (epistemology).

37 León-Portilla, Miguel. 1992. *Fifteen Poets of the Aztec World*. Norman: University of Oklahoma Press, 1992.

38 Ibidem, 203, 204.

39 Most of the songs were translated into Spanish by missionary Bernardino de Sahagún.

Songs, from the pre-colonial period, often told stories about traditions, deities, natural phenomena, rulers and their achievements, as well as are dealing with ordinary earthly matters. (Aguilar-Moreno 2006; León -Portilla 1992). In the ancient Nahuatl language, *xochitl* means flower, while *cuicatl* means song, although the word also refers to any other artistic expression related to words, such as music, poetry or writing. The two aspects of Nahua philosophy - cognition and being - form a single, inseparable whole in this worldview. "Flower," while representing the vital aspect of the world's materiality, at the same time points to the impermanence of reality, its transience; "song," on the other hand, refers to something that lasts despite decay, yet still material. Reality is thus constructed through a process in which people engage with flower (the material world) and song (the non-physical material world) through the senses.

The sociologist Osiris Sinuhé González Romero, in his recent book *Tlamatiliztli, La sabiduría del Pueblo Nahua*<sup>40</sup>, points out that couplets as forms of expression are a kind of "conceptual cores" of Nahua ontology that make intelligible the way human beings and nature relate to each other, and should not be seen as mere stylistic means. Nahua semiotics resists dichotomies that separate the scientific from the mythical, rationality from poetry, or materiality from immateriality, instead relying on much more complex, sometimes paradoxical relationships. In this case, the relationship between language and worldview becomes understandable through the use of the interpretive framework provided by the two verses. The flower songs contain ways in which Nahua society perceives, feels and knows the world. Therefore, their analysis is essential to the study of the concept of materiality.

40 González Romero O. S., *Tlamatiliztli, La sabiduría del Pueblo Nahua*, Leiden University Press, 2021, p. 35.



*Zabilar*, exhibition view, Forma Otwarta Oleśnica, 2023, photos by Katerina Kouzmicheva



Exhibition detail, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.

*Cuicapeuhcayotl* (The Origin of Song)<sup>41</sup> is an example of a flower song, in which one can see the most important features of the metaphor *in xochitl*, *in cuicatl*, such as the interconnectedness of the elements of the system, their entanglement (entanglement) and more-than-human agency. By analyzing some of the verses of the song and focusing on the materiality of the elements in it, I want to draw attention to its immersive nature, involving all the senses through a synesthetic quality:

“Truly as I walk along I hear the rocks as it was replying to the sweet songs of the flowers: truly the glittering, chattering water answers, the bird-green fountain, there it sings, it dashes forth, it sings again; the mockingbird answers; perhaps the coyol bird answers and many sweet singing birds scatter their songs around like music. They bless the earth, pouring out their sweet voices.”

41 Brinton Daniel G., *Ancient Nahuatl Poetry*, 1890, (online: <https://www.gutenberg.org/cache/epub/12219/pg12219-images.html>, access: 10.09.23).

The song describes all the elements and elements of nature as entities endowed with life and, therefore, causality, making the Nahua worldview apparent. We can also see, that the singer is referring to the natural world with lots of admiration and care:

“I wish to ask the beloved hummingbird<sup>42</sup>,  
precious as quetzal plumes, the beloved  
hummingbird, precious as jade.”

Quetzal refers to green-blue feathers. The pairing of quetzal and chalchihuitl (jade) is a semantic couplet for something precious and highly valued. In the Mesoamerican world, the personification of natural elements t.i.e. (earth, fire, rain, stones, stars, plants, etc.) and some human creations was a natural part of the epistemology. The singer describes the land of flowers, communicates with birds and butterflies, and asks them for directions, which indicates a worldview in which more-than-human entities possess knowledge:

“I wish to ask the butterfly, precious as  
the yellow feathered zacuan bird.  
Because they have knowledge, they  
know where the beautiful fragrant  
flowers blossom.”

*In xochitl, in cuicat* is an aspect of my methodology that refers to the interconnectedness and entanglements between species. I use this metaphor in my projects to describe the interplay of human and non-human assemblages in the context of my installations. This concept is also related to my sound works and the processes of bio sonification used in the installations, in which generative granular sounds (*mixtli*) are modified by bio-data coming from plant-human processes of *sympoiesis*. This concept allows different kinds of performative relations to take place as well as enhanced forms of deep listening. Pauline

42 reference to Huitzilopochtli (hummingbird from the South) he was one of the most important deities of the Aztecs, symbol of sun and war.

Oliveros in her book *Quantum Listening* - explores a sound attentive experience described as "listening in as many ways as possible simultaneously - changing and being changed by it."<sup>43</sup> The difference between hearing and listening requires intentional shift and selection. Through the use of granular synthesis the possibility to look in depth into the "molecular' structure of sound reveals attentive routes of possibility. In this technique, tiny micro particles of sound can be infinitely elongated into continuous atmospheres or clouds of sound. I start with samples, which are usually field recordings or scientific archival sources of more-than-human voices, such as in the latest investigations, where I sampled voices of extinct bird species (which is an additional hidden sense of the work, since the sounds have been significantly processed and are not recognizable). I used MaxMSP and Abletonlive platforms to build granular synthesizers, connecting it to Arduino algorithms that translate the biodata coming from plants that are later transformed into sound, building atmospheric sounds that at the atomic level are formed by small particles of, for example the above mentioned, bird songs.

43 Oliveros P., *Quantum Listening*, 2022, p. 30



Pablo Ramírez González, *Plantifictions*, Contemporary Museum Wrocław, 2023,  
photo: Małgorzata Kujda

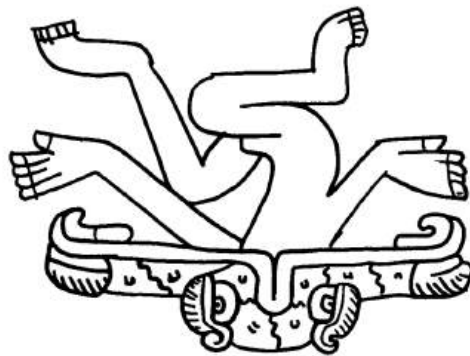
#### 1.4. FLUID MATTER

The documentation contained in Mesoamerican codices and manuscripts let us speculate about rich relational ontologies of materiality across many aspects of life and knowledge, such as agriculture, technology, art, language, medicine, mathematics, ecology or astronomy. However most research on materiality in Mesoamerica has been carried out in the field of anthropology. Alfredo López Austin, while explaining the complex Mesoamerican cosmovision, outlines its material aspect. In his book *Tamoanchan, Tlalocan* he describes light and heavy matter as the two main components that structure Mesoamerican reality.

The first one - light, is normally not perceivable for humans through their senses; the other one - heavy, is an element of our physical existence, perceivable and hard. The gods were created from the light-matter and the *entities on Earth* (such as minerals, flora or fauna) were made from the combination of both. The



fact that humans and non-humans were a mixture of both kinds of matter was affecting their limited existence<sup>44</sup>. The Mexican anthropologist states that the primordial complementary distinction of the matter came from the unfolding of Cipactli - mystic crocodile Mother, which split herself into Earth and Sky<sup>45</sup>, creating an entanglement of *time-space*.



Sources: Codex Borgia, p. 60

According to López Austin, Mesoamerican framework had no division for the spiritual and material world - gods were material, and matter was equally sacred. This model overcomes Western division between thought and matter and proposes approaching matter as a fluid category, in which thought and subjectivities are embedded. I explore this correlative dynamics, through the assemblage of different elements in my works, in which clay sculptures, plants, and phenomena like electricity or biodata are approached as vital and therefore creative forces able to replicate, morph and affect each other.

The concept of Mesoamerican materialisms aligns with a fluid duality. According to which matter is perceived as a dynamic and vital substance in constant movement. These perspectives might be hard to understand from the traditional material perspective in which matter appears as inert and static material in which human

44 López Austin A., *Tamoanchan, Tlalocan: Places of Mist*, University Press of Colorado, 1997, p. 20.

45 Austin, Alfredo López. "Myth, Belief, Narration, Image: Reflections on Mesoamerican Mythology." *Journal of the Southwest* 46, no. 4 (2004): 601-20. <http://www.jstor.org/stable/40170278>, p. 606.





deposits meaning. Perhaps a more expanded notion of materiality grounded in Indigenous science, closer to queer and eco feminist perspectives can find more kin paths with the Nahua philosophy, understanding it through an undefinable, and “weird” categories. Isabela Laack commented on the Nahua concept of a fluid duality, pointing out its ubiquity: “it extended beyond the deities themselves and into the sacred landscape. The dual opposition of contrary, yet complementary, elements are preeminent in the Mesoamerican worldview.”<sup>46</sup> These categories were changeable and porous as the nahua understanding of life was impermanent and cyclical. Dualism was not a fixed deterministic condition here, but rather a dynamic phenomenon contingent upon its relational context.

The ubiquitous interconnectedness in Mesoamerican cultures entailed reciprocal relations based on creating forms of exchange with the more-than-human world. A constant transfer of matter was required for the stability of the whole ecosystem, regulated through intermingled relationality in co-existence, mutuality and reciprocity, that aimed to preserve a cosmological equilibrium. Interconnectedness was also manifested through multispecies agricultural practices like *chinampa*, *tequio*, or *milpa*. The last one is an interesting example of the coexistence of different species. *Milpa* was perhaps one of the most sophisticated technologies in agriculture - a multispecies proposal of resurgence. In agriculture the materialities of Mesoamerica manifests through the complex entanglements with the territory<sup>47</sup>; in this sense, seed-bearing plants were especially appreciated as precious materialities that embedded knowledge and memory. *Milpa* polyculture plots were an agricultural model of agronomic cultivation of plants through reciprocal and entangled ways of planting that did not exhaust the soil, which was supposed to be kept fertile and alive. In *milpa* pillage, classically squash, beans and maize were grown together, whereas *chinampas* were

46 Laack I., “4 A World in Motion: Nahua Ontology 109”. In: *Aztec Religion and Art of Writing*. Leiden, The Netherlands: Brill, 2019.

47 See: Mary Eubanks, *Corn in Clay: Maize Paleoethnobotany in Pre-Columbian Art*, (Gainesville: University Press of Florida, 1999) for more biological information about the various types of maize and an inventory of its depiction on pre-Columbian pottery.



created on the water, including another aspect of mutual relations in gardening. *Tequio* was a form of communal gardening cooperative popular among Mixtecan and Zapotecan cultures. The slow erasure of those forms of horticulture after the colonization and the imposition of monoculture farming signified the slow decline of the material connections with the land. These forms of interrelating with nature found form in my installation entitled *Chinampa Lab*, which I will describe further in the third chapter of my thesis.



*Sampling With Mushroom*, exhibition view, Geppart Gallery, 2023.

*Teotl* was a central concept for Nahua ontologies and it often appears as a divine agency within matter. Often translated as God by Europeans, it encompasses a much broader sense of the idea of the divine since it is itself explained in material terms. It could be said that in the Nahua world, gods were composed of different proportions of cold, dark, and wet substances and of hot, luminous, and dry.<sup>48</sup> They were also embodying material forces and elements. That medium or material essence was characterized by the ability to travel; its components could also be separated in order to become a new material entity or return to its source. This traveling material essence could influence, contaminate, and alter other beings and the world.

<sup>48</sup> Ibid., p. 23.





*Shapeshifters, 2021*

## 1.5. NAHUALISM

Whereas separation from the natural world is familiar to Western thought, in Mesoamerican cultures, recognition of non-human agency was of high importance. Almost every person with an additional name had one of an animal, plant, or a natural phenomenon. The foundational myths of Mesoamerica were filled with people and divinities that possessed animal aspects or forms.<sup>49</sup> This take has been extensively explored in the *Popol Vuh*, a famous Mayan book of origin, in which the listed names of the creator are, among others: Hunahpu *Coyote*, *Coati*, Sovereign Plumed *Serpent*, and Hunahpu *Possum*. In this narration, animal, human, and divine links are shown as an inherent aspect of the creative force. Classic Maya personhood was a resource that could be accessed only by entities that could act in a relational way, including non-humans or objects, like ceramic vessels, stones, or

49 Stone-Miller, Rebecca. "Human-Animal Imagery, Shamanic Visions, and Ancient American Aesthetics." *RES: Anthropology and Aesthetics*, no. 45 (2004): 47–68. (online: <http://www.jstor.org/stable/20167621>, accessed: 18.09.23).

trees.<sup>50</sup> Materiality also had a subjective side that is embraced in this study through the concept of *nahual*. *Nahuallism* is the shapeshifting quality manifesting in the world, but it is also the capacity of transforming into other than human. Within the Mesoamerican cosmological framework, deities, both divine and feminine, perpetually undergo transformative processes, reshaping their material essence to configure novel divine entities, at times amalgamations of three or four distinct deities. These gods, constructed as material entities, also embodied other beings, whether animal or plants. A compelling illustration of this phenomenon is found in the goddess Coatlicue, whose existence epitomizes the intricate interplay of divine entities and their continual reconfigurations. In my body of work the concept of *nahualli* has emerged as a mutability and personhood<sup>51</sup> that manifest through visual metaphors, as well as anthropomorphism and zoomorphism noticeable in created vessels, algorithmic arrangements or sound configurations.

50 Houston, Stephen D. 2014 *The Life Within: Classic Maya and the Matter of Permanence*. Yale University Press, New Haven, p. 98

51 Jackson, Sarah E. "Facing Objects: An Investigation Of Non-Human Personhood In Classic Maya Contexts." *Ancient Mesoamerica* 30, no. 1 (2019): 31–44. doi:10.1017/S0956536118000019.



*Zabilar*, exhibition view, Forma Otwarta Oleśnica, 2023, photos by Katerina Kouzmicheva

## 1.6. TIME-PLACES

I will proceed to delineate the previous framework through the exploration of two symbolic spaces or time-places: *Tlalocan* and *Mictlan*. These time-places are articulated within the indigenous territories of contemporary Mesoamerica as well as in the spatial constructions and installations that I have developed as my body of work in this dissertation. Elements of the territory are transposed into the design of the installations embodying the memory of those places and the colonial trajectories that inhabit them and bringing to the exhibition space the complex relations of enmeshment, as well as the modes of Indigenous resistance through the relational ontologies that emerge from the neo-colonial ontologies of occupation. Tlalocan and Mictlan will be outlined drawing connections with contemporary theories relatively connected to feminist hydrology, the necrocene and hauntology.

Mesoamerican materialisms works as time-space framework that turns the “new” into “ancient” and the “ancient” into multiple futures. Following the concept of multitemporality of the sociologist Silvia Rivera Cusicanqui<sup>52</sup>, which she describes by exploring the Aymara cultural figurations, it disorients the present, as the only temporal dimension in which we exist. The notion of future-past, from which the Indigenous Aymara culture stems, argue that the future is not ahead but behind and past can be seen as future. This temporal hybridity distancing from the linearity of Western time, profiles the emergence of other figurations of the future, while simultaneously containing a dense temporal tensions with the present. Time as a cyclical force was of big importance in Mesoamerican culture because of its links with many correlated aspects of reality<sup>53</sup>, it was a structure that organized the world and played a crucial role in the continual creation of the cosmos. Its fluid nature was marked by alinear and achronological aspects. In the words of Austin, time had ability to transform it, create or destroy. It was a divine entity, that could influence the material world and infiltrate its creatures.<sup>54</sup>

The count of twenty days was a basic unit, from which each day was identified by signs of animals, plants, natural phenomena, or objects resulting in the first day of the cycle - crocodile shapeshifting through eighteen days to end up as a flower. A 260-day calendar was used as a divinatory almanac combining these cycles with 13-day periods. The concept of time was linked to space by coordinating time units with different segments of space. The four cardinal directions were used to define simultaneously space and time. Mesoamerican cities were meticulously organized according to these directions, reflecting an awareness of celestial cycles. Most of all, time was also a material entity, snakes for example not only were representing time but were themselves embodiment of time and movement, its use in sculpture as more-than-human corporealities

52 Rivera Cusicanqui Silvia, *Ch'ixinakax utxiwa : una reflexión sobre prácticas y discursos descolonizadores*, Buenos Aires, 2010.

53 McLeod, Alexis, *op. cit.*

54 López Austin, Alfredo, *Las razones del mito La cosmovisión mesoamericana*, Ediciones Era, 2020.



often was demarcating its cycles. The “Calendar Stone,” carved with symbols representing days, months, and cosmic cycles, is a prime example of time - space intrinsic relation. The measurable aspects of that combination were intricately connected with its symbolic or qualitative dimensions.<sup>55</sup>



*Zabilar*, exhibition view, Forma Otwarta Oleśnica, 2023

Both unite in the activity of time-space-keeping (astronomy), which was focused on observing, measuring, counting, interpreting, and creating written documents on time-space patterns.<sup>56</sup> This relation is also the element that brings a relevant aspect to my installations. Things that are usually not considered as material, through the lens of Mesoamerican materialisms are redefined as such (sound, time, electricity or cognitive process), for instance, in my projects, sound operates as a material manifestation of time that unfolds, twists, wraps, and can be modulated (sculpted) with the aim of building multitemporal stretchings. Through the use of granular synthesis, bio sonification, data processing, I create soundscapes, acoustic environments modulated by the human and more than-human-relations that affect and are affected by the material transformation of the sound.

55 Aztec Philosophy Encyclopedia, <https://iep.utm.edu/aztec-philosophy/>

56 Alfredo López Austin, *Las razones del Mito*, Ediciones Era, 2015.

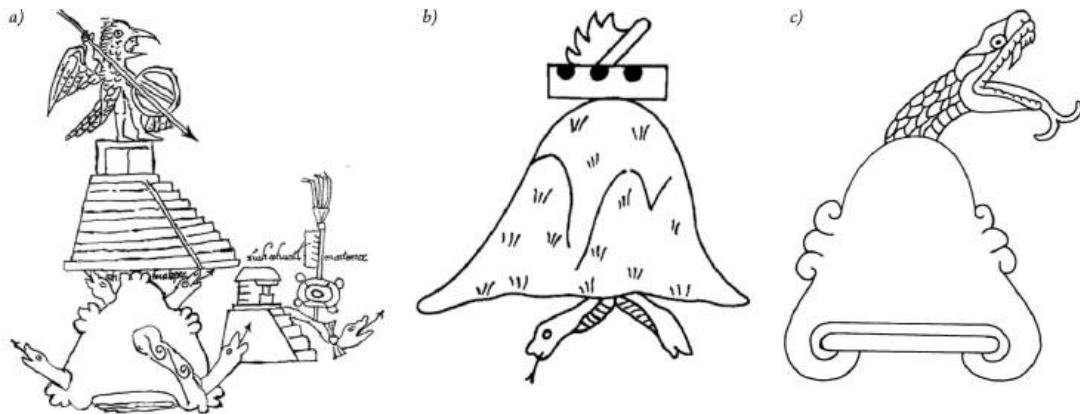
Following the strategies of Indigenous storywork and speculative fabulation (Haraway), Mesoamerican materialisms engage with time-shift, moving between temporalities, like ancient-contemporary, the colonial past and emancipated futures. These are a non-exclusive practices that vindicates myth as ancestral knowledge. Storytelling theme, that guides the research, establishes an epistemic framework beyond the binary thinking where myth *becomes-with* science. This process is vital since these epistemic spaces are typically presented as mutually exclusive; meanwhile, in the Indigenous ontologies, one does not exist without the other. Looking through storytellings lens at the material process might reveal new paths to engage with science as well technology, Haraway suggest that:

“It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what ties tie ties. It matters what stories make worlds, what worlds make stories.”<sup>57</sup>

The story that gives sense to the world is part of it as much as everything that composes it (Escobar), in this sense, our experience of the world is mainly a construction of the mind (through perception and conceptualization), it refers to the correlative nature of Mesoamerican thought, the cyclical struggle of dualities<sup>58</sup>. The question of dualism is explored as two concepts opposed, but in the correlative sense, not fully independent and requiring one another for their own existence.

57 Haraway, D., *Staying with the trouble*, Experimental Futures, 2016.

58 McLeod, Alexis, *op. cit.*



Examples of Aztec place signs<sup>59</sup>

## 1.7. TLALOCAN

There have been innumerable gods in the Mesoamerican cosmivision, and divinity did not belong only to what was unusual or marvelous. The deities were connected to the more-than-human forces and were constituting rich networks of material relations with humans.

From more than 300 deities, Tlaloc<sup>60</sup> was one of the most spread and oldest sacred entities, he was the embodiment of the Earth, a symbol of rain and thunder, represented by large rounded eyes, long fangs, and wearing a peculiar mask. Tlaloc's influence spread throughout Mesoamerica from the 14th to the 16th century. In this research, the relationship with Tlaloc is defined by the hydrological ontologies of Tlalocan - the land of rain which he ruled with Chalchiuhtlicue (the goddess of water). Tlalocan was considered the first out of three circles of the upper worlds depicted as a realm of everlasting rainy season, with an abundance of green foliage and food, to which the deceased were taken as a result of a water- or storm-related accident. In my research, it stands for a place of relations marked by the affinity to the water and storm.

<sup>59</sup> López Austin, Alfredo, Lopez Lujan, Leonardo, *The Sacred Mountain, The Big Temple*, 2009, p.17

<sup>60</sup> López Austin A., *Tamoanchan, Tlalocan: Places of Mist*, University Press of Colorado, 1997.



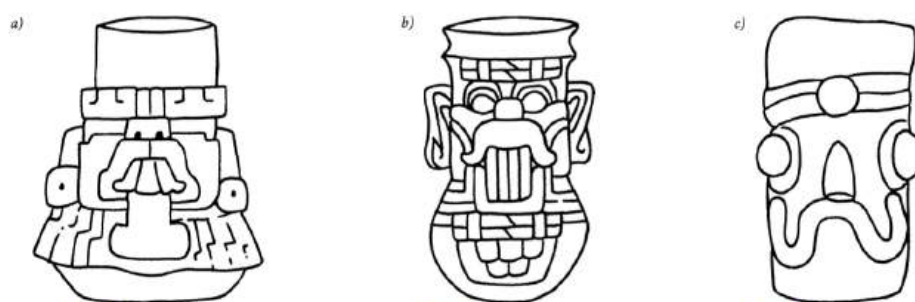
Tlaloc, electroconductive vessel, 2021

Tlaloc embodies an ancient epistemic framework where world-making practices of human and more-than-human entities find common ground through liquid interrelatedness and fluid materialities of water, electricity, or biodata.

Tlalocan can be seen as a hydrological ontology, in which living beings are depicted as bodies of water that are in a continuous process of exchanging liquid matter. Telluric elements, rivers, streams, mountains, objects such as vessels or living organisms such as plants, animals or humans, shape and are shaped by water flowing from one body to another, The omnipresence of water and its vital materiality develops Tlalocan as a place that decentralizes the role of humans and emphasizes the process of influencing and being influenced by water-electric relations.

López Austin, while analyzing the multiple shapes of Tlaloc, has drawn a parallel in Mesoamerican cosmology between the mountain, the pyramid, and the vessel. I have found this comparison especially insightful when thinking about the Mesoamerican materialities that interweave in my projects. Clay as earthly substance composed of a deep time multispecies debris invokes the memories of the rivers that flowed before in its places of origin. The vessel is archetypically

a container of water made of earth, and so is the conception of the mountain. According to Austin, it is a personification of the Sacred Mountain, and in the case of my works, it refers to a relation with the territory.<sup>61</sup> My ceramic work has been influenced by that idea - clay is an earthy matter that in Mesoamerica was widely used since the early Pre-classic time by Olmecs, sculptures made from that material are not mere representations but whole living materialities infused with the agency.



Mesoamerican ceramic vessels with the features of Tlaloc. Austin, Alfredo, *The Sacred Mountain*.

While conducting my research at the Academy of Fine Arts in Wrocław, I coil-built a vessel inspired by my investigations on the relations and features of Tlaloc and with the research on electric circuitry and biodata sonification I conducted parallelly. The elongated vessel was made from chamotte clay and with details made of additional coils scored and joined to the main body of the vessel, in the manner of the ancient techniques of ceramics. I fired the vessel in a reduction wood firing, in the interest of researching more on the techniques commonly practiced in ancient Mesoamerica. When I took it out from the ashes after a few days, I noticed it was all covered in natural graphite as an outcome of the burned wood, the ashes, and the lack of oxygen. Graphite is well-known as a natural electricity conductor. I happened to have a voltmeter at the studio with me, so proceed to tested it. The electricity flowed through the Tlaloc vessel, therefore I continued with this line of experimentation.

61 López Austin, Alfredo, Lopez Lujan, Leonardo, *The Sacred Mountain, The Big Temple*, 2009, p. 229, 343, 367.

In the case of this project, different frameworks such as myth and science - have enriched each other through my research. Tlaloc appears in my installations and sculptural vessels as a shape-shifting visual reference or by material acquiring electroconductive properties that allowed sculptures to act as electrical conductors for bio signal generated by plants. These findings which have taken as a starting point a series of mythological premises around the figure of Tlaloc (treating a thunder as an electricity symbol) interrelated with its electric materialities resulting in technological outcomes such as in the case of my Tlaloque series (electroconductive sculptures). Accordingly the hydrological figure of Tlaloc, simultaneously intermingles with past, present, and future.

From the practical side - my project, represents a state of circulation - the electricity flowing from the plants travels into a more-than-human assemblage composed of sculptures, ground, Arduino boards, synthesizers, computers and other elements and transforms into generative algorithms of sound and video personifying state of digital materialities in flux.

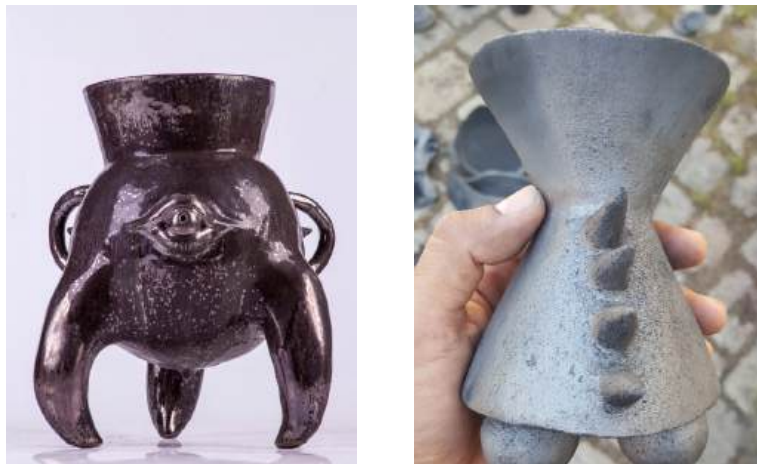
Since this electric flow is concomitantly a sensitive bioelectric signal produced by the plants in real-time, there are an unlimited number of possible factors that can affect the behavior of the electric grid in my installations (starting from the most obvious, like the amount of water and light sensed by the plants, to the more subtle like the presence of other beings, touch, wind, movement, and temperature). All of these factors can affect the response of the plant and as result transforms the algorithm outcome which ends up creating a specific pattern in sound and/or video image. Finally, the sound and video, are another factor that once it is perceived back by the plants, it enters a feedback loop enclosing the bio-electrical circuit as a kind of electric body.

On the practical side of my project, it represents a state of circulation. The bioelectricity flowing from the plants travels into more-than-human assemblage composed of sculptures, ground, Arduino boards, synthesizers, computers and other elements and transforms into generative algorithms of sound and video personifying state of material flux.





Since this electric flow is concomitantly a sensitive bio-electric signal produced by the plants in real-time, there are an unlimited number of possible factors that can affect the behavior of the electric grid in my installations (starting from the most obvious, like the amount of water and light sensed by the plants, to the more subtle like the presence of other beings, touch, wind, movement, and temperature). All of these factors can affect the response of the plant and as result transform the algorithm outcome which ends up creating a specific pattern in sound and/or video image. Finally, the sound and video, are another factor that once it is perceived back by the plants, it enters a feedback loop enclosing the bio-electrical circuit as a kind of electric body, interweaving the idea of Tlaloc through its shapeshift generative ontologies.



*Tlaloques, ceramiczne rzeźby 2022*













## **1.8. NECROCENE**

Following Achille Mbembe in his influential work on Necropolitics has delineated that the ultimate expression of sovereignty resides in “the power and capacity to dictate who is able to live and who must die. To kill or to let live thus constitutes sovereignty’s limits, its principal attributes.” Accordingly, the concept of Necrocene allows me to describe the current socio-ecological formation, comprising the origins and consequences of human-made geological epochs. The term “Anthropocene” according to many recent critics has become obsolete for describing the complexity of the current era. This concept, defined by Crutzen and Stoermer (2000) highlights the influence that humans have as a geologic force on the environment, bypassing, however, the preconditions of the environmental crisis and omitting colonialism and enslavement as its foundations. As to McBrien states, Necrocene is the real face of capitalism, revealing its deep dependence on multiple processes of necrosis. He argues that “capital does not just rob the soil and the worker, as Marx observes, it necrotizes the entire planet.”



*Monster Abyss, 2021*

McBrien eloquently elucidates: “Capital was born from extinction, and from the capital, extinction has flown.”<sup>62</sup> However, his conceptualization misses the ontological racial categories that delineate the geographies where those processes take place. Effectively, capitalism feasts on death but its colonial articulation has built specific conditions for that. He argues that capitalism is itself the personification of the Sixth Extinction because it devours all life. McBrien research reveals an imbrication between the deep time of past cataclysms and the future catastrophes that are producing new deaths because: “extinction lies at the heart of capitalist accumulation”. He points out that what makes capitalism possible is the disappearance of species, languages, cultures, and peoples. “Capitalism is mutating life into death and death into capital.”<sup>63</sup> Over the last decades, the necessity to describe the complexity of anthropogenic and extractivist processes running in parallel to Anthropocene, has pointed

<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

out that perhaps terms like Necrocene, Plantationocene, or Chthulucene<sup>64</sup> can describe more accurately the complexity of current relations of scale, speed, and synchronicity that are operating through our geologic era. At the same time, these terms can accentuate the chance for the creation of other possible futures and geologies of relationality, as in the case of Chthulucene.

Kathryn Yusoff<sup>65</sup> problematizes the notion of the Anthropocene by focusing on racial geologies of extraction that render this epoch possible. She remarks “The Anthropocene as a politically infused geology and a scientific/popular discourse is just now noticing the extinction it has chosen to continually overlook in the making of its modernity and freedom.”<sup>66</sup> Yusoff has asserted that the Anthropocene epoch originated already back in the 15th century along with the invention of the category of “the inhuman” that would facilitate the “extractive grammars of geology” in order to mine the resources from the land but also people demarcated as material commodities. those geographies. She has pointed out in this regard the exclusion of these narratives from the general ecological discourse regarding the plantation as a model that was consolidated based on the constructed difference between the human and the inhuman. She is approaching race as a geologic material reminding at the same time, that the notion of race didn’t exist before the colonization of America<sup>67</sup>.

64 Chthulucene - a term proposed by Donna Haraway to mark the current epoch, to read more see above-mentioned reference.

65 According to a report by NGO Global Witness, in the last decade more than 1,700 environmental activists were murdered, more than 40 percent of which were Indigenous peoples#. In this context, Indigenous plant-human kinship has turned into a struggle to defend the territory. As explained by Arturo Escobar, the territory is a political ontology in itself. There is no way to separate the people from it without ending their world practice.

66 This work is of significant importance as it reconstructs the contemporary socio ecological catastrophe from a perspective that has been exposed since the construction of modernity in the XVI century to the tragic consequences, paying the costs of developing the west through millions of life by genocide, slavery, ecocides. Yusoff, K., *A Billion Black Anthropocenes or None*. University of Minnesota Press., 2018.

67 The idea of race then became fundamental for the discipline of anthropology and had long lasting consequences for the history of humanity and for the justification of slavery and Indigenous genocide-Staffan Müller-Wille, ‘Linnaeus and the four corners of the world’, in *The Cultural Politics of Blood*, 1500

Likewise in the Global South, the relations of Indigenous peoples with the land are constantly being disrupted. They have strived to preserve their bonds with nature in a fast and inevitably changing environment in constant threat of land grabbing and under pressure of dominant political and corporate forces. Activist Indigenous groups have been engaged in politics and governance of their lands as a necessary practice of protecting their territories and resisting capitalist extractivism and dispossession.

The historical as well as contemporary life of plants from the Global South is especially illuminated within various violent contexts. Its growth is connected with the monoculture practices, narco war, genetic modification (GMOs) and cloning, orchestrated by corporate entities and agro-industry. In this process, the Global South and its inhabitants have been relegated to the role of providers of inexpensive natural resources. This history of exclusion has forced people of color, especially those from the Global South, into a position of *subalterns*.<sup>68</sup> Examining the endurance of this system leads to the consideration of surrendering in the fight for change. Plants, however, exhibit remarkable resilience. Looking at how they have navigated the destruction of their native environments and the intricacies they have created in the most hostile contexts reveals a scenario of survival, migration, and resistance. The same applies to the population of those regions as an example in Michoacán, México P'urhépecha healers are resisting the impacts of avocado industry by planting trees that can hold the water released by deforestation. Indigenous communities are reclaiming their knowledge and asserting their rights to land, by recognizing the vital role of plants in spiritual, medicinal, and cultural systems.

68 A term by Antonio Gramsci used in postcolonial theory by Gayatri Chakravorty Spivak, understood as colonial populations, who are excluded from the hierarchy of power, see: Sharp, Joanne Geographies of Postcolonialism, Chapter 6: *Can the Subaltern Speak?* SAGE Publications, 2008.





*Lifelike*, in collaboration with Ioanna Turcan, *Symposium Sztuki*, Pałac Morawa, 2022

## 1.9. GHOSTED LANDSCAPES

The aforementioned process of ruination evokes the landscapes haunted by the colonial past. The term *hauntology*, coming from the French *hantologie*, was forged by Jacques Derrida in his book *Spectres of Marx* (1993).<sup>69</sup> According to a French philosopher, we need to learn to live in conversation and companionship with ghosts of the past. These politics of memory, as he calls it, can provoke affective encounters that will forge the connections between the ethereal present and the unsolved past. Derrida described the dualistic nature of the ghost as a tangible intangibility, or a body without flesh, present and not-present at the same time. *Hauntology* represents a new ethical turn of deconstruction. The figure of the ghost occupies the space beyond comprehension, giving place to otherness. The ghosts of the Plantationocene are not only humans but multispecies: among them are all living beings, human and more-than-human.

<sup>69</sup> Davies C., *Spectres and phantoms*, *French Studies*, Volume 59, Issue 3, July 2005, Pages 373–379, (online: <https://academic.oup.com/fs/article/59/3/373/638853>), accessed: 24.10.23.

Avery F. Gordon in *Ghostly matters* (1997) refers to the ghost as “an animated state in which a repressed or unresolved social violence is making itself known”<sup>70</sup>. In considering the existential status of the population from the Global South, particularly Black and Indigenous communities, one is compelled to ponder whether inhabitants of these regions embody spectral entities relegated to the peripheries of the main discourse? The persistent obliteration of their epistemological frameworks and the disquieting discomfort that their critical presence evokes in the Global North invokes the phenomenon of Phasmophobia as an emblematic manifestation of this marginalization. Does this ethereal existence serve as a stark reminder of the historical predation and exploitation inflicted upon Black and Indigenous populations in the Global South, instigating apprehension and phobia? Indeed, the spectral character of their presence can be attributed to the permeating legacy of coloniality, it is a potent stimulant of hidden traumas associated with extinction, genocide, and other past memories. The metaphorical portrayal of individuals from the Global South, particularly Black and Indigenous communities, as ghosts in the Global North reveals a deeper narrative entangled with the haunting residues of colonial history. As these communities must cope with the echoes of the past, it is important to recognize the implications of Phasmophobia. “The ghost is different from trauma, (...) Trauma demands healing, whereas haunting demands justice in the presence.”<sup>71</sup> In the process of haunting there is a need for symbolic reparations.

In the case of my artistic practice, hauntology addresses the ghostly matters of colonialism, racism, and extractivist ruination. These ghosts are not necessarily people but also plants, seeds, sculptures, and electronics. They constitute humans and non-humans alike - haunting materialities. By using the sound in my installations, I want to bring the voices that are not being heard thus, they are also hauntological. My art realizations evoke the ghosts of the Plantationocene.

<sup>70</sup> Gordon A., *Ghostly matters* 1997, p. 16.

<sup>71</sup> de Ferrari, G., (2018) *A Caribbean Hauntology: The Sensorial Art of Joscelyn Gardner And M. Nourbese Philip*, *Journal of Latin American Cultural Studies*, 27:3, 271-293, p. 288.

In this sense, hauntology can be a path for dealing with the colonial past that has shaped the landscapes of the Global South by acknowledging the ghosts of humans and more-than-humans that have perished while defending those lands and by the process of inventing a different future as the past cannot be fixed.







## **Monster Abyss**

*"Dark tarry matter fills the white space. It slowly mutates and turns into a network of interspecies debate, giving familiar shapes a new, disturbing context. It wakes us up from one realm and sucks us into another. The potentiality of these beings opposes clear dichotomies. The resultant Imaginarium contains an element of dissent with the one-only, hegemonic version of history"<sup>1</sup>.*

The Monster Abyss exhibition explores the boundaries of the subject of monstrosity and the epistemic abyss that erases its complex intricacies and paradoxes. It examines existing narratives of monstrosity and places them in a nexus of colonial, geopolitical, and economic forces. The exhibition also investigates monstrosity as a colonial taxonomy, as well as embrace it as a postnatural standpoint from which one can rethink the relationship between human, more than human and other corporealities. Created on the basis of opposition to what is seen as human, it has been fed with all our fears and fantasies. This category works as an index of Anthropo's status not only in terms of appearance but also in terms of ethics and morality. That is why the notion of monstrosity is often used as a tool of ideology, in the language of racism, discrimination, or speciesism. Signifying specific human and non-human forms of life as monstrous gives an excuse for exploitation and abuse.

*The Monster Abyss exhibition, Kunstmatrix, 2021.*

<https://artspaces.kunstmatrix.com/en/exhibition/6936660/monster-abyss>

<sup>1</sup> curatorial text by Aleksandra Kubacka



## 1.10. PLANT KINSHIP

Plants appear in this investigation as important relational agents that allow me to trace contemporary processes of colonial extraction within the territory of Mesoamerica. The study of this region comprehends a vast diversity of plant-human relations that are as heterogeneous as groups inhabiting this territory. In most of these Indigenous cultures, concepts of kinship, relationality, and agency recognition are fundamental aspects for building multiespecies ecologies of habitability. Understanding the vegetal world within wider webs of interrelations reveals, unattended exchanges that are normally unperceived, sharing string links with mushrooms, animals, rocks and humans alike. In ancient times, plants were part of cosmologies, food, medicine, intrinsically connected with ceremonies and knowledge. Indigenous methodologies were based on reciprocal relations that rendered plants as agents of power, wisdom holders, guides or deities.

Left: *Plantifictions*, Contemporary Museum Wrocław, 2023, photo by Małgorzata Kujda.

Plants and humans share multidimensional bonds. Our livability depends on their existence because we are mutually entangled in the processes of producing oxygen and food. According to paleobiologist Susana Magallón, plants, and fungi are arguably the most crucial life forms on our planet as they play an elemental role in providing sustenance to all creatures, including humans.<sup>72</sup> The first species of plant that found their way into the land emerged around five hundred million years ago,<sup>73</sup> terraforming<sup>74</sup> the Earth and making it livable for all species. In comparison, the ancestors of *homo sapiens* did not appear on Earth until 0.05 million years ago. Unequivocally, plants have done much more than humans in matter of creating a common planetary living; they weaved us in a meshwork, connecting species all over the world through the mutual air exchange of the sensual chemical reaction of flux of carbon and oxygen shared among humans, plants and more-than-human beings. When early hominids started foraging, relying for survival mainly on gathering plant materialities, such as fruits, nuts, seeds, leaves, and roots, they simultaneously started co-creating worlds with plants through multiple collaboratory paths, building stories of interconnectedness, coevolution, and *sympoiesis*.<sup>75</sup>

72 Lutzoni, F., Nowak, M.D., Alfaro, M.E. et al. Contemporaneous radiations of fungi and plants linked to symbiosis. *Nat Commun* 9, 5451 (2018). <https://doi.org/10.1038/s41467-018-07849-9>

73 Pavid, K., *Plant life on Earth is much older than we thought*, 2018, (online: <https://www.nhm.ac.uk/discover/news/2018/february/plant-life-on-earth-is-much-older-than-we-thought.html>, accessed: 3.10.23.).

74 *Terraforming*, Online Oxford English Dictionary (2015) online: (<http://www.oed.com/view/entry/240163?redirectedfrom=Terraform#eid12903891>, accessed: 3.11. 2023).

75 In this regard, the concept of sympoiesis - making-with, coined by Donna Haraway, assumes significance in its ability to articulate the diverse modes of coupling and assemblages between living organisms. It captures the dynamic interplay of diverse entities and their shared agential capacity to co-create and co-evolve. The notion of sympoiesis also extends to encompass the forms of thinking and practices that are directed toward the healing and restoration of ecological systems. Tsing, Anna Lowenhaupt, Nils Bubandt, Elaine Gan, and Heather Anne Swanson, eds. 2017. *Arts of Living on a Damaged Planet*. Minneapolis, MN: University of Minnesota Press.



Sophisticated methods of agriculture and horticulture in Mesoamerica were existing already before the Spanish Conquest<sup>76</sup>. Plants such as maize, beans, squashes, chile peppers, and amaranth were cultivated across this region in the form of complex systems such as polyculture, terracing, irrigation, *chinampa* (so-called floating gardens) and *milpas*. Similarly, if it comes to botanical knowledge, Standley (1920:9) confirms that: "at the time of the Conquest none of the nations of Europe were much superior to the cultures in Mesoamerica in regard to botanical knowledge."<sup>77</sup>

The Nahuatl nomenclature of Mexican plants has also demonstrated the existence of sophisticated methods of botanical classification. Namely, pictorial books, so-called codices, are evidence of the huge impact that plants had on the everyday and spiritual life of ancient Mesoamerica. Many plants also had their own gods, for example, *Mayahuel* was the goddess of agave, and *Cinteotl* was the god of maize.

Even though many prehispanic manuscripts were burned following Cortés orders, there are four documents produced under Spanish control that survived the Conquest and deal specifically with plants: *Florentine Codex*, *The Libellus de Medicinalibus Indorum Herbis*, *Codex Mendoza* and *Matrícula de Tributos*. Apart from that, there are five more mixed colonial codices that refer to plants<sup>78</sup>. One of the most important records of pre-Conquest life - *Florentine Codex* - contained botanical paintings, illustrations and knowledge about the food plants and medicinal plants. The pictorials were often depicting and describing what could not be written with words - hieroglyphic drawings were very specific and created with great detail. Some of the ideographic glyphs were used to indicate the habitat of a plant (f.e. stony or watery) or its use,<sup>79</sup> they were an important component of

76 Williams, David E. *A Review of Sources for the Study of Náhuatl Plant Classification*. *Advances in Economic Botany* 8 (1990): 249–70).

77 Ibid., p. 253.

78 Ibid., p. 255.

79 Ibid., p. 260.

the text, being able to transmit the ideas analogically to the orthographic alphabet system. Thus, instead of actually spelling out the taxonomic rank of plants, as in the European system, their classification was dependent on the painted and oral components of their writing part, however these are precisely the components of Nahuatl botany that have been lost.

Accordingly, almost immediately following the Conquest, the ancient system of pictorial writing began to be supplanted by the Spanish alphabet."<sup>80</sup>. *The Libellus de Medicinalibus Indorum Herbis* also known as *Codex de la Cruz Badiano* or the *Codex Barberini* was created in 1552 by a Nahua physician, Martín de la Cruz, and translated into Latin by Juan Badiano. It contained illustrations of more than 180 medicinal plants and herbs. What is interesting is that it is the first *mestizo* document created after the Conquest with the predominantly European methods<sup>81</sup>. The mix between European and Aztec cultures is visible in the visual style of the drawings, which are shifting between the native visual expression and classic sixteenth-century European herbals.

These codices were not only the source of knowledge about plants but also about their contribution to food and materials production, such as a famous dye - cochineal. The symbiotic relationship of the opuntia and nopal cactus with *cochinilla* insects is depicted in *Codex Florentino* and in *Relación de la Grana Cochinilla* By Gonzalo Gómez de Cervantes. Although the complex meaning of most of the system of plant classification was irrevocably lost in translation, only some of the medicinal plants from the Badiano Codex, especially psychoactive, are being examined nowadays (López- Austin, 1965; Schultes, 1939, 1941; Wassén, 1960; Wasson, 1966; and others). Unfortunately, the multilayered pictorial and glyphic, non-alphabetic system that was used by Mesoamerican cultures was not examined with appropriate attention and it is understood today only to a certain degree. Colonial powers doubted the presence of any science in the pre-Hispanic world and considered the manuscripts superstitious.

80 Ibid., p. 266.

81 Gimmel, Millie, *Reading Medicine in the Codex de La Cruz Badiano*. *Journal of the History of Ideas* 69, no. 2 (2008): p. 177, (online: <http://www.jstor.org/stable/30134035>, accessed: 1.10.23).



*Avocado*, ink on paper, sticker, Contemporary Museum Wrocław, 2023, photo by Małgorzata Kujda.

For that reason, it is necessary to treat the anthropology resources with a critical distance, not as an absolute truth, but rather as an indicator of what could have been possible to exist.

Following the idea of plants relationality, Indigenous rarámuri scholar Enrique Salmón has made a prolific study of plant kinship under the concept of *iwigara*, which serves as a model to understand human-nature relationships within what Salmón defines as “kincentric ecologies”.<sup>83</sup> In these systems environments are

82 Ibid., p. 170.

83 Enrique Salmón, *Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship*, Source: *Ecological Applications*, Vol. 10, No. 5 (Oct., 2000), pp. 1327-1332 Published by: Ecological Society of America Stable (online: <http://www.jstor.org/stable/2641288>, accessed: 10.10.23).



*Webbing with plants workshop, part of Chinampa Lab exhibition, Malta festival Poznań, 2022*

viable just when humans view life around them as kin. The complex interactions that result from “kincentric ecology” give chance to enhance and preserve the ecosystem. These mutually influential relations are principles organizing and creating sustainable ecosystems. For Rarámuri, humans are part of the complexity of life without taking any central role in it.

Moreover, Salmón indicates that “Indigenous people view both themselves and nature as part of an extended ecological family that shares ancestry and origins”<sup>84</sup>. This perspective of kinship enlarges the traditional kinship concept, embracing it not only as a metaphor or possibility towards future kin, but also as an ancestral entanglement, or a multispecies ontology. The concept of *plant kinship* appears across the whole dissertation in conversation with the notion of kin explored by Donna Haraway in *Staying With The Trouble*. “Making kin and making kind” - as philosopher propose - is to create “a common “flesh,” laterally, semiotically, and genealogically” as well as building “viable presents and futures” with humans,

84 Ibid.

more-than-human worlds, and the land<sup>85</sup>. The possible ways of *becoming-with* other beings Haraway describes as: promiscuous, embroidered, and richer. While making kin with plants is a common practice among Indigenous cultures, Enrique Salmón reminds us that what may be expressed as an abstract concept related to the land, can differ from the English meaning as in the case of the concept of kin. Consequently, the term “kincentric ecology” would be meaningless to Raramuri language speakers, although, Indigenous peoples can express the concept of kin through their own traditional terms.

The questions about kinships and agency of the vegetal world demand a serious approach toward the practices and knowledge that Indigenous communities have built with plants, territory, and the more-than-human entities in Global South. These previously neglected frameworks - as seen before - challenge the preconceptions of instituted research methods of analysis in regard to the vegetal world. Making kin with plants in the context of the Global South redirects the potentialities of world-making practices towards a space of collective relation with Indigenous territories. Currently, anthropologists encouraged by the ontological turn have started to configure simultaneously different methodologies to co-build knowledge with Indigenous peoples, as well as giving a place to their ecological and material knowledge ....while acknowledging the relevance of Indigenous frameworks in relation to the more-than-human perspectives and the study of plants. Anthropologist Theresa Miller has developed a method in order to explore plant kin through “Sensory Ethnobotany,” (Theresa L. Miller), studying the relations of plant kinship among Canela Indigenous territory in Brazil. She focuses on the lived experiences of myriad humans, plants, and other non-humans, allowing for an untangling of the meshwork threads to explore the Canela life-world.<sup>86</sup> While introducing the way that Canela people are creating their bond with plants, Miller calls for multispecies care and affect. She argues, that Canela people are

85 Haraway, D., op.cit. p. 13.

86 Miller, Theresa L. *Plant Kin: A Multispecies Ethnography in Indigenous Brazil*. University of Texas Press, 2019, p. 29.



talking about “plant childrens” and “crop childrens” in the context of harvest<sup>87</sup>. Gardening in this community means taking care, and harvest depends on the happiness and well being of crops.

Art historian Teresa Castro, in her article *The Mediated Plant*, in an well known article in the *eflux* art journal while talking about the complexity of plant life, points out that acknowledging it requires withdrawing an anthropocentric, colonizing perspective that has organized the world in a dualistic manner based on gender and racial hierarchies.<sup>88</sup> Perhaps plants, a conscious and sentient beings might be able to bond with us beyond those colonial schemes.<sup>89</sup>

Similarly botanist scholar of the Potawatomi nation Robin Wall Kimerer proposes a form of plant kin that revindicates knowledge production as a multi-species process. The strategy that Wall Kimerer employs in her book *Braiding Sweet Grass* is based on the more-than-human aspect of plants in order to consider them as active agents in the world. In her book she proposes storytelling as way of weaving through diverse ways of knowing in relation with the vegetal world. The story itself, interconnects with scientific analysis, traditional knowledge and critical environmentalism rendering a “web of reciprocity, of giving and taking.”

Feasibly, the kind of kin that sociologist Adele E. Clarke had explained in *Making Kin not Population*, as “daily actions that transform partial relations into deeper ones”.

87 Ibid., p. 94.

88 Castro, T., *The Mediated Plant*, E-flux Journal, September 2019, (online: accessed: 11.10.23).

89 “Plants are acutely aware of the world around them. They are aware of their visual environment; they differentiate between red, blue, far-red, and UV lights and respond accordingly. They are aware of aromas surrounding them and respond to minute quantities of volatile compounds wafting in the air. Plants know when they are being touched and can distinguish different touches. They are aware of gravity: they can change their shapes to ensure that roots grow up and roots grow down. And plants are aware of their past: they remember past infections and the conditions they’ve weathered and they are able to modify their current physiology based on those memories. What we must see is that on a broad level we share biology not only with chimps and dogs but also with begonias and sequoias.”, Chamovitz D., *What a Plant Knows* (New York: Scientific American, 2013), 6, 137–38, 141.

Finally, to render plants as allies in this project, it is also essential to recognize Indigenous knowledges, in its both frameworks - contemporary and ancestral. While Indigenous peoples today constitute about 5% of the global population, more than 80% of the total biodiversity in the world is based on Indigenous territories. The most diverse flora on Earth may be found in the tropical regions, which make up only 6% of the planet's surface.<sup>90</sup> The colonialist erasure has marginalized the Indigenous populations, their knowledge and economy, while removing it from the scientific panorama. Plants are agents within their environments, weaving networks that incorporate a constant process of relationality and collaboration with other beings. As environmental anthropologist Kay Lewis-Jones puts it "Collaboration, coherence, relational being, and interdependence the very nature of plants - may be changing the way we think about social dynamics"<sup>91</sup> Plants are indeed connected with the world through symbiotic bonds; they communicate and respond in multiple ways through movement, color, bioelectricity, and chemical underground exchange with fungi (through mycelium networks), insects, bacteria, and other beings.<sup>92</sup> Their root systems can sense the movement and sound of water and grow towards it; they can detect pollinators and increase the brightness of their flowers. If we define intelligence beyond human exceptionalism, as an ability to respond and learn from the environment, make decisions based on previous experience, and build communication networks with other beings, certainly plants appear as intelligent organisms.<sup>93</sup> They present alternative ways of sensing, relating to and co-becoming with human and more-than-human beings. As they render each other capable in horizontal relations, they might learn from each other ways

90 However, at the current rate, 80,000 square miles of tropical forests are being lost every year, in: Mer-son, "Bio-prospecting", *Nature and Empire*, ed. Mac Leod, p. 284.

91 Lewis-Jones, Kay E. *People and Plants*. *Environment and Society* 7 (2016), p. 2. (online: <https://www.jstor.org/stable/26204968>), (accessed: 12.10.23).

92 Ibid.

93 Ibid.



to “live and die better on a damaged planet.”<sup>94</sup> Through this path, I develop ways of learning with and from plants seen as witnesses of human oppression, producers of memory, wound healers, caregivers, storytellers, sages and builders of more-than-human worlds.

94 Tsing, A.L., *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, Economics Books, Princeton University Press, 2015.

### **1.11. RELATIONAL ONTOLOGIES**

The understanding of Mesoamerican materialisms as both epistemic and ontological frameworks gives the possibility of a more accurate analysis of the complexities of Mesoamerican thought in relation not only to matter, but also to the territory and the contemporary Indigenous struggles. I argue that the sophisticated understandings of material agency in Mesoamerica advances contemporary theories of new materialisms in applying methodologies of “feeling-thinking” with the Earth<sup>95</sup>, what corresponds to a deeper intimacy with the matter at ontologic level. This proposal outlines materialities that can no longer be rendered legible by Eurocentric knowledge in the academic field and through relational ontology can be noted, revived and expanded.

In this regard, I follow the concept by Arturo Escobar as he refers to the Indigenous epistemologies of Mesoamerica and its intermingled struggles with the territory. Anthropologist refers to the Epistemologies of the South as a critical framework that seeks to overcome the hegemonic and colonial nature of knowledge production in order to recognize the existence of multiple ways of knowing and understanding the world. Epistemologies of the South (ES) assert that knowledge is not universal

<sup>95</sup> Escobar A., *Thinking-feeling with the Earth: Territorial Struggles and the Ontological Dimension of the Epistemologies of the South.*, Routledge, 2019.

but context-dependent and that different worldviews and experiences provide valuable insights into understanding complex issues. Escobar following ES draws attention to the importance of its ontological dimension. By recognizing the diversity of the world as one of its main principles, ES embraces an ontological dimension in which knowledges are simultaneously understood as worlds in the sense that: "multiple knowledges, or epistemes, refer to multiple worlds or ontologies."<sup>96</sup>

Escobar pinpoints the ontological crisis of modernity as the crisis of one particular world that he depicts as: "the dominant form of Euro-modernity (capitalist, rationalist, liberal, secular, patriarchal, white, ...)", concluding that: "we are facing modern problems for which there are no longer modern solutions."<sup>97</sup> Escobar calls for understanding places that are both - an effaced world and a pluriverse of worldmaking practices that through the contemporary struggle with the territory re-emerge in new form in opposition to the monolithic vision of a One-World World (OWW), borrowing the term from John Law (2011). The contemporary struggles of Indigenous Huicholes fighting for the protection of the sacred mountain Wixárika against Canadian large-scale minery, the Mayans guarding the Lacandon jungle and resisting the ontologic occupations of both - the state and the cartels, or the Purepechas in Michoacán defending the forests and its multispecies environments from the monocultures of avocado orchards, each of them represents a world-making practice of resurgence through the material and ontological struggle of building worlds beyond the extractivist and the regimes of death of contemporary colonial capitalocene. These processes take place within populations of Indigenous, Afro-descendant defending their territories along Mesoamerica struggle against narco cartels and organized crime, the state and the interests of transnational corporations that still today see in their lands opportunities for cheap nature and resource material exploitation. The materialities of these territories are therefore political and in this sense acknowledge a social dimension that embroils the Indigenous communities and the territorial struggles with the ontologic dimensions of matter.

96 Ibid.

97 Ibid.

This perspective recognizes and consolidates the specificity of world-making practices in multi-species environment by forging kinships with the non-humans. In this regard, the concept of *sympoiesis* - making-with, coined by Donna Haraway, assumes significance in its ability to articulate the diverse modes of coupling and assembling between living organisms. It captures the dynamic interplay of diverse entities and their shared agential capacity to co-create and co-evolve. The notion of *sympoiesis* also extends to encompass the forms of thinking and practices that are directed toward the healing and restoration of ecological systems<sup>98</sup>.

If, despite the formidable power imbalance at play, Indigenous communities have persevered in safeguarding these resources, this has often resulted in forced displacement or incarceration, and various forms of violence. In some instances, Indigenous resistance has led to the killing or kidnaping of the activist leaders. In the Global South, sustaining biodiversity is contingent upon acts of resistance. This resistance encapsulates both an epistemic and material endeavor unfolding within the complex tapestry of multispecies worlds. It manifests as a shared state of relational existence across diverse materialities, fostering a condition of flux where human and more-than-human entities mingle through profound connections and a continuous state of transformation alongside spectral remnants and entities of previous ecological cycles. These systems foster a sense of kinship among the living dead, ghosts, and all other “inhumanities,” refusing to succumb to the colonial processes of deathing either epistemologically or physically. Such ecosystems and their materialities are an intricate enmeshments and constant clash of both necro-designs and the resilience of those who refuse to be erased. Therefore I aim to create a relational ontology that combines both epistemic and ecological backgrounds of Mesoamerica by exploring interdependent relationships between earthbeings, soil, plants, and bio-technologies within ecosystems and studying how they interact and entangle together.

My installations are spatial reminiscences that evoke territories in struggle affected by the colonial activity (plantation, mining or land grabbing, etc.). I have created

98 Tsing, Anna Lowenhaupt, Nils Bubandt, Elaine Gan, and Heather Anne Swanson, eds. 2017. *Arts of Living on a Damaged Planet*. Minneapolis, MN: University of Minnesota Press.

immersive ecosystems that provide a space for experiencing, rather than distant observing, as it is in anthropological museums, where artifacts are displayed through a colonial lens without the recognition of their context and past connections. I have tried to bridge those gaps, by creating entanglements that recognize the relational memory of each of these material beings and approach its agency through the present within new relational configurations. Thus, my installations works are entanglements that promote collective agency, where each element is interconnected and has a vital role to play. Additionally, these ecosystems function as multi-species arrangements, where the typically rigid borders between humans and other organisms become blurred and permeable. Upon entering the installation, observers becomes an integral part of this experience, as their presence is intertwined with the complex matrix of plants, ceramic vessels, sensors, and circuitry.



WE ONLY CAME TO DREAM, WE  
ONLY CAME TO SLEEP





## 1.12. DECOLONIZING BOTANICS

The colonization of nature, emerging from the Enlightenment cartesian classic dualism, situated non-human entities in a position of passive objects and developed “a rationalizing, extractive, dissociative understanding which overlaid functional experiential relations among people, plants and animals.” (Pratt).<sup>99</sup> The concept of decolonizing botanics serves to unravel the relations of domination that are deeply engrained in a historic and ongoing study of plants in science, culture, and geopolitics. It also lays the foundation for creating alternative world-building practices with plants that can integrate alternative frameworks of thought, which acknowledge nature as an active, cognitive, and interrelated agent. The history of botany is closely tied with colonialism, as Western empires in the 17th through 19th centuries have incorporated botanical pursuits into their global ambitions. The historical and ongoing impact of colonization extends through botanical knowledge, practices, and representations. Decolonizing botanics in this regard represents a critical area of inquiry that challenges the hegemonic frameworks through which nature and botanical knowledge have been traditionally understood. Historians and researchers rarely recognize the importance of plants in a formative process of economy, culture, and politics. In that perspective, plants are often seen as entities that share fewer similarities with humans than animals and, therefore, are being relegated as passive and dormant in the human ladder of evolution. Both flora and fauna tend to be treated unfairly by academic discourse in the context of decolonial studies, although they were also targeted by imperial conquests, more to say they were often the main reason for the colonial expeditions to happen in the first place.

<sup>99</sup> Pratt, MaryLouise. *Imperial Eyes: Travel Writing and Transculturation*. London: Routledge, 1992.

An important tool in the process of rationalizing the colonial gaze was the process of nature classification. Botanical knowledge took a relevant place in this administrative commodification of nature. The “othering” of the natural world in science, art, and society is “the ideological practice that enables us to plunder it” (Katz, Cand Kirby, 1991, p. 265). Explorations of new territories were carried out with the aim of discovering new species, medicines, and food as well as gaining control over the colonized lands. The implications of these expeditions on Indigenous botanical practices and knowledge systems show how colonization disrupted and marginalized Indigenous botanical knowledge. This can be understood as a process of ‘bureaucratic rationalization’ (Murphy, R, 1994). Natural history and botany inserted a hegemonic authority over the whole planet “ It elaborated a rationalizing, extractive, dissociative understanding which overlaid functional experimental relations among people, plants and animals” (Pratt, M. L., 1992). Some plants, such as for example the rubber tree (*Hevea brasiliensis*), banana tree (*Musa Paradisiaca*), sugar cane (*Saccharum officinarum*), tobacco or coffee became valuable commodities, contributing to the empire’s global dominance.

Taxonomy was introduced by the Swedish botanist Carl Linnaeus in the 18th century and his classification of plants and animals became later internationally accepted.<sup>100</sup> According to Mary Pratt, the author of the *Imperial Eyes* (1992), the classification system invented by Linnaeus became the first intent to unify a systematic model of taxa and create a new kind of “Eurocentered planetary consciousness” (M. Pratt, p. 39). In his *Systema Naturae*<sup>101</sup> Linnaeus made a classification of about 10,000 species of organisms, which also includes the human classification by race<sup>102</sup>. Taxonomy played a major role in classifying and building

100 Adams, W. M. 1955- and Martin. Mulligan. 2003. *Decolonizing Nature: Strategies for Conservation in a Post-colonial Era*. London ; Sterling, VA, Earthscan Publications, p.25.

101 Linné, Carl von, 1707-17789 London : Printed for Lackington, Allen, and Co., 1806.

102 The botanist have created a detailed racial nomenclature, based on physical traits of race build on the inextricable relations of blood, soil, and customs and has been regarded as one of the 18th century semi-nal roots of scientific racism (Müller-Wille, ‘Linnaeus and the Four Corners of the World’, p. 4).

a structure of biocontrol of plants, humans, and the land. Research through the use of renaming and administration provided a detailed recount of nature as a “resource” and property (William, M. Adams, *Decolonizing Nature*, 24). The development of taxonomy also led to the establishment of botanical gardens and herbaria across Europe which amassed vast collections of plants from around the world. By the end of the 18th century, exploratory travels, abundant with collected plant samples, that were further brought to Europe had become a great business. William Jackson Hooker, the director of Kew Gardens in the middle of the 19th century, sent collectors and botanists across the world with the aim of discovering new specimens of plants, which he would later experiment on by hybridizing and taking them to other continents in order to start growing on plantations.<sup>103</sup> The main goal in making the imperial British navy self-sufficient was “plant transfer”. The Royal Botanic Kew Gardens<sup>104</sup> in London was the main center of plant and botanical knowledge exchange in the name of imperial science (Drayton, 2000),<sup>105</sup> they were extracting plants from colonized lands and developing its classification schemes. Currently, these colonial stories and practices endure in a new way - Millennium Seed Bank<sup>106</sup> - Kew Gardens recent project promotes “biodiversity conservation” by the process of collecting and storing seeds of endangered species of plants, producing at the same time capital and strengthening its epistemic authority while simultaneously greenwashing its colonial pasts.

103 Gray R., Sheiks S., *The coloniality of planting: legacies of racism and slavery in the practice of botany*, January 2021, (online: <https://www.architectural-review.com/essays/the-coloniality-of-planting>, accessed: 4.09.23.).

104 In October 2023, the Royal Kew Gardens in London released *The State of the World's Plants and Fungi*, the publication opens with a report about extinction in which it estimates that one fifth of all existing plants and 45 percent of flowering plants are at risk of extinction. The World Checklist of Vascular Plants (WCVP) was created with an aim to catalog all the existing specimens of plants. It is a quite a paradox that nowadays the botanical gardens - symbols of imperial domination have nowadays become the “guardians of biodiversity”.

105 Drayton, R., *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*. New Haven and London: Yale University Press, 2000.

106 <https://www.kew.org/wakehurst/whats-at-wakehurst/millennium-seed-bank>.













*Zabilar, Gardening Light, fot. Katerina Kouzmitcheva, 2023*



Botany for years has worked in favor of advancing extractivist structures throughout the capitalist industries, however it is important to acknowledge that a big majority of the botanical knowledge about medicinal and native plants was produced by Black and Indigenous researchers in pre-colonial times. In fact, the knowledge about tropical plants, erroneously credited to Western botanists, was practiced for hundreds of years before the arrival of the colonizers<sup>107</sup> (Williams, 1990).

However, colonialism has significantly impacted Western scientific practices from the simplest method of plant taxonomy, which was based on naming the taxa after person and place of origin, to DNA sequencing and patenting process. Every plant of economic importance nowadays is being DNA-sequenced in order to preserve its genomes. Wealthy countries having the necessary equipment are conducting that process excluding collaborators from African or South American countries.<sup>108</sup> Contemporary practices of taxonomy are based on imbalance since still there is a lack of inclusive approach in research and a lack of collaboration between local institutions in creating publications.

Decolonization of botanics represents a critical perspective on extractivist practices, as well as the transition to post-extractivist models like the construction of reciprocal agriculture. Parallel strategies can be found in the field of academia by revalorizing Indigenous knowledge and empowering perspectives that recognize the agency and relationality of plants as entities within intricate networks, as well as proposing building knowledge with plants rather than only about them. The botanical specimens that have been the focus of my research have provided illuminating insights into their strategies for resisting the pervasive influence of coloniality. The cultivation of multispecies networks and the defiance of conventional plantation paradigms are discernible in the intricate plant practices of putrefaction, deliberate slow growth, invasive tendencies and dormancy.

107 Williams, David E. *A Review of Sources for the Study of Náhuatl Plant Classification*. *Advances in Economic Botany* 8 (1990): 249–70. <http://www.jstor.org/stable/43927579>.

108 Li, Fay Wei, *Decolonizing Botanical Genomics*, published: 3 December, 2021, (online: <https://par.nsf.gov/servlets/purl/10308880>, accessed: 16.09.23.).

I have chosen to build narration with three plants from the Global South, which are not just mere botanical samples or objects of study but rather companion species<sup>109</sup> that I have bonded with through my research. The plants, which narratives I want to bring in this text in the following pages, originate from the colonized lands of Central and South America, Africa, and Asia. They reveal the process of colonialism over nature that took place in these territories and continues until the present day.

109 Haraway, D., *The Companion Species Manifesto : Dogs, People, and Significant Otherness*, Chicago, Ill. : Bristol :Prickly Paradigm ; University Presses Marketing, 2003.



## PLANTS STORIES



*Electroconductive sculpture 2022*





## MONSTERA DELICIOSA

*Monstera deliciosa*. That was the favorite plant of my grandma Josefina. A plant with crawling rhizomes<sup>110</sup> wrapping around a pot made out of an oil barrel cutted half and painted white, held by three iron legs around thirty centimeters above the floor. The plant had already overgrown the tunnel, tilting the legs that were holding the barrel, *Monstera* it curled and raised to catch some light in the urban canopy of México City. It certainly flourished full of rhizomatic tentacles with those fenestrated leaves that make it so characteristic. My grandma died of COVID-19 two weeks after I arrived to Poland. I got grounded by the lockdown.

Plants started consequently filling the *parapet* of my apartment in Wrocław in those strange days of 2020; the familiar leaves of *Monstera* brought back stories from faraway places I thought I knew, but they would become unknown again after some time. As time has passed, those plants and I became an intimate allies through this research process.

*Monstera Deliciosa* plant comes from the Lacandon Jungle between the South of México and Guatemala. It is a place in the area of Mesoamerica where, across time, many Indigenous peoples have looked for refuge, escaping colonial powers. This jungle was inhabited for thousands of years by different cultures like the present Lacandons who call themselves "Hach Winik" ("Real People") their language is Hach T'ana ("Real Language"). In Mexico, stories tend to cycle between colonialism and colonality. That place is also connected with the actions of the The EZLN (Ejercito Zapatista de Liberacion Nacional) group. Zapatista Army of National Liberation is an Indigenous armed movement consisting of the groups of Tzotzil, Tzeltal, Tojolab'al, and Ch'ol. They raised their weapons on the 1st of January 1994 with the objective of defending Indigenous people's rights and making a revolution against neoliberalism, they released its declaration on the same day the North American Free Trade Agreement (NAFTA) was enacted. It is perhaps the

110 Rizome is a modified plant stem that sends out roots from its nodes. (<https://en.wikipedia.org/wiki/Rhizome>) It is also known from postmodern philosophical work of G. Deleuze and F. Guattari (*A Thousand Plateaus*, 1980).

first movement in the world that opposed globalism. The neoliberal agreement between México, the United States, and Canada was translated in the following years into a massive extractivist process of corporate mining and agro-fuel projects taking the land and targeting everyone that opposed their interests. Indigenous communities were the first ones to say no more.

Many scientists have been wondering about the origin of the famous holes in the leaves of *Monstera* plant for a while. Recently, a group of botanists, Joanna Kacprzyk, Cara T. Daly, and Paul F. McCabe, while trying to explain the unusual perforations on the *Monstera* leaves, have concluded that the holes are created as a result of a process called *programmed cell death*, written in the genes and not caused, for example, by mechanical damage: “*monstera* leaves (...) perforations composed of dead cells formed early in development (...) is sharply delineated, suggesting that all target cells receive a death signal in unison”. This unsolved quest of cell death has been named *The Botanic Dance of Death*.<sup>111</sup> Other theories have stated that the holes are made in order to sun rays pass through them so the other leaves can catch some sun. A kind of lovely act of care. I like to think that those holes on the leaves of *Monstera* are there for the humans and more-than-humans to look through in the dense canopy of the Lacandon jungle.

In March 2001, the EZLN and the subcommandant Marcos arrived with a delegation to Mexico City. Thousands of people came to see him arriving through the streets of the capital. I also did come, I was a kid back then. Like when lurking through the holes of *Monstera* leaves, I was just able to see the eyes of Marcos through the apertures of his ski mask, he was going on top of his horse with his characteristic pipe, followed by a country that saw on him and in the movement a vanguard hope against the branded promises of globalism.

The first specimen of *Monstera deliciosa* classified by Western science was collected in 1832 in Mexico by Hungarian-born German botanist Wilhelm Friedrich Karwinski von Karwin. Ten years later, two other plant collectors, Danish botanist Frederik Michael Liebmann and Polish botanist Józef Warszewicz, independently introduced *Monstera deliciosa* to Europe by bringing samples from México and

111 Joanna Kacprzyk 1, Cara T. Daly 1, Paul F. McCabe, Chapter 4 - The Botanical Dance of Death: Programmed Cell Death in Plants <https://doi.org/10.1016/B978-0-12-385851-1.00004-4>

Guatemala. According to Michael Madison (1977), most of the *Monstera deliciosa* samples cultivated today originate from those two introductions. Diving deeper into the history of *Monstera* in Europe, I have heard many times from people that they find a very special kinship with this plant. Especially in Poland, it often recalls the memories of communist times. For years, Friedrich Karwinski von Karwin was sending those plants to Russia. Karw was not a botanist but a military, not at all like Marcos, but more similar to the ones he fought with while hiding in the Lacandon Jungle those first days of January 1994. Karw made a fortune out of biopiracy, selling plants to the empire. Concurrently, he worked in Oaxaca, México, as a miner for a German-American company. Military, botany, and mining might have more in common than is generally thought.

Today, about twenty years after the first rise of EZLN, the movement has been critically affected by the narco cartels expanding in Chiapas. The Lacandon jungle has been taken over by the Jalisco cartel - Nueva Generación, displacing the Indigenous Mayan groups that inhabited this place. *Gore capitalism* has arrived even in these once-safe territories that were protected by the more-than-human barriers of dense jungle. Organized crime has built a route through it for passing cocaine, controlling human traffic, and asking locals to pay for protection. Last September of this year, the Indigenous activists of the local Consejo de Vigilancia (security council) *Chambor I*; Pepe Chambor Yuc; Oscar Kimbor Chambor Chanajkin; and Chankin Kimbor *Chambor II*, were forced to move out after denouncing to the authorities for years to secure their lives. When people are being displaced from the territory, the territory is also taken out from them<sup>112</sup> - that is the scale of the process of extraction within the framework of ontologic occupation. An entanglement of interdependent world makers, displaced of their territories at the price of death. Plants, after all, might be the last witness of Indigenous centuries of kindred struggle in the Lacandon Jungle.

112 Escobar, A., online: (online: [https://www.researchgate.net/publication/228009251\\_Displacement\\_Development\\_and\\_Modernity\\_in\\_the\\_Colombian\\_Pacific](https://www.researchgate.net/publication/228009251_Displacement_Development_and_Modernity_in_the_Colombian_Pacific)., accessed: 20.11.2023).



## Mining the Green Gold, Purepecha Resistance, Narco Corp (Avocado)

“Urapiti naná kutsí énkari t’intskajka chúrekua,  
uiripitíecha enkaksĩ májku úkuarhintka jurhítikua jimpo  
uiripitíecha enkaksĩ ampakiti tsakapu jukarikuarika  
enkaksĩ ópchakurhajka ka pápk’anaskuarhini auandarhu  
enkaksĩ k’amarhaka tembuchani, uénakua énka naná kutsí  
anhantka.”

“Circular bodies unite in broad daylight,  
glowing rings of pearls that envelop them and darken the cosmos;  
when fulfilling his hymen, the primal eclipse,  
suddenly, face to face they look at each other, on the brink of their anguish.”

-P’urhépecha poem

### IN MICHOACÁN THE FOREST BECOMES PLANTATION

Every avocado tree in Michoacán is ghosted by the multispecies of previous forests that were set on fire by the avocado producers, seeking to expand the crops of their fruit industry. Whole ecosystems that took thousands of years to consolidate can vanish in a matter of days by the flames of incendiary fire. After the fire has been extinguished, burned forest trees will be weakened, favoring the presence of pests such as bark beetles (*Dendroctonus frontalis*) that will spread through the debilitated foliage. According to Mexican legislation, the infested trees must be treated by felling and fumigating so the terrain would be wiped.<sup>113</sup> The timber will be sold later. The big oyamel and pine trees that were before retaining tons of liters of water now will start the vulnerable process of

113 Olivares-Martinez, Luis D., Gomez Tangle, Alberto, Pérez-Salicrup, Diego R., *Regional Drivers behind the Bruning of Remanent Forest in Michoacán Avocado Belt, Central México*, 2023.

desertification of the soil.<sup>114</sup> This scenario of anthropogenic devastation leaves avocado growers clear land and monetary resources in order to start a new plantation. In the replacement of the forest, thousands of Avocado Hass trees (*Persea americana*) will be planted in straight rows, one next to the other across the steep land of Meseta P'urhépecha<sup>115</sup>. In less than five years, the trees would be ready to give fruits, feeding from the death of the multispecies remains that once were composing the forest of now haunted landscape. Soon, the fruits will be picked by the local labor and sent miles away to foreign lands. This process, reminiscent of the exploration of Anna Tsing on the *Matsutake mushroom* growth and its ecological meshwork, underscores the avocado orchards reliance on the aftermath of intentional ecological disruption.<sup>116</sup>

Avocado (*Persea americana*), known as *ahuacatl* in the Nahuatl language has been an important part of the diet as well as mythology in ancient Mesoamerica. In Mendoza Codex there can be found a glyph representing the land of avocado - Ahuacatlan - *represented with a glyph of a tree with tooth in the trunk and open mouth*, the word is composed of *ahuacacahuatl* - avocado tree *and a calli* - meaning place (Teliz, 2000).<sup>117</sup>

In the mountain landscapes of Michoacán, where avocado orchards sprawl across the hills, a complex tale unfolds a narrative that intertwines the cultivation of Avocado Hass with the incendiary fires. This narrative, echoing Tsing discussions

114 Gómez-Tangle, Dr. Alberto, *Hydrological Impact of Green Gold (avocado culture) in Central México; rainfall partition and water use comparison with native forests*, 2018

115 Raoul Sabin Gordean, *The Avocado War, from "Alligator 's Pear" to "Green Gold"*, Editura Eurostampa.

116 Tsing, Anna Lowenhaupt. 2017. *The Mushroom at the End of the World*. Princeton, NJ: Princeton University Press.

117 Galindo-Tovar, M. E., Arzate-Fernández, A. M., Ogata-Aguilar, N., & Landero-Torres, I. (2007). THE AVOCADO (*PERSEA AMERICANA*, LAURACEAE) CROP IN MESOAMERICA: 10,000 YEARS OF HISTORY on JSTOR. *Harvard Papers in Botany*, 325. <https://doi.org/41761865>



about the plantation<sup>118</sup>, unveils the ecological and social intricacies of an industry that has crowned Michoacán as the “Green Gold” capital of the world<sup>119</sup>.



Sculpture detail, *Plantifictions*, 2023, Photo M. Kujda

The avocado boom, originating in the 1970s, echoes the concept of Tsing in regard to monsters as a species that are endangering ecosystems and blocking natural processes of resurgence. In Michoacán, these monstrous entities manifest in the shape of land appropriation, narco wars, and pests deliberately engulfing the

118 Tsing, Anna Lowenhaupt. 2017. *The Mushroom*, op.cit.

119 Lyman, M. (2019). *The narconomics of avocados in Mexican Drug Violence: Hybrid Warfare, Predatory Capitalism and the Logic of Cruelty* (pp. 139–156). Springer. [https://doi.org/10.1007/978-3-030-20148-7\\_9](https://doi.org/10.1007/978-3-030-20148-7_9).

remnants of ancient forests. Incendiary fires, akin to the ghastly transformations Tsing delineates, render whole ecosystems to ashes, leaving behind weakened trees vulnerable to infestations.<sup>120</sup> Bark beetles (*Dendroctonus frontalis*) arrive when a forest is already ruined by fire - they are sweepers of the future in which only the most resistant organisms can survive. The pest is a threat to species livability and causes monstrous propagation, but it is only because of human-caused ecocidal activity. The symbiotic connections in the environment are extremely vulnerable, and the rapidly shifting landscape of the Anthropocene can mean both - riotous reproduction and decline and death.

The cost of the predatory agricultural expansion is evident in the process of extensive deforestation that is practiced to set up avocado monocultures<sup>121</sup>. The plantation, akin to the notion of Tsing "zone of awkward engagement"<sup>122</sup>, emerges as a contested space, entangled with ecological devastation, Indigenous resistance, and global market dynamics. The multispecies resurgence in Michoacán becomes a struggle against not only ecological disruptions but also powerful entities: big corporations, corrupted institutions, and narco cartels. P'urhépecha activists, while defending their territories, are struggling with ecocide, which involves violence and death in the face of unfolding an ecological crisis. Among them, Alfredo Cisneros Madrigal, Indigenous leader and defender of the P'urhépecha forests, paid the ultimate price in February 2023, joining around 60 documented cases of activists murdered or assassinated in the last two decades.<sup>123</sup>

120 Tsing, A.L., *A Threat to Holocene Resurgence is a Threat to Livability*, 2017, (online: <https://underworlds-blog.files.wordpress.com/2016/08/anna-tsing.pdf>, accessed: 15.11.23).

121 Reports indicate that between 2001 and 2010, the state of Michoacán lost approximately 120,000 hectares of forest, a significant portion of which was attributed to avocado cultivation, in: OEC - Mexico (MEX) Exports, Imports, and Trade Partners. (n.d.), (online: <https://oec.world/en/profile/country/mex>, accessed: 23.10.23).

122 (2006). Review: [Untitled]. 29(2), 291-296. <https://www.jstor.org/stable/24497582>

123 (online: <https://www.leftvoice.org/alfredo-cisneros-is-fifth-mexican-environmentalist-assassinated-in-2023/>, accessed: 1.10.23).

There are also other threats to the local community of this region. Indigenous traditional medicinal plant heritage is endangered by shortages of water absorbed by avocado orchards. Indigenous P'urhépecha women healers (*curanderas*) known for the use of medicinal herbs are forced to buy water packages in order to maintain their *ekuarho* plots - a prehispanic agroforestry farming system, in which various plants and cereals are grown together with vegetables.<sup>124</sup> They are trying to resist water scarcity by planting seeds of pine trees and thus attempting to initiate reforestation in the region. In this context, the avocado orchards can be seen as a landscape of economic exploitation and a necropolitical terrain where lives are sacrificed in the sake of agroindustry proliferation. In Michoacán not only humans, forests and medicinal plants are in danger; between the Mexican states of Michoacán and Estado de México stretches the famous Monarch Butterfly Biosphere Reserve, where every winter, these colorful insects migrate for spawning. However, the fragility of that ecosystem is in danger due to global warming and the decreasing population of butterflies. In 2020, Homero Gómez González, defender of the Monarch Butterfly population, was found dead next to the sanctuary. In a video posted on youtube the day before his disappearance, we can see a man of about sixty years old submerged in a swarm of butterflies, explaining vigorously the miracle of the migration season of these insects.<sup>125</sup>

The term "Green Gold" captures the economic power and the somber environmental cost. It exacts its price on Indigenous territories, biodiversity, and the lives of those steadfastly defending their land. In the avocado orchards, a grammar of geologic extraction includes racialized bodies, plants, and the land itself. The avocado

124 *Indigenous agroforestry dying of thirst amid a sea of avocados in Mexico*, 2022 (online: <https://news.mongabay.com/2022/06/indigenous-agroforestry-dying-of-thirst-amid-a-sea-of-avocados-in-mexico>, accessed: 16.10.23).

125 The Washington Post, *Homero Gómez González, Mexico's monarch butterfly defender, found dead*, (online: [https://www.washingtonpost.com/world/the\\_americas/homero-gomez-gonzalez-mexicos-monarch-butterfly-defender-found-dead/2020/01/29/697d7c94-42ed-11ea-99c7-1dfd4241a2fe\\_story.html](https://www.washingtonpost.com/world/the_americas/homero-gomez-gonzalez-mexicos-monarch-butterfly-defender-found-dead/2020/01/29/697d7c94-42ed-11ea-99c7-1dfd4241a2fe_story.html), accessed: 12.11.23).

plantation, a nexus of profit and perdition, echoes the complexities of extinction depicted by Kathryn Yusoff<sup>126</sup>. This exploitation transcends the avocado plant, seeping into the very veins of its relationality - the fungi networks silenced by pesticides or the children breathing toxins in the poisoned air<sup>127</sup>. The plantation - a mine in Yusoff's terms - dehumanizes both human and more-than-human entities, rendering them inert matter for ownership and exploitation<sup>128</sup>.

Efforts to counteract criticism through launching greenwashing campaigns, such as the one initiated by the *Avocado Institute of México*, parallel to the exploration of Tsing on conservation projects as attempts to control narratives and project a facade of sustainability<sup>129</sup>. The pseudoscientific institution, founded in 2021, invokes researcher's notion of the arts of living on a damaged planet, attempting to reconcile ecological harm with an illusion appearance of sustainable farming<sup>130</sup>. It also reflects on the idea of Tsing environmental disturbance, where ecological harm is concealed under the guise of progress. The "Green Gold," while symbolizing economic prosperity, is also entwined with a colonial geology of extractivism, perpetuating a deadly process of proliferation that jeopardizes other species and entire ecosystems<sup>131</sup>. This landscape embodies a story of ecological disruption and contested terrains, intricately woven with the local resistance and global market forces.

126 Yusoff, K. *A Billion Black...*, op. cit., p. 15.

127 Mendoza-Grijalva, L. M., Gutiérrez-Miceli, F. A., Dendooven, L., & Olalde-Portugal, V. (2008). Phytotoxicity of pesticides to earthworms (*Eisenia fetida*), different enchytraeid species and plants. *Chemosphere*, 71(3), 439–446. <https://doi.org/10.1016/j.chemosphere.2007.10.010>

128 McSweeney, K. (2014). Avocado politics: Collusion, democracy, and the war over land in Mexico. *Geoforum*, 56, 166–176. <https://doi.org/10.1016/j.geoforum.2014.07.009>

129 Tsing, A. L., Bubandt N., Gan E., Heather Anne Swanson, eds.. *Arts of Living on a Damaged Planet*, 2017 Minneapolis, MN: University of Minnesota Press

130 Ibid.

131 Lyman, M. (2019). *The narconomics of avocados*. In *Mexican Drug Violence: Hybrid Warfare, Predatory Capitalism and the Logic of Cruelty* (pp. 139–156). Springer. [https://doi.org/10.1007/978-3-030-20148-7\\_9](https://doi.org/10.1007/978-3-030-20148-7_9)







*Cybershamanic Garden, Orońsko Triennale, 2023*



## **BANANA PLANTATION: A THREAT OF DOUBLE EXTINCTION**

The banana plant, or *Musa paradisiaca*, is a plant with a particular morphology. It has followed the path of colonization through the Global South: from Asia and Africa to Latin America and Caribe - a colonial trajectory that paved the way for slavery, and threatened the livability of the whole ecosystems. The banana is the largest herbaceous flowering plant in the world; its stem is hidden underground, and the whole plant is composed of the imbrication of folded leaves, expanding at remarkable speed. The robust portion above the ground that seems to be the trunk of a treelike organism is a pseudostem, from which concentrically formed leaves grow. It's center develops the inflorescence stalk. That monumental shape made *Musa Paradisiaca* a subject of sacredness for ancient Mesoamericans.

The hermaphrodite flower stalk grows like an inverse spine cord (peduncle) whose tip hides several groups of sterile "male" flowers subtended by brilliant purple bracts followed by "female" flower clusters on the same stalk from which the characteristic fruits appear without the need of pollination. Its true stem grows beneath the ground as a rhizome, a descentered root system interconnecting these vegetal tissues with one another. These plant organs facilitate its replication through a process known as cloning. Rhizomes, from an ontologic angle, proved to be very generative organs in biology, and so they are in philosophy and arts, however, in the case of bananas, they became the biological link that tied humans and plants in an intrinsic relation of codependency and co-evolution.

But it was not always like this. When the first peoples in Southeast Asia about 10,000 years ago started to enmesh with the *Musa* plant, it still produced fruits with big seeds that made it hard to consume. Through a long process of selection and cloning, techniques to grow the fruits with smaller seeds were developed until the seeds became sterile - bananas could not reproduce anymore by themselves. As a result, nowadays the process of producing genetically identical clones is shaped by human-assisted reproduction methods employing rhizomes and other tissues. Banana plantations as a result of colonial expeditions transformed this plant into

large monocultures cultivated by slaves and Indigenous peoples in Mesoamerica. However, banana It's growth has proven to have terrible consequences for the ecosystems, not only by wiping out the forest in order to prepare the land for the plantation but also because of the lack of genetic diversity, which puts the future of the banana at risk of extinction. The most known kind of banana - bright yellow Cavendish - is very accessible. The vast worldwide monoculture of genetically identical plants leaves the Cavendish intensely vulnerable to any disease. Fusarium wilt of banana, also known as Panama disease, is a fungal pest that is currently spreading among the Cavendish variety, materializing its danger of extinction. But as it is simultaneously a *ghost* haunting the landscapes of contemporary Mesoamerica through its "replication". A process of infinite cloning that has become its main reproduction for thousands of years. Bananas are the fourth largest crop in the world<sup>132</sup>, Bananas are deeply ingrained in colonial imaginaries as a symbol of the exoticness of the Global South. The pejorative note of "banana republic," after being coined in the 90s for describing the weak economies in developing countries, later became the symbol of the politically unstable, impoverished, and corrupted territories, of which the economy relies on exporting just one product. "Chiquita" is the actual name of The United Fruit Company, an American transnational company extending along the Caribbean, Central and South America. The corporation is historically known for labor exploitation, influencing governments of the countries of its interests, and being a world monopoly in the banana global trade (Moberg, 361). Meanwhile, the harmful effects of the company's activity have caused extended damage in Latin and Central America until the present time. In Guatemala and Honduras, a banana with a Chiquita label is the symbol of death on multiple levels: it intertwines with labor exploitation and social injustice, disruption of jungle ecosystems, people's land

132 With production covering about 477,000 hectares globally and annual production of around 2.5 million tons, according to the Food and Agriculture Organization (FAO). Native to south-eastern Asia, they are the most traded fruit, cultivated in subtropical regions, in countries such as Honduras, Guatemala, Costa Rica, Panama, Colombia, Ecuador and the Philippines to name just a few. Colonial administration and cheap production of bananas guaranteed its popularity and global dominance. (Food and Agriculture Organization (FAO). "FAOSTAT Crop Production Database.", (online: <https://www.fao.org/economic/est/est-commodities/oilcrops/bananas/bananafacts/en/>, accessed: 13.11.23).

appropriation, and submission of the Global South. In the early twentieth century, Multinational American companies transformed the banana into a fully global commodity, building dictatorships that secured its interest by the way leading to genocides of Indigenous and Black populations. "Masacre de las Bananeras" happened in Ciénaga, Colombia, 6th of December of 1928, when workers from United Fruit Company were killed by the military in response to their prolonged protest being one of the examples. Gabriel Garcia Marquez some years later depicted those events in his famous book, *One Hundred Years of Solitude*.

Honduras and Guatemala are the two countries of Mesoamerica where the relationships with the banana plant have had profound economic and political repercussions as well as caused ecological destruction. The Honduran North Coast's banana industry was dependent on the United and Standard Fruit Companies for most of the twentieth century and still persists under its control. This is the place where Garifuna people, Indigenous descendants of the Caribe and Arawak communities, arrived in the end of the 18th century, due to their forced displacement from San Vicente island by the British Empire. The community settled on the coastal areas of Honduras, however, with the arrival of banana companies in Central America in the early twentieth century the community must have faced a challenge. The intrusion brought significant changes to the way of life for the Garifuna people, impacting their traditional practices and social dynamics. The introduction of commercial agriculture and banana plantations, reshaped the economic landscape and had lasting effects on the Garifuna community. Nowadays the community lives in constant struggle and opposes land grabbing because of tourism, agro-industry, and expanding African Palm and banana industry<sup>133</sup>. The Garifuna story is the story of discrimination shaped by regional racial hierarchies. Garifuna people are not only used as cheap labor but also they are constantly being denied their rights to claim their indigeneity and the land. Since the consolidation of the big monopolies of Chiquita, the necessity to expand the plantations has translated into land-grabbing practices. When large territories of forest and jungle

133 Jung, Laura. *African palm and Afro-indigenous resistance: Race and dispossession of Garifuna lands on Honduras' northern coast*. 2011, p. 57.

are taken, natural ecosystems with high diversity in order to have more land for planting, this brings not only the problem of deforestation but also ignores the millennial connections that the banana plant has established with fungi, insects, animals, and other plants, in which its strength and evolution relies on. The banana plantation is the perfect example of what Kathryn Yussof calls “geographies of extraction”, that have facilitated the expansion of an administrative model of nature where the stories of the *inhuman* (black and Indigenous peoples, plants, animals, and minerals) are turned into objects of exploitation, material suitable for looting that translate into capital. The result of this is the extinction of a large number of species, economies built on poor labor, and inequality where people of color pay full price for the cultivation of crops.





*Cybershamanic Garden* exhibition preparation, Orońsko 2023,  
photos by Ewa Szatybelko.



## II METHODOLOGY

The works that I have realized during the past three years comprehend a variety of interdisciplinary research practices that delve into Indigenous, decolonial, and anti-colonial inquiries with the aim of understanding the ways in which Mesoamerican materialism engages with the contemporary art context. The body of work that I have realized consists of a series of installations and interventions where sculptures, electro-conductive ceramics, plants, fungi, biotechnological apparatus, and virtual algorithms build up generative audiovisual environments modified by the feedback of biodata. These installations implies using biotechnologies that are modified by transforming them into audiovisual generators in order to build an open system of multispecies communication.

The composition of a methodological framework where contemporary materialities can mix with the ancient, bypasses the modern epistemic time-space barriers. What follows is an exploration of the methods employed as articulation of such reflections. I have created three concepts (two of which originated from Nahua philosophy), that explore interrelatedness, agency, and mutability of matter and are alternatively used across my body of works, that is: *yolia*, *cybershamanism* and *in xochitl, in cuicatl*.

## **BIODATA**

During my artistic research, I delved into an experimental exploration of biodata as a way to interrelate with the ecosystems of my installations. I have studied the possibilities of Arduino programming and as an outcome of those experimentations, I have developed bio-sonification as a method of interdisciplinary artistic research. Sonification, presenting biological data from the plants in the form of sound can be a method of awareness and realizing how plants are communicating, and reacting as well as how their emotions can be materialized by sound or image.

My installations consist of plants placed inside electroconductive ceramic sculptures that connect through electrodes, bioelectric circuits, and computer units to a generative audiovisual system. When the body of plant senses, for example, movement, temperature or the proximity of a person the sound and video changes in relation to the patterns of biodata. Ceramic sculptures are also sensitive to touch or contact with biosignals (because of the electroconductive glaze). When a spectator or "user" of the installation touches its surface, the sound or image is a result of the bio impulses of plant and human mediated by the vessel. Different patterns of sound and image can form when the person runs its fingers through the sculpture. Those experimentations resulted in multiple arrangements while connecting many plants and letting signals travel from plant to plant, from plant to sound, and from plant to image. The development of technologies employed for this art experimentation was systematically developed from a basic one-unit circuit to large installations with many points of reception.

## **GENERATIVE SOUNDS**

The sounds created for this installation were the result of an evolving research process, which involved experimenting with granular, FM, and subtractive synthesis. As I simultaneously built both - analog and digital synthesizers - my goal was to achieve the greatest possible number of parameters that could be controlled by incoming biosignals from plants. To achieve this goal, I worked

Right: Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photo by Małgorzata Kujda.



in parallel with the Arduino IDE, MaxMSP, and Ableton Live to modulate the sound. I built four analog sound generators using Arduino boards and my own circuitry based on literature about DIY sound analog design. Two of these were FM synthesizers, and the other two were based on granular synthesis. I built these analog circuitries because I wanted to be able to experiment outdoors, sonifying the signals of plants or mushrooms in the forest without the need to bring a computer. This also allowed me to achieve a certain complexity in modulation, frequency, and texture. The first time I tested this setup was at the Art Symposium in Morawa in 2022, where I attempted to sonify a mushroom under a monumental fallen tree. To go wireless, I built two synthesizers - one FM and one granular - with MIDI input that could play the signals sent by *Meripilus giganteus*, the fungus from under the tree.

## **GENERATIVE VISUALIZATIONS**

Generative visualizations came after the first experimentations with sonification. My idea was to diversify the outputs of the biodata and experiment with the perceptual properties of these signals. I made an initial prototype on the platform *Processing* in order to coordinate it with Arduino, but soon, I realized I would need way more complex parameters in order to achieve a visual result that could go beyond a graphic pattern or allow me a bigger range of modulation and splitting of the signals, and the use of 3D graphics. This led me to the experimentation with other generative platforms from which finally I decided to work with TouchDesigner since the modular matrix of the program allows a complex level of design, and it is able to receive data from my arduino board with biodata.

The first visualization consisted of a radial image that grows and morph in scale and changes colors depending on the data given was presented at Malta Festival in Poznan in 2022. The plants shown dynamically in a circle changed this video work, nevertheless, I kept my research in order to achieve better results that could mimic some patterns found in nature, like mycelium, or the structure of leaves. I found this research quite insightful, and after some time I started creating a black-

Right: Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photo by Małgorzata Kujda.





and-white liquid generative video work that would continue to evolve through the next installations.

Fired ceramic, as a material, is almost indestructible, which is why artifacts such as potsherds, figurines, or vessels are common in the archaeological record of Mesoamerica. Qualities of ceramic objects are used to determine the origin of a particular piece, and because clays contain organic materials, they can be dated through radiocarbon analysis<sup>134</sup>. This specific quality makes clay able to “travel in time and space” and “contain it” in its tangible matter.

## **Earthly Matters**

During the past three years, I have experimented with ancient ceramic techniques, aiming to establish a dialog with Mesoamerican materialities and investigating the way that they could manifest in the context of contemporary artistic investigation. I explored different variations of ceramic building techniques, from coil building, pressing, burnishing, and casting through experimental glazing and firing to finally combining electroconductive circuitry with ceramic works. All of these processes were simultaneously intertwined with a speculative fabulation that engages with the figure of Tlaloc, which represents a more-than-human materiality and a worldbuilding narration.

Clay is an agential matter that performs, morphs, entangles, and mutates through a creative process. The Peruvian anthropologist Marisol de La Cadena, who worked closely with Runakuna Indigenous people in the Andean region of Peru, in her book *Earthbeings* (2017), builds a central axis of the research on Runakuna knowledge. *Earthbeings* translates from the Quechua word - *tirakuna*, composed of the word *tira*, meaning *land*, and the plural suffix – *kuna*. She describes earthbeings as entities that, rather than inhabiting the world, “are” themselves mountains, lagoons, rivers, plants, and other traces in the landscape, and they are building

134 Wright, Mark Alan (2013) The Cultural Tapestry of Mesoamerica, Journal of Book of MS Vol. 22 : No. 2 , Article 2, (online: 2167-7565, accessed: 12.08.23).



relationships of mutuality and care with Runakuna. In a similar manner, these earthly relationalities are articulated in a performative manner through Mesoamerican materialisms when addressing either sculpture processes, referring to earthly entities through speculative fictions, creating plant-ceramic companionships, or building installations with ground drawings.



*Volcanic Technologies of Smoke series, 2021*

Ancient Mesoamerican ceramics represent a vast artistic, conceptual, and technical cultural legacy. The notion of personhood applying to both humans and non-humans is a common quality in many of them. As a part of my investigation, I analyzed a large dataset of ceramic vessel images,<sup>135</sup> as documented in the “archeology” collection of photographs of the National Museum of Anthropology and History (MX) in the collections of *Mexica, Teotihuacan, Toltecs, Maya, Cultures*

135 Ibid.



*Volcanic Technologies of Smoke series, 2021*

of the West (MX) and Ceramic Archives,<sup>136</sup> this visual research has much inspired and influenced my works. The characteristic attributes of personhood in many of the ceramics (mostly from the Classic Maya and Mexica period) hieroglyphic, iconographic, and sculptural objects are the evidence that indicate the presence of self. These features also appear in my sculptures. I suggest that the presence of a face indicates the potential for an entity (or an object) to act in person-like ways. Many of my sculptures, objects or even the installations as a whole reflect features of personhood that Mesoamerican cosmivision contains in the figure of *nahual* (from the Nahuatl<sup>137</sup> word - *nāhualli*) - a shapeshifting entity with the power

136 National Museum of Anthropology/Archeology, (online: [https://mna.inah.gob.mx/colecciones\\_arqueologia.php](https://mna.inah.gob.mx/colecciones_arqueologia.php), accessed: 11.10.23).

137 Nahuatl is the official language of the Aztec Empire and a common language of the Mexican Valley before the Spanish *Conquista*. It is still spoken nowadays by almost two million Indigenous people in México.

to morph between humans, plants, objects and other more-than-human entities.<sup>138</sup> The sculptures, deeply connected with the earth, are in that sense expressions of the more-than-human corporealities due to their mutability. I relate it with the concept of the *nahual*, as an entity that has the ability of therianthropy. By integrating Mesoamerican materialisms into the artistic framework of my research I aim to elucidate an expanded notion of matter, which possibilite an encounter with the materials as embedded with meaningful insights. The multitude of references from vegetal and vital to earthly, in many of my works morphs into different narratives and storytellings.

138 Austin, Alfredo López, Russ Davidson, and Guilhem Olivier. *The Myth of Quetzalcoatl: Religion, Rulership, and History in the Nahua World*. University Press of Colorado, 2015.



Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photo by Małgorzata Kujda.



## 2.1. YOLIA: FLUID MATTER

Yolia is a concept in my methodology that explains the relatedness studied in my installations and entanglements between the human and the more-than-human. It is understood as circulation through agency, materiality, and interrelatedness. It materializes into electricity, bio-data, generative video, and sound. In ancient Mesoamerican thought *yolia* was circulating as a vital substance within the worlds of both - humans and non-humans<sup>139</sup>. This complex notion, primarily understood as a designate of the "soul" by Europeans, in fact, had multiple meanings in the Nahuatl language. Following the explanation of Austin, *yolia* was likewise possessed by animals, plants, mountains, and other more-than-human beings.<sup>140</sup> It was, in fact, present in all living things. *Yolia* is the first concept that indicates a path for thinking by creating a vital platform for understanding matter as a fluid notion that bonds multispecies space of relationality. *Yolia* is a Nahuatl word between the *yollotl* - "heart" and *yol* meaning "life" or *olli* - "moving energy".<sup>141</sup> A way of becoming a movement. It could be translated as "that what makes to live"<sup>142</sup>. In my works, this concept helps to understand the mutating qualities of the living essence that is contained in the elements of my installations.

In these material settings, the impulses generated by a kindred plants are picked up by the electrode attached to one of its leaves, creating an articulated atomic

139 López A., *Human Body and Ideology Concepts of the Ancient Nahuas*, 1988 p. 232.

140 Ibid.

141 In the Aztec ancient ontological view, beings were made from, other than the physical body, three main animistic entities: *teyolia*, *tonalli*, and *ihiyotl*. These elements were inextricably connected with the internal life force, being an ethereal part of the soul or a heart. López Austin, Alfredo. 1988a. *The Human Body and Ideology. Concepts of the Ancient Nahuas*. 2 vols. Traducción de Thelma Ortiz de Montellano y Bernardo Ortiz de Montellano. Salt Lake City: University of Utah Press.

142 Ibid., p. 222.

movement that would circulate through the wires until it reaches either another plant or an Arduino board. If it reaches one of the boards, the incoming voltages from the plant would then be transformed into binary code (serial) by the Arduino board. This code is then processed through an algorithm and translated into frequencies (MIDI), which are finally synthesized into sound and spread through the room, triggering new interconnected actant events with other plants. *Yolia*, as a vital force in its multiple transformations, allows an understanding of the interrelatedness of matter as something that predates the individual elements of an entanglement. In this sense, it proposes a mesh of interrelations and transformations as the elements that give meaning to each other through the ways they affect and are being affected. It constitutes matter as constantly active rather than passive and inert, parallel to the perspective on objects, plants, and other more-than-human beings present in my installations.

I focus on the ubiquity and fluid values of that concept, which connect the elements in my works, where all the parts are alive, active, and in motion. The generative sound and image give a possibility for a new quality to emerge in understanding relations with non-human entities. Similarly to *yolia*, sound can be perceived as a circular force that bonds together plants, humans, the more-than-human with other materialities in my works. Implementing the *yolia* concept into the methodology allows me to connect both my Western and Indigenous frameworks as well as organic and non-organic parts of my artwork. By serving as intermediaries, these materialities play a crucial role in elucidating the intricate connections that bind the past, present, and future in my installations. Drawing inspiration from the ancestral wisdom of Indigenous communities and their profound engagement in attentive interactions with plants and more-than-human beings, my works embark on an in-depth exploration of Mesoamerican cosmologies.



## 2.2. CYBERSHAMANISM - ALTERNATIVE MODERNITIES

*There cannot be a future if we have not previously dreamed of it.*

Rodrigo Bastidas Pérez<sup>143</sup>

Technology, like science, logic or mathematics, exists in the collective consciousness as a universal category of knowledge, constituting a visual imaginary of the future through science-fiction films and literature. Commonly perceived as the result of scientific discoveries, it is usually described by Western thought as an element of historical development on the road to expansion and progress, assuming at the same time the expansion of human competence, the implementation of a new process, as well as a vision of social progress and the subsequent improvement of a community's life. However, this process is relative, due to the fact that progress can have different faces depending on the contexts in which it occurs. When European modernist thought began to emerge in the 19th century, the notion of technology became dominant for this cultural circle, thus establishing hegemonic technological thought. In this view, the production of science is denied to non-Western discourses, and the global geopolitical order is supported by the existence of dichotomies such as, developed - undeveloped or civilized - uncivilized.

In my works, however, I am primarily interested in the humanistic and situated aspect of technology, that can be found in Indigenous thought. Indigenous understanding of technology differs from what is defined by this category in European culture. As Mishack T. Gumbo argues, technology in the indigenous view is based on locality, specific context, balance and a non-anthropocentric perspective, and has a moral character and an element of responsibility, both scientific and social<sup>144</sup>. In technology created by indigenous communities, the context in which the technology is located is also important. While traditional knowledge systems are based on universality, indigenous knowledge systems

143 Jiménez Santofimio, Camilo, *There Cannot be a Future if We Have not Previously Dreamed It*, Goethe Institute, (online: <https://www.goethe.de/ins/us/en/kul/wir/tra/22356310.html>, accessed: 16.11.23).

144 Mishack T. Gumbo., P. John Williams, *Indigenous Technology Knowledge Systems*, 2023, p. 85.

often respond to the specific needs of a community.

According to Yuk Hui, Western philosophy has moved from mechanism to organism along with the emergence of cybernetics. It thus puts an end to the organism-mechanism opposition, thus liberating thinking about technology. Feedback theory by Norbert Wiener and autoreference or, to put it in Hui's terminology, recursion or recursivity are present in the cybernetic circuit. While remaining mechanical, cybernetic machines are able to assimilate the behavior of an organism. An electrical circuit is composed of organic and non-organic elements. This power of matter and its entanglement creates a sense of intimacy for all bodies inextricably enmeshed in a dense network of interrelationships. In the tangled world of vibrating matter, hurting one part of the network can mean hurting the entire system or even oneself.

Cosmotechnics being the antinomy of technological universality<sup>145</sup> situates technology in a local context and allows for a more situated view in which each technique is dependent on and limited by a given cosmology. According to Hui:

*Technology is not anthropologically universal; it is enabled and constrained by particular cosmologies, which go beyond mere functionality or utility. Therefore, there is no one single technology, but rather multiple cosmotechnics.*

The question of technology as something local rather than universal and located on the periphery of the main narrative rather than at its center may be the answer to many contemporary crises. Both knowledge and fiction produced in the Global South contain visions of the future that take into account local issues and contexts.

Referring to utopian or dystopian futures, technological thought takes us to new, often symbolic places where technology becomes the main motive. In contrast to hegemonic technological futurist visions, concepts such as indigenous futurism or Afrofuturism are methodologies for speculatively taking on these imaginaries, for example, by finding creative technological solutions to contemporary problems

<sup>145</sup> Ibid. Hui, "Cosmotechnics as ...2017 - e-flux". e-flux.

and crises and allowing us to dream of possible worlds. In these imaginings, the vision of technology serving only the capitalist system is often deconstructed. In my study, I focused on the question of how art can contribute to the imaginary of technological development. How can it influence and change the imaginary of technology? This does not necessarily involve a complete rejection of modern technology, but rather a search for the possibility of diverse and alternative technological futures. In some science-fiction works created in the Global South, different ways of surviving in a post-environmental catastrophe world are presented, i.e., for example, in the South African film *Pumzi*, where director Wanuri Kahiu presents a vision of a post-World War III world in which water scarcity has caused liquid pollution to be filtered and recycled back into drinking water by a self-sufficient community<sup>146</sup>. Situated knowledge,, helps counter the imposition of inadequate hegemonic technologies on given communities.

The term *ciberchamanismo* (cybershamanism) appears in Rodrigo Bastidas Perez's anthology of Latin American science fiction entitled *The Third World After The Sun (El tercer mundo después del sol)*. In that book, the author, speaking of the genre as a powerful medium for speculating on the future of the continent, described cyber shamanism as a practice that combines ancient ancestral knowledge with modern science and technology. In my work, I borrow this term and extend it, applying it to the context of my art practice and Mesoamerican materialisms. The concept of cyber shamanism or virtual shamanism also appears in the scientific literature in the context of virtual space and the transfer of sacred space to the Internet.

Cybershamanism as a decolonial strategy of resisting classic take on technology, is a storywork methodology that interconnects both science and myth in order to revitalize the fractured ontological relation between those two epistemic fields. It includes the production of assemblages that interconnect humans with worlds of the living and non-living beings with elements of technology and organic biomass. This strategy addresses the question of how to generate diverse

<sup>146</sup>Pumzi, dir. Wanuri Kahiu, 2009.

understandings of technology, abstracting from a singular vision and pushing forward for *technodiversity*<sup>147</sup>. Indigenous pathways might bring us to different places and different futures. Technology is usually described by Western thought as a history of development on the way to expansion and progress; besides, it refers to utopian or dystopian futures. However, a technology that addresses alternative epistememes can prompt different answers and generate new paradigms.

Cyber, referring to the virtual space of the Internet, is used by me as a suffix that describes modern technology. Virtual space as “space without space” according to Castells, transcends physical space and allows one to enter another world. Shamanism has a similar function, while it refers to activities in the sacred space constituted by the human mind (M. Eliade). In my view, cybershamanism has become, in a way, the opposite of According to Mircea Eliade, sacrum space is constituted by human mind. sacrum space is constituted by human mind (Eliade). In my view, cybershamanism has become, in a way, the opposite of cyberspace as understood by William Gibson and captured in his 1984 book *Neuromancer* as - “a consensual hallucination experienced daily by billions of users....” I am committed to combining technology with analog elements to create a space not saturated with digitality and technology, but rather inspired by it. In my artistic endeavors, I situate technological knowledge in the context of ancient Mesoamerica, where this knowledge manifests itself in all aspects of life, including nature, where, for example, plant cultivation was a separate type of technology.

The solutions I used in my installations, such as the use of electroconductive ceramics inspired by Mesoamerican mythologies, the use of visual references to Mesoamerican iconography, combining elements from different time orders, or new technologies with analog solutions prove its contemporary and up-to-date nature.

The concept of cyber shamanism as a recurring motif in science fiction stories from the Global South is emerging as a practice rooted in indigenous epistemology,

<sup>147</sup> Hui, Yuk, *A Conversation on Art and Cosmotechnics, Part 1 - Journal #124 (e-flux)*, February 2022.

that moves between technology and nature as undifferentiated worlds in order to heal or restore the balance between the human and the superhuman. Storytelling was a primary and critical tool for indigenous cultures to build knowledge (Linda Tuhiwai Smith). It not only refers to ancient indigenous histories, but also builds new narratives that create a decolonial future in which human and non-human entities can build mutual entanglements. Cyber Shamanism, then, not only refers to ancient indigenous stories, but also constructs new narratives. For Bastidas, the need to write science fiction in the Global South is an epistemic reclaiming of imagined futures, as well as technological discourse created outside of Europe.

In this way, the future is defined by the vision of multispecies ontological emancipation pursued by cybershamanism. This means building technologies to enable becoming with other beings, and combining elements of shamanism, indigenous knowledge systems and digital technologies. This means building technologies for becoming with other beings, and combining elements of shamanism, indigenous knowledge systems and digital technologies. In the installations *Cybershamanic Garden* and *Plantifictions*, technology was used to create an immersive environment in which biotechnology helps connect human relationships with a collection of non-human entities, while evoking a space in which circulation, as in an organic machine, all elements interact and are equally responsive.



*My name is Dessicated Hide, 2022*





*Tlaloque, Cybershamanic Garden, Orońsko Triennale 2023*

### **MATATL (Entanglement)**

*Matatl*<sup>148</sup> is the Nahuatl word for web. It is used to describe an embroidery work with vegetal materials. This term allows me to describe the assemblages or the way I connect different materialities together through my installations. The *matatl* is the focus on the ontologic relationships between the human and the more-than-human through my methodological framework of *yolia*, *nahualism*, and *cybershamanism*. They are entanglements or relational configurations in my installation work; they are the underlying structure that bonds the entities present in each entanglement through meshes of sound, image, and electricity. The agents, while some of them might be less visible than others in fact, configure the structure of the space, which is in itself an entity that provides a framework

148 Some Indigenous Lexics in the Spanish of Guatemala, Siglo XVIII, Nuria Polo Cano, Núm. 4 Pág. 185-202, 2005.



Bio-data real time generated visualization, *Plantifictions*, Contemporary Museum Wrocław, 2023, photo by M. Kujda.  
of care and reciprocity for all beings.

## **ATEZCATL**

*Atezcatl*, from the Nahuatl *mirror of water*<sup>149</sup> (generative video), is the complementary part of *Mixtli* (clouds of sound), but its generative materialities concern fluid images, located in screens that react to bio impulses that run through the *Matatl* (entanglement). These reactive video-processing works use biodata coming from the plants and the *Tlaloque* to reconfigure an algorithm that transforms the video in real-time based on the different aspects sensed by the plants.

149 Martínez Roberto y Mikulska Katarzyna, *La vida en el espejo: los mundos míticos y sus reflejos entre los nahuas del siglo XVI y otros pueblos de tradición mesoamericana*, en *Dimensión Antropológica*, Año 23, vol. 68, septiembre-diciembre, 2016, pp. 7-52, (online: <https://www.dimensionantropologica.inah.gob.mx/?p=13803>, accessed: 18.08.23).



Transducer attached to the metal plate the sound is resonating through. *Zabilar*, Oleśnica, 2023.

## **MIXTLI**

*Mixtli*<sup>150</sup> (sound clouds) are generative materialities of sound that are produced by relations with the more-than-human in my installations. They are made of a combination of granular synthesis that uses textural masses of micro sounds and bioelectric impulses that modulate them through Arduino boards. The clouds of sound entangle with plants and *Tlaloque* (*electroconductive sculptures*) as its sensors. *Mixtli* (*clouds of sound*) is constantly changing in relation to the temperature, humidity, movement, and electric changes, sounds are always different, they never repeat and it is the result of the relations that configure the

150 Báez-Jorge, F. *Los oficios de las diosas*, Xalapa, Universidad Veracruzana, 1988, "Planos simbólicos del Templo Mayor (comentarios a las hipótesis de Eduardo Matos Moctezuma)",



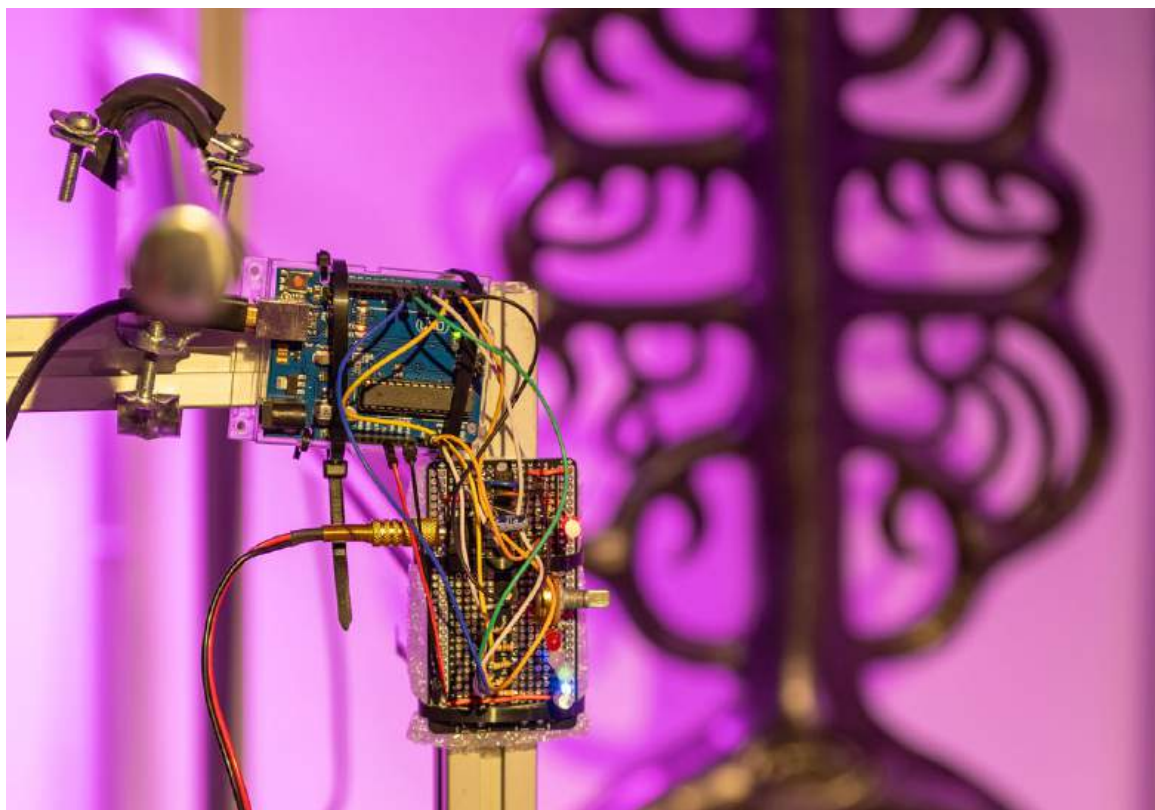
*Tlaloque series, 2022*

*Matatl* (entanglement).

### **TLALOQUE**

The *tlaloque* are electroconductive sculptures that are a significant component of my artistic research. These ceramic sculptures have the ability to conduct electricity and can become electrical transmitters of plant biosignals. When a plant is placed inside a *Tlaloque*, both the plant and the sculpture transmit their electric current to an Arduino board. This electric current is later transformed into either *Mixtli*, which refers to generative sound works, and *Atezcatl*, which refers to generative videoworks.





Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photo by Małgorzata Kujda.





### III. UNEARTHING COLONIAL LEGACIES: EXPLORING THE HISTORICAL IMPACT OF PLANTS FROM THE GLOBAL SOUTH

*There can be no discourse of decolonization, no theory of decolonization without a decolonizing practice.*<sup>151</sup>

**-Sylvia Riviera Cusiquanqui**

The body of works presented below is divided in two parts. The first is related to my explorations about the plantation, hauntology, multispecies communication, and decolonial botany. The second part is where I consolidated these topics into the proposal of Mesoamerican materialisms, giving place to a series of projects connected with the colonial trajectories of four plants endemic to territories of the Global South and strongly connected with its colonial history: Avocado Plant (*Persea Americana*), Banana Tree (*Musa x paradisiaca*), Monstera (*Monstera deliciosa*) and Aloe (*Aloe vera*).

<sup>151</sup>Cusicanqui, Silvia Rivera. *Ch'ixinakax utxiwa: On Decolonising Practices and Discourses*. Ediciones Tinta Limón, 2010.



### 3.1. LAS PRZEKRÓJ

A site-specific project made in collaboration with Aleksandra Kubacka, in the forest of Rogalinko. The sculpture focuses on materiality of time and the temporality of space in the Plantationocene. Making an archaeology of the practices of deforestation in the north of Poland, gathering wood from the local sawmills, and re-placing the wood in its original location from where it was displaced. The project established a dialog between the current status of the forest and the wood as a living material connected with a precise location. The result of this process ended up in a sculpture of a three meter cube of wood made of around twenty three different kinds of wood.

In her text, *A Threat to Holocene Resurgence is a Threat to Livability*<sup>1</sup> Tsing describes the ways in which plantations make resurgence impossible by destroying the meaningful relations that species depend on in order to survive. According to her, it is: "the work of many organisms, negotiating across differences, to forge assemblages of multispecies livability in the midst of disturbance." She also points out that the ecosystem of the plantation lacks two very important elements: compassion and love for the land. Without the cooperative work of many organisms and relations that are built between many species, the landscape becomes a monocultural desert and plantations - incubators for diseases and pests, where slavery is used to provide the necessary labor force. Plantationocene, therefore, is the epoch that sets the panorama of the socioecological consequences of the plantation agriculture model that permeates across the global economy.

<sup>1</sup> Tsing, A.L., *A Threat to Holocene Resurgence is a Threat to Livability*, 2017, (online: <https://underworlds-blog.files.wordpress.com/2016/08/anna-tsing.pdf>, accessed: 15.09.23)..







### **3.2 MYCELIUM NETWORKS OF STICKY TRANSMISSION**

The project follows my current research about plant intelligence through the use of deep listening practice and bio-sonification techniques. These tools allow me to embrace a radical empathy towards other species as well as to create a network of sound symbiosis where plants, fungi, humans and technology can interrelate in non-hierarchical ways, producing new kinds of knowledge. John Cage begins his book *A Mycological Foray* by saying: "I have come to the conclusion that much can be learned about music by devoting oneself to the mushroom", but can we understand mushrooms better through sound?

I have focused on the relationship that emerged between a recently fallen beech tree in the forest of Morawa and the fungi *Meripilus giganteus*, as polycenter of interspecies collaboration. The project addresses the role of mushrooms as creators of shared micorrizal networks between plants. I am interested in the vast range of connections that are triggered when a tree dies or falls inside the forest, and the way in which mushrooms take a vital part in distributing the information to the close environment. For this project in the context of the *Art Symposium Było, jest i będzie*, I developed a wireless version of my bio-sonification device, which enabled me to create a sonic ensemble inside the forest, tracking the bio-signals of the mushrooms and turning them into sound.



Exhibition view, Malta Festival Poznań 2022, Domie Gallery.



### 3.3. CHINAMPA LAB

*Malta festival, Domie Gallery, 2021. 48 m2 installation, 8 audio channel*

(*Monstera deliciosa*), rubber tree(*Hevea brasiliensis*), dumb cane (*Dieffenbachia*), Palma Areka (*Dipsis lutescens*), Arum Fern (*Zamioculcas zamifolia*), electroconductive ceramics, Arduino boards, screen, audio and electric wires, branches, speakers, audio interface, and computers.

Chinampa Lab is a kincentric decolonial vegetal fiction that aims to invoke human and non-human ghosts of Indigenous territories in the struggle of dispossession in the territory of contemporary Mesoamerica. These hardships wave paths of reconnection with nature by imagining possible futures and multiple worldlings. The installation consists of five plants, five electroconductive ceramic vessels, bioelectric circuits, electrodes, and a tensegrity structure made out of branches. All elements are interconnected by bioelectrical signals flowing through the copper wires, electrodes, clay, plant root systems, leaves, and Arduino boards transforming biodata from plants creating a generative audio-visual environment. *Chinampa Lab* explores the potential of interaction and communication between plants, objects, and humans. By delving into possibilities of dialog beyond language, through the practice of radical empathy with other species and deep listening, it tries to examine the boundaries of interspecies dialogue.

The introduction of monoculture as the main form of agriculture since the 17th century, in contrast to more complex and expensive types of tillage, has capitalized the natural resources and started distributing them internationally in a very short time. *Chinampa* refers to the ancient multispecies agro-hydrological technology that Mexicas (Aztecs) developed based on floating crops built on the surface of shallow lacustrine wetlands, for example, Xochimilco Lake in Mexico City. These agricultural structures provided many benefits for the inhabitants as a sustainable practice whose



Exhibition view, *Chinampa Lab*, DOMIE Remont, Poznan 2022.

value is not only productive but also economic, environmental, cultural, social, and ontological. These constructions were made of sowed willow branches called *ahuejotes* (*Salix bonplandiana*), weaved around a plot. The *chinampas* were an entanglement of edible and non-edible plant species, where human reciprocal relations operated within a collective organism, interlinking the roots of plants to the bodies of water, that fixated the chinampa to the bottom of the lake, providing a livable ecosystem where *milpas*, agricultural entanglements of fruits, veggies, herbs, and flowers grew all year long. Its intricacy is embodied in the installation by the scripts, circuits, and cables that, after being set, build up generative sounds and images on their own.

*Chinampa Lab*, as a symbiotic space, explores the possibilities of such interaction by creating a space crossed by a bioelectrical grid that connects human and more-than-human, moving into a relational ontology of interspecies communication.



Exhibition view, *Chinampa Lab*, DOMIE Remont, Poznan 2022.

In the installation, inside the ceramic vessels, there are five different plants endemic from the Global South that are connected with the concept of plantation such as monstera (*Monstera deliciosa*), rubber tree (*Hevea brasiliensis*), dumb cane (*Dyffenbachia*), Palma Areka (*Dyopsis lutescens*) or Arum Fern (*Zamioculcas zamifolia*).

*Chinampa Lab* recalls the Indigenous cosmologies of Mayans and its technologies of webbing between species; the project proposes a decolonial approach towards contemporary theories of networks. It revolves around the ancient principle of Mayan culture, which states: "I'm another you" ("In lak ech"). This thought helps to broaden the idea of linear communication among different species and gives the possibility of a better understanding of knowledge as the collective intersection of multiple agents.



Exhibition view, *Chinampa Lab*, DOMIE Remont, Poznan 2022





Exhibition view, *Chinampa Lab*, DOMIE Remont, Poznan 2022





*Zabilar*, exhibition view, Forma Otwarta Oleśnica, 2023, photos by Katerina Kouzmicheva

### **3.4. Zabilar. Gardening Light. Harvesting Sound**

*Zabilar: Gardening Light, Harvesting Sound* is a speculative circulatory entanglement weaving with the organic and nonorganic materialities informed by the knowledge of Indigenous ethnobotanics and their practices of deep listening to plants. The installation explores the role of zabila (from Spanish *sábila*) as a plant of power,<sup>1</sup> this ubiquitous succulent is known for its mystic and healing properties. The project focuses on the plant's potential to create "other possible futures" through the use of sound and generative images.

1 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6934303/>, accessed: 19.10.23).



*Zabilar*, exhibition view, Forma Otwarta Oleśnica, 2023, photos by Katerina Kouzmicheva

Aloe is a plant that since ancient times has build ties with the Black and Indigenous peoples in the Global South. They have not only acknowledged this plant for its medicinal properties but also become allies in the process of resistance. In this sense, they have forged a kind of kinship constituted by reciprocal relations of care. In *santeria* and *curanderia* (healing practice), aloe is a plant that seen as a guardian or protector. People in many parts of Mesoamerica and Caribe often place this plant near the entrance of their houses for protection. Ancestral kinship goes back more than 7,000 years to ancient Egypt, where this healing plant was used in ceremonies of death. In the installation, aloe evokes a process of healing a symbolic “colonial wound,” referring not only to people but also to animals and other plants. *Zabilar* puts a special emphasis on *becoming-with* plant, from its fluidity and tentacularity to its historic migration and propagation



*Zabilar. Gardening Light, Harvesting Sound, Forma Otwarta Oleśnica, 2023*



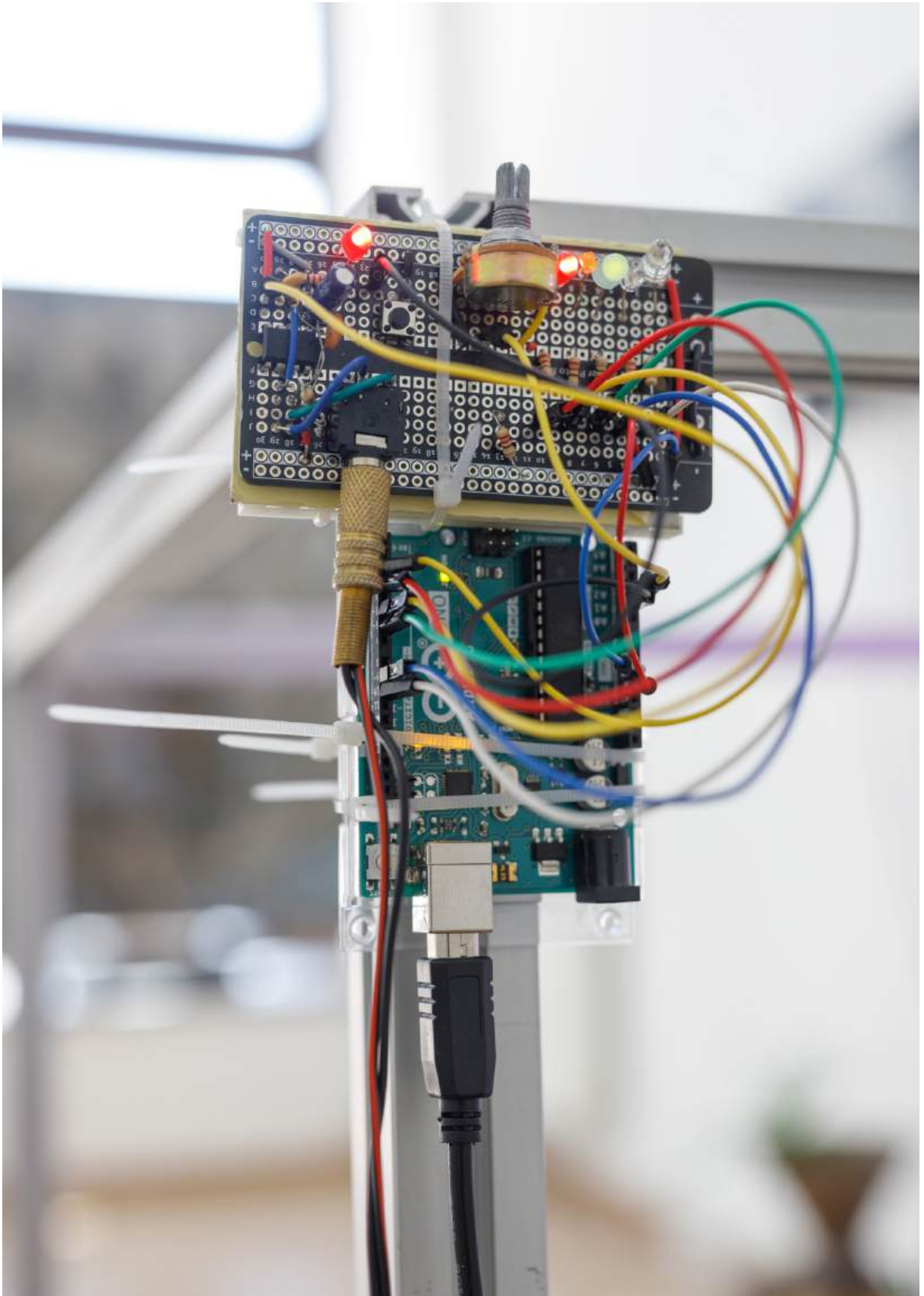
*Zabilar. Gardening Light, Harvesting Sound, Forma Otwarta Oleśnica, 2023*



Zabilar. *Gardening Light, Harvesting Sound*, Forma Otwarta Oleśnica, 2023

Zabilar proposes an installation as a network of bioelectric energy that is harvested from the Aloe culture through biofuel cells made of clay and transformed into generative sound by a sonification technique through sculpted objects: graphite clay planters and metal resonant plate. Aloe vera is able to generate low levels of bioelectric energy as a bypass of its photosynthesis process; therefore it can create a sustainable generative environment, producing enough electrical energy to turn on low-power consumption devices. Aloe's conductive properties enabled me to generate biodata and translate them into a sound composition. The plants were cultivated indoors in *Forma Otwarta* Oleśnica gallery space, for two weeks of July, 2023.





*Zabilar. Gardening Light, Harvesting Sound, Forma Otwarta Oleśnica, 2023*



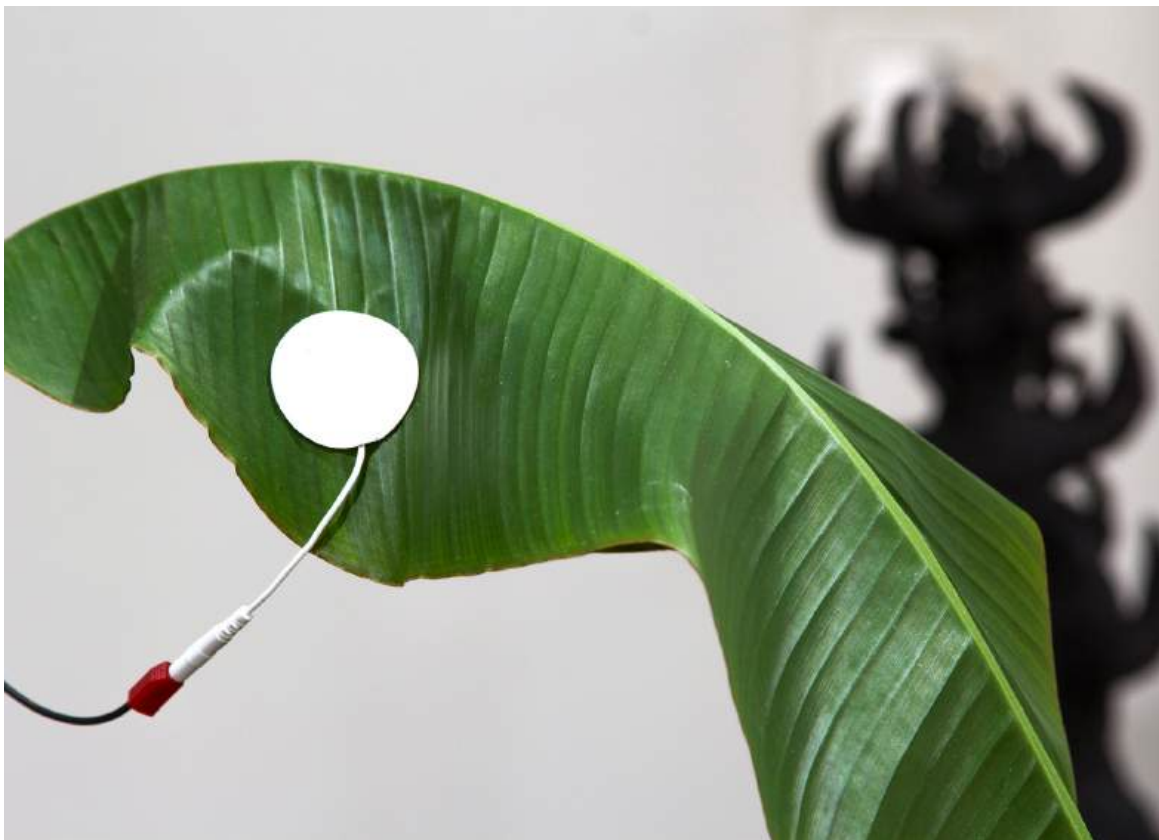
### 3.5. Anti-Matter Plantation and No Time of Cloning

*The Antimatter Plantation* project delves into the history of the plant *Musa Paradisiaca*. The installation takes the form of a diorama placed on top of a drawing made of a bed of brown soil. At the heart of the exhibit, a banana tree is ensconced inside a Black biomechanical clay capsule, constantly transmitting real-time data in the form of sound, and a generative dark matter represented visually. This capsule is encircled by a tentacular clay structure which serves as both, a protective barrier and a sensory organ, showcasing the remarkable process of growth. Recent studies have shown that potassium 40, a naturally occurring isotope, one of the three types of potassium that can be found in banana fruit, it produces radiation that creates antimatter. As potassium 40 decays, it occasionally spits out a positron in the process.

*Antimatter plantation* refers to the genealogies of the banana cloning process. Focusing on the plant *Musa Paradisiaca* rather than on the globally popularized fruit, the work refers to scalable monsters and atrocities of the Plantationocene epoch. The installation is visually capturing generative dark matter that evokes the mutant stories of cloning. A second tentacular clay structure emerges from the soil, acting as a companion and a sentient organ that demarcates a process of *becoming-with* other beings inside these mutant landscapes.

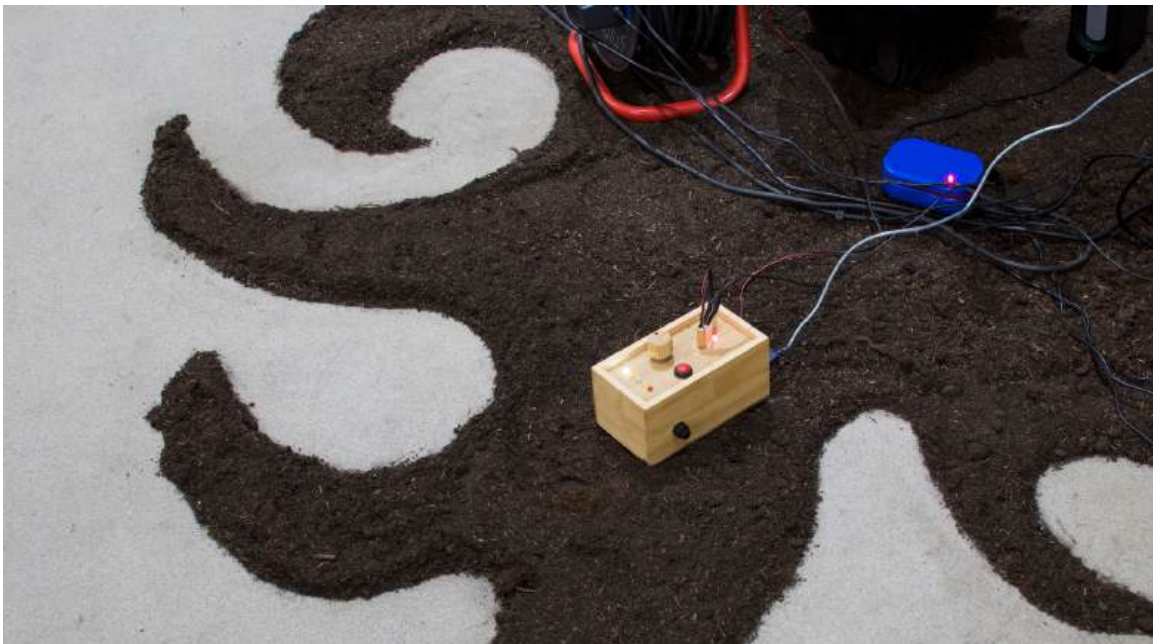
*Anti-Matter Plantation and No Time of Cloning* (2022), view from A World That is No Longer There exhibition, Ośrodek Dokumentacji Sztuki, Wrocław, photo: foto: Pablo Ramírez González.





*Anti-Matter Plantation and No Time of Cloning* (2022), view from *A World That is No Longer There* exhibition, Ośrodek Dokumentacji Sztuki, Wrocław, photo: foto: Pablo Ramírez González.

While assembling the exhibition I have compiled many solutions that refined my further actions and future works. As in my previous works, I used technology through a *cyber shamanic* framework in order to build a process of feedback, between generative audio and image. I have decided not to hide any of the electronic devices, including Arduino boards, computers, cables, sonification devices, speakers, and screens and the I have created a drawing from the soil on the floor of the gallery recalling and mesoamerican earth being.



*Anti-Matter Plantation and No Time of Cloning (2022), view from A World That is No Longer There*

Anna Tsing in her study of the Plantationocene argued that the principle behind the plantation is the logic of scalability. The project of the plantation relies on simplified ecologies that are prone to selecting specimens or processes in nature that are suitable for systematizing and therefore scalable into large dimensions to generate corporate profit while bringing at the same time devastating socio-ecological consequences. The plantations are described by anthropologist as simplified ecologies that threaten the livability of the planet in favor of increasing assets for future investment. The banana in such terms has become a milestone for the process of postnatural plant engineering that involves mutation, cloning, and genetic modification. As a symbolic territory the proposal represents a space of resistance and partial recuperation against the colonial and extractivist logic of the plantation.





Exhibition view, *Cybershamanicgarden*, Oronsko Triennale, 2023.

### **3.6. CYBERSHAMANIC GARDEN**

*Cybershamanic Garden* is a warped science-fiction plot that delves into the ancient Mesoamerican myth of Cipactli, an aquatic reptile from which the tree of life emerged, giving place, in this case, to a speculative ontologic space. It is composed of a series of plants in electroconductive vessels, aluminum structures, generative sounds and animated images, and a soil drawing of Cipactli. This ancient crocodile irrupts into the contemporary colonial narratives of botanics and plant collections in order to revitalize the relations among plants, ceramic beings, sounds, and videos as agentic presences that reject the objectifying view of science.

The genesis of the sacred tree from which the cosmos originated is a common ontology of Indigenous peoples in Mesoamerica. The sacred tree of Mayans was called the Ceiba, and it grew out from the jaws of the crocodile goddess Cipactli, helping to interconnect the Earth with the Sky. In the codexes, the tree takes many shapes, sometimes human-like, sometimes reflecting animals, gods, or spirits. The installation, like the sacred tree of Mayans, takes the shape of an entanglement.



Exhibition view, *Cybershamanic garden*, Oronsko Triennale, 2023, photo: Pablo Ramírez González.



During the month of June, I participated in the 10th Young Triennale: Consolidation in Orońsko curated by Lia Dostlieva and Stanisław Małecki where I presented the project *Cybershamanic Garden*. The exhibition was composed of 35 ceramic objects connected with a bio-data processor. Ceramic sculptures recall sacred vessels and sculptures of contemporary and ancient Mesoamerica and operate as ghostly presences of the colonial past and allies in a process of ongoing resistance. The dark silver color of the vessels invokes a haunted past while its electroconductive materials become a medium for conducting electricity. The exhibition took place at the Orangery building in the sculpture center, which favourably enables the additional dimension of dialoguing with the memories of the tropical plants to unfold. As a final search, the installation aims to explore decolonization of botanical practices through Mesoamerican entanglements.



Exhibition view, *Cybershamanic garden*, Oronsko Triennale, 2023, ph: Pablo Ramírez González.

The construction in the center of the installation is an interplay of different materialities, I got interested in the relations that these elements build with each other; some are more organic, and others less; some are made by humans, and some not, but they are all agents affecting and being affected by the factors such as weight, touch, proximity, etc. Electricity in itself is another factor, that travels as a *vollic impulse*, amplifying differences of voltages, redirecting biodata from the plants to the circuit boards, making

algorithmic shifts and coming back from the digital into the real space as sound. The *Cybershamanic Garden* builds a bio-electromagnetic field in which the sentient plants constantly intercommunicate and modify the fluid energy based on the perceptions from the world around them, simultaneously perceiving and co-building that world.



Exhibition view, *Cybershamanic garden*, Oronsko Triennale, 2023.

The project explores in depth the idea of *cyber shamanism* as a methodology in order to find communication and bond with plants. The sculptures help to transmit electric current from the plants connected by the electrodes through microcomputers, the signals (influenced by the spectator's biodata) are translated into the sensory experience. This project furthers my interest in speculative fiction and approaches plants as complex technologies. Follows the idea of the interspecies collaboration between the human and the more-than-human - our companion species that can teach us how to live and die on a damaged planet. Some of these sculptures are built with electroconductive properties, which allows them to transmit electrical signals between plants and their surrounding agents; other sculptures weave between different temporalities and storytellings.





Exhibition view, *Cybershamanic garden*, Oronsko Triennale, 2023.



Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.

### **3.6. Plantifictions**

*Plantifictions* is a speculative fabulation created at the junction of ancient Mesoamerican materialities and a contemporaneity haunted by the colonial past of the plants from the Global South. It is a practice of worldmaking based on an expanded concept of kinship, including non-human entities. The solo exhibition opens a space of reflection on possible scenarios for decolonial futures based on nonhierarchical interspecies relationships and communication between humans and more-than-humans. It's a space in which plants, ceramic artifacts, and technologies build post-natural entanglements in favor of alternative ways of narrating the past, the present, and the future.





Pablo Ramírez González, *Plantifictions*, Contemporary Museum Wrocław, 2023, photo: Małgorzata Kujda.

A modular audiovisual installation composed of ceramic sculptures and plants creates an experimental, immersive sound environment in the space of the Contemporary Museum in Wrocław. The plants from the Global South cultivated inside produce generative sound and animated visuals based on bio-data. The works were inspired by the ontologies of Mesoamerica as well as methodologies in which myth and science operate within the same cognitive framework. Referring to the colonial history of plants, the exhibition charts their socio-ecological background while evoking the ghosts and stories of slavery, cloning, genetic modification, land appropriation, and monocultures.



Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.



Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.





Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.



Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.



Exhibition view, *Plantifictions*, Contemporary Museum Wrocław, 2023, photos by Małgorzata Kujda.





*Zabilar*, exhibition view, Forma Otwarta Oleśnica, 2023, photos by Katerina Kouzmicheva



*Plantifictions* exhibition, photography: Ewa Szatybelko



## **IV. CONCLUSIONS**

This dissertation has contributed to the foundation of Mesoamerican materialisms - an ancient-futuristic term referring to Indigenous knowledges, relational ontologies, Epistemologies of the South and decolonial practices. The process of developing this framework has opened many paths of investigation within the context of contemporary philosophy leading to vast reflections and insights. What in the end has consolidated as Mesoamerican materialisms has been the outcome of my interdisciplinary artistic endeavours as well as theoretical findings in the areas that interests me the most as decoloniality, critical theory and philosophy of Mesoamerica.

The consolidation of the methodological framework for the above dissertation was both - art practice and theory based. My experience of making art manifested in hours spent in the studio, coming to conclusions mainly through "making" was accompanied by parallel conduction of theoretical investigation grounded in decolonial theory and contemporary philosophy of materialism. It was in fact a very prolific moment in my career, abundant in artworks production as well as in exhibitions. This "journey" has been deeply intertwined with my experience of making kin with the more-than-human beings besides the multilayer narrative of contemporary coloniality, sharing an unfamiliar land during a period of tumultuous social and ecological upheavals. The narratives that unfold during these three years wove together the realms of human and multispecies navigating through the turbulent and dystopian landscapes of contemporary anthropogenic climate change.

As an outcome of my research some technological findings such as electroconductive ceramics, biodata generative devices for sonification and image visualization came to fruition. This explorations have led me to consolidate the artistic body of work characterized by interconnected large-scale installations consisting of plants, biotechnologies, ceramic sculptures, electroconductive vessels, generative audiovisual works, synthesizers, and botanical drawings. They configure immersive spaces of experience that embody haunted landscapes of relation between the human and more-than-human.

I have built up a series of methodologies that have led me to the promising findings such as a decolonial take on technology through the use of the concept of cyber shamanism, which vastly manifested in my artistic practices by developing alternative paths of entangling with vital materialities. This has led to the production of electroconductive ceramic sculptures, the construction of synthesizers and experiments with generative sound and image.

These installations have simultaneously underpin diverse perspectives on botanics by creating alternate relationships with botanical realms such as personhood, kinship and collaborative interrelatedness in its co-creation within the works. Plants in my works offer alternative ways of sensing, relating to and co-becoming with human and more-than-human beings. As they render each other capable in horizontal relations, they might learn from each other ways to “live and die better on a damaged planet.”<sup>2</sup> Through this path, I develop ways of learning with and from plants seen as witnesses of human oppression, producers of memory, wound healers, caregivers, storytellers, sages and builders of more-than-human worlds. Moreover, the works created have appealed for expanded notions of materiality by using Mesoamerican frameworks that allow interplay storytelling, agency, and fluid perspectives on a subject matter to challenge previous objectual perspectives.

Finally, Mesoamerican materialisms has been a fruitful space for thinking about decolonial approaches toward nature. This has implied a much broader epistemic paradigm that has driven the reconfiguration of many of my initial questions while confronted with the bias inherent in most of the earlier assumptions, I have broadened the first spectrum grounded in the study of decolonial theory, new materialisms, and political ecology to start an active conversation with Indigenous and ecofeminist scholars, the ontologic turn, and critical perspectives on the ecologies of the Anthropocene, as well as the possible encounters and epistemic crossings between them. In this sense, my artistic practice has gone

<sup>2</sup> Tsing, A.L., *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, Economics Books, Princeton University Press, 2015..

through an unprecedented abundance in consolidating ideas that I was developing over the previous years around Mesoamerica, the dialog with the artistic practice from perspectives of Indigenous and peoples of color, and decolonial practices in art research.



## **BIBLIOGRAPHY:**

1. Belaunde, Luisa Elvira. *Diseños materiales e inmateriales: La Patrimonialización del Kené*, 2012.
2. Bennett, Jane, 1957- author. *Vibrant Matter : a Political Ecology of Things*. Durham :Duke University Press, 2010.
3. Bleichmar, Daniela. *El Imperio de lo Visible*, 2016.
4. Brown, Imani Jacqueline. *Black Ecologies: An Opening, an Offering*. *Environmental Humanities*, vol. 9, no. 1, 2017, pp. 247-258.
5. Cage, John. *A Mycological Foray: Variations on Mushrooms*. Something Else Press, 1972.
6. Cajete, G (2004), *Philosophy of Native Science, In Waters American Indian Thought*, Philosophical Essays,pp45-57
7. Cadena, Marisol de la. *Earth Beings: Ecologies of Practice across Andean Worlds*. Duke University Press, 2015.
8. Chacko, Xan Sarah. "Digging up Colonial Roots: The Less-Known Origins of the Millennium Seed Bank Partnership." *Environment and History*, vol. 25, no. 1, 2019, pp. 79-100.
9. Clarke, Adele E & Haraway, Donna Jeanne. *Making kin not population* / edited by Adele E. Clarke and Donna Haraway. 2018. Chicago : Prickly Paradigm Press
10. Cohen, Claire Colebrook and T. J. Demos (eds.). *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments, and Epistemologies*. Open Humanities Press, 2015.



11. Cusicanqui, Silvia Rivera. *Ch'ixinakax utxiwa: On Decolonising Practices and Discourses*. Ediciones Tinta Limón, 2010.
12. Curry, Alexander. "Oro verde, social change, and environmental destruction." *Environmental Conservation*, vol. 42, no. 3, 2015, pp. 245-255.
13. Demos, T.J. *Decolonizing Nature: Contemporary Art and the Politics of Ecology*. Sternberg Press, 2016.
14. Drayton, R. *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*. New Haven and London: Yale University Press, 2000.
15. Erickson, Megan, and Lucas Owen. "Blood Avocados: Cartel Violence Over Licit Industries in Mexico." *Journal of Political Economy*, vol. 126, no. 4, 2018, pp. 1472-1514.
16. Escobar A., *Thinking-feeling with the Earth: Territorial Struggles and the Ontological Dimension of the Epistemologies of the South.*, Rutledge, 2019.
17. Farías Ochoa, Alberto. "Displacement and Reparation and Resistance of Indigenous Purépecha Women Against Avocado Industry." Unpublished thesis, 2019.
18. Foster, Laura A. *Critical Perspectives on Plants, Race, and Colonialism: An Introduction*. *Environmental History*, vol. 22, no. 1, 2017, pp. 1-17.
19. Fuentes Díaz, Antonio, and Guillermo Paleta Pérez. "Violencia y autodefensas comunitarias en Michoacán, México." Instituto de Investigaciones Dr. José María Luis Mora, 2015.
20. González Romero O. S. , Tlamatiliztli, *La sabiduría del Pueblo Nahuatl*, Leiden University Press, 2021.

21. Haraway, Donna. *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press, 2016.
22. Horton, Jessica L., and Janet Catherine Berlo. "Beyond the mirror: Indigenous ecologies and 'new materialisms' in contemporary art." *Third Text*, 27.1 (2013).
23. Jackson, Sarah E. "FACING OBJECTS: AN INVESTIGATION OF NON-HUMAN PERSONHOOD IN CLASSIC MAYA CONTEXTS." *Ancient Mesoamerica*, 30, no. 1 (2019): 31–44. doi:10.1017/S0956536118000019.
24. Katz, Cand Kirby, *In the Nature of Things: The Environment of Everyday Life*, 1991, p.265.
25. Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*. Milkweed Editions, 2013.
26. Kibler, J. "Indigenous Knowledges and New Materialism: A Citation Analysis of Exclusion, 2022."
27. Kohn, Eduardo. *How Forests Think: Toward an Anthropology Beyond the Human*. University of California Press, 2013.
28. León-Portilla, Miguel. 1992. *Fifteen Poets of the Aztec World*. Norman: University of Oklahoma Press, 1992.
29. León-Portilla, Miguel. *Toltecayotl: Aspectos de la cultura nahuatl*. Instituto Nacional de Antropología e Historia, 2006.
30. López Austin, Alfredo. *Las Razones del Mito*. Siglo XXI Editores, 2000.
31. López Austin A., *Tamoanchan, Tlalocan: Places of Mist*, University Press of Colorado, 1997.
32. Lopez Austin, Alfredo, Lopez Lujan, Leonardo, *The Sacred Mountain, The Big Temple*, 2009.

33. López A., *Human Body and Ideology Concepts of the Ancient Nahuas*, 1988.
34. Martin, James W. *Banana Cowboys: The United Fruit Company and the Culture of Corporate Colonialism*. University Press of New England, 2001.
35. Mbembe, Achille. *Necropolitics*. Duke University Press, 2019.
36. McLeod, Alexis, *An Introduction to Mesoamerican Philosophy*, i-ii, Cambridge University Press, 2023.
37. McO'Brien, Amelia. *Accumulating Extinction: Planetary Catastrophism in the Necrocene*. University of Minnesota Press, 2021.
38. Mishack T. Gumbo, P. John Williams, *Indigenous Technology Knowledge Systems*, 2023, p. 85.
39. Merson, "Bio-prospecting." In *Nature and Empire*, edited by Mac Leod.
40. Murphy, R. *Rationality of Nature: a Sociological inquiry into a changing relationship*, 1994.
41. Ortiz de Montellano, B. (Bernard). *Aztec Medicine, Health, and Nutrition*. New Brunswick: Rutgers University Press, 1990.
42. Oliveros P., *Quantum Listening*, 2022.
43. Pratt, Marie Louise. *Imperial Eyes: Travel Writing and Transculturation*. Routledge, 1992.
44. Said, E., *Orientalism*, Vintage Books, London, 1978
45. Santos, Boaventura de Sousa. *Epistemologies of the South: Justice against Epistemicide*. Routledge, 2016.

46. Sheldrake, Merlin. *Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures*. Random House, 2020.
47. Shiva, Vandana. *Who Really Feeds the World?* Zed Books, 2016.
48. Smith, Linda Tuhiwai. *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books, 2012.
49. Stengers, Isabelle. *Cosmopolitics I*. University of Minnesota Press, 2010.
50. Tsing, Anna Lowenhaupt. 2017. *The Mushroom at the End of the World*. Princeton, NJ: Princeton University Press.
51. Tsing, A. L., Bubandt N., Gan E., Heather Anne Swanson, eds.. *Arts of Living on a Damaged Planet*, 2017 Minneapolis, MN: University of Minnesota Press
52. Xiang, Zairong. *Queer Ancient Ways: A Decolonial Exploration*. Santa Barbara, CA: Punctum Books, 2018
53. Yusoff, Kathryn. 2018. *A Billion Black Anthropocenes or None*. Forerunners: Ideas First. Minneapolis, MN: University of Minnesota Press.
- 

#### ONLINE REFERENCE ARTICLES:

1. Alimonda, H. (2019). *The Coloniality of Nature: An Approach to Latin American Political Ecology*. *Alternautas*, 6(1), 102-142.
2. Castro, T. *The Mediated Plant*. *E-flux Journal*, September 2019, <https://www.e-flux.com/journal/102/283819/the-mediated-plant/>

3. Davis J., Moulton A., Van Sant L., Williams B. *Anthropocene, Capitalocene, ... Plantationocene?: A Manifesto for Ecological Justice in an Age of Global Crises*. 2019, 9;13:e12438. <https://doi.org/10.1111/gec3.12438>.
4. Davies, C. *Spectres and phantoms*. *French Studies*, Volume 59, Issue 3, July 2005, Pages 373–379.
5. Escobar A, *On the Ontological Metrofitting of Cities*, e-flux Journal, 2022, <https://www.e-flux.com/architecture/where-is-here/453886/on-the-ontological-metrofitting-of-cities/>,
6. de Sousa Santos, Boaventura. *Beyond Abyssal Thinking: From Global Lines to Ecologies of Knowledges*. Review (Fernand Braudel Center), vol. 30, no. 1, 2007, pp. 45–89. Link.
7. Enrique Salmón. *Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship*. Source: *Ecological Applications*, Vol. 10, No. 5 (Oct., 2000), pp. 1327-1332. Link.
8. Gimmel, Millie. *Reading Medicine in the Codex de La Cruz Badiano*. *Journal of the History of Ideas* 69, no. 2 (2008).
9. Gray R., Sheiks S. *The coloniality of planting: legacies of racism and slavery in the practice of botany*. January 2021. (online: <https://www.architectural-review.com/essays/the-coloniality-of-planting>)
10. Kew Gardens. <https://www.kew.org/wakehurst/whats-at-wakehurst/millennium-seed-bank>
11. Li, Fay Wei. *Decolonizing Botanical Genomics*. Published: 3 December 2021. (online: <https://par.nsf.gov/servlets/purl/10308880>)
12. López Austin A., *Myth, Belief Narration Image: Reflections on Mesoamerican Mythology*. *Journal of the Southwest* 46, no. 4 (2004): 601–20.



13. Lutzoni, F., Nowak, M.D., Alfaro, M.E. et al. Contemporaneous radiations of fungi and plants linked to symbiosis. *Nat Commun* 9, 5451 (2018).
14. Mastnak T., Elyachar J., Boellstorff T., *Botanical decolonization: rethinking native plants. Environment and Planning D: Society and Space* 2014, 363-380, <https://journals.sagepub.com/doi/epdf/10.1068/d13006p>
15. Mbembe A., *Bodies as borders. From the European South* 4, (2019), 5-18.
16. Pavid, K., *Plant life on Earth is much older than we thought.* 2018. <https://www.nhm.ac.uk/discover/news/2018/february/plant-life-on-earth-is-much-older-than-we-thought.html>.
17. Quijano, Anibal, Michael Ennis. *Coloniality of Power, Eurocentrism, and Latin America.* *Nepantla: Views from South*, vol. 1 no. 3, 2000, p. 533-580.
18. Scientists are showing us a clear way ahead, *Time.* 2021. <https://this-is-my-earth.org/this-is-our-clear-way-ahead/>.
19. Terraforming, *Online Oxford English Dictionary* (2015) <http://www.ed.com/view/entry/240163?redirectedfrom=Terraform#eid1290389>.
20. Tompkins, K. W., *On the Limits and Promise of New Materialist Philosophy.* *Lateral* 5, no. 1 (2016).
21. Tsing, A., *A Threat to Holocene Resurgence is a Threat to Livability.* 2017. [https://monoskop.org/images/c/c4/Tsing\\_Anna\\_Lowenhaupt\\_2017\\_A\\_Threat\\_to\\_Holocene\\_Resurgence\\_Is\\_a\\_Threat\\_to\\_Livability.pdf](https://monoskop.org/images/c/c4/Tsing_Anna_Lowenhaupt_2017_A_Threat_to_Holocene_Resurgence_Is_a_Threat_to_Livability.pdf)
22. Tuhiwai Smith L., *Decolonizing Methodologies: Research and Indigenous Peoples.* London: Zed Books., 1999.
23. Hui, Yuk. "Cosmotechnics as Cosmopolitics - Journal #86 November 2017 - e-flux". e-flux.

**Pablo Ramírez González** (México, 1990)

Lives and works between Cuernavaca, México and Wrocław, Poland

Pablo is an interdisciplinary artist and researcher, working within the fields of installation, sculpture, intervention, and sound art. His practice focuses on exploring alter-worlds where science and myth intertwine to convey speculative fiction beyond contemporary coloniality, often leading him to create interventions, dioramas, sculptures, and immersive environments. His projects draw inspiration from Afro and Indigenous-Futurism as well as Mesoamerican cosmologies and their perspectives on the agency matter, the more-than-human, and technology. He is interested in Black and Indigenous Ecologies and the Epistemologies of the South as fields that can render radical imagination for invoking "other" possible futures. Speculative fiction in his work operates as a space-time methodology to "become-with" other species and confront coloniality on its different temporalities.



