

Second Sun: Echoes of the Digital Dream

by

Ludmila Lima De Moraes

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in Intermedia

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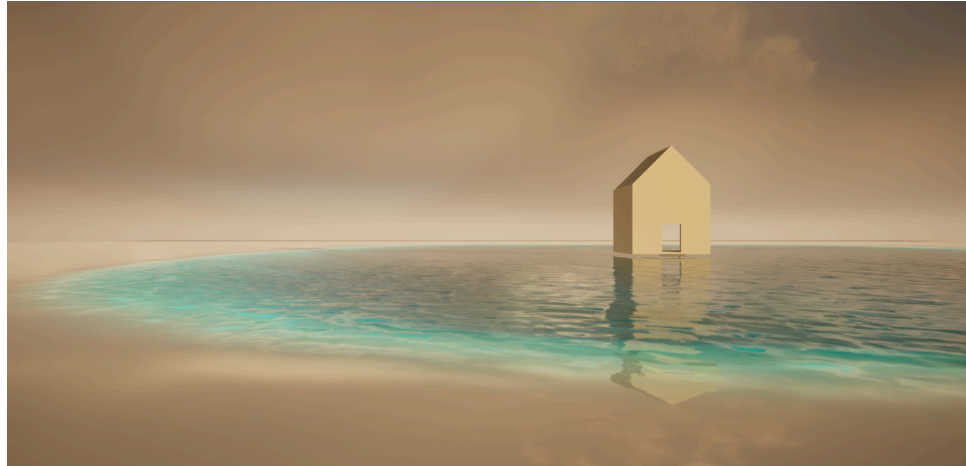
I'm about to sleep, my body feels heavy sinking into the bed, but my mind won't shut down. A swarm of thoughts floods my anxious mind: untenable commitments, fears of the future, shames of the past, exquisite loneliness, and a deep, deep longing for home. My exhausted mind suggests feverish connections and narratives, mixing up memories, movies, and sensations. I get caught in unescapable loops between how I perceive the world and how I imagine the world perceives me. I jump between my childhood dream of being by the sea and imagining a future home where one day I might feel safe and secure. I switch between an idyllic landscape filled with windows that sing with the wind and a void urban expanse of windows that open and close in response to my voice which calls for other humans. I am in a field of sunflowers that constantly follow me as if I were the sun. I sit before a plate of Brazilian guarana fruit, whose blinking eyes fix their expectant yet lazy stare upon me.

In my waking hours, I delve into the ethereal essence of these dreams using virtual reality technology powered by Unreal engine. This (more or less) open-access gaming platform enables the creation of virtual landscapes where the rules of reality are fluid, mimicking the surreal nature of dreams. Immersed in creating my virtual reality worlds, I feel the absence of physical touch, a tangible sensation. I need some of this Unreal world to be real, tangible. So I tinker with exporting some of the Unreal assets that populate my virtual dreams. I hold a 3D-printed shell and house to my ear. I train a robotic sunflower and plate of guarana fruit to recognize my face and follow me as I move around my studio.

In different cultures, dreams are seen as a very deep way to reach the human experience. Amerindian cultures put a lot of emphasis on the fact that dreams are things collectively shared and acted upon as a community's engagement with the wisdom of ancestors. They are used to move through fears, challenges, and unknowns: in them, there is guidance without linearity, which characterizes Western explanations. This circular and multilinear conception of dreams belongs in a worldview in which the past, present, and future intermingle, and ancestors and future generations coexist within a fluid temporal continuum.

My artwork draws from these varied perspectives, creating pieces that reflect the multi-dimensional nature of dreams. By integrating ancestral knowledge with contemporary digital experiences, my art seeks to engage with both timeless aspects of human existence and current technological influences. This thesis explores how these interpretations of dreams inform my creative process and how they are reflected in my artworks.

Resonar (Resound)



Morais_001 Resound 2024 virtual reality still N/A

During the COVID-19 lockdown, I found myself confined to my family home in Brasília. Previously, my home had primarily been a place for rest, with little time for connecting with my parents or the surrounding environment. However, as the lockdown confined me within these familiar walls, I rediscovered the intricacies of my home—its sounds, smells, and long-forgotten childhood treasures.

One such treasure was a large seashell. The shell was a souvenir from a trip my mother had been on before I was born. The shell had become for me a symbol of imaginative conversations with the sea and a connection to a distant, magical world of sea, shores and crashing waves. Growing up in Oscar Niemeyer’s landlocked pilot plane city of Brasília (figures 2 and 3), far from the sea and surrounded by red sands reminiscent of Mars, the ocean held a mysterious allure for me. Holding the shell to my ear and listening to the ‘sea’ as my mother had once told me to do, I conceived the idea of creating the other end of this imaginary conversation—a tiny house for the sea, exchanging the sounds of the sea with the sounds of my home in Brasília.

Science writer, Robert Matthews, explains that the sound you hear when you put a shell to your ear isn't inherently linked to the sea or the shell's marine origins. Rather, it arises from the shell's shape trapping air inside, causing vibrations at frequencies determined by size. This vibrating air creates a sound resembling waves on the shingle. When I first heard Matthew’s scientific explanation of how the sound of a shell is created, it was akin to the revelation of a magic trick. As someone who already viewed the sea as a virtual and imaginary realm, I refused to let a scientific explanation shatter my mother’s tale of the sea. What captivates me most is that you

can "hear" the sea at will, using your hands as the conduit. This ability to commune with the sea felt so romantic and only showed how much *saudade* (longing) I felt (and will no doubt always feel) for something that I couldn't contain, the concept of home and the sea.

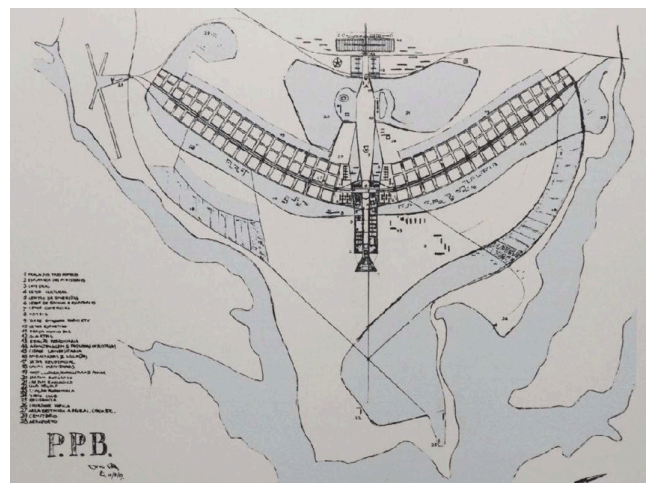
Resonar is an installation that reflects my journey and connection to my home and environment. Now, I find myself in Edmonton, a city surrounded by vast prairies, far removed from the tropical landscapes I grew up with in Brazil. Edmonton's landlocked nature echoes my earlier experiences in Brasília, creating a profound sense of distance from the ocean and familiar surroundings. This geographic separation amplifies my exploration of migration and transformation.

With *Resonar*, I use the metaphor of a mollusc changing its shell to symbolize my journey from Brazil to Canada—a journey marked by adaptation, growth, and new experiences. Just as a mollusc must find a new shell to accommodate its growing body, I have had to adapt to new environments and circumstances, leaving behind familiar comforts and embracing change. This process is not only about physical relocation but also about the emotional and psychological shifts that accompany such a transition. The mollusc's shell, which serves as both a home and protection, mirrors my own need to find a sense of belonging and security in new surroundings.

The installation *Resonar* is an artwork that integrates a virtual reality environment with two 3D-printed objects and life-size digital prints. In the virtual reality artwork, viewers encounter a miniature house that emits the sound of the sea and a shell that resonates with the sound of my house in Brasília during a rainy day, bridging digital and physical realms. Accompanied by two life-size digital prints exported from the virtual reality world, *Resonar* creates a sensory-rich experience that explores themes of memory, environment, and the intersection between virtual and tangible realities.



Morais_002 2019 photograph Brasília during drought season



Morais_003 Lucio Costa 2020 blueprint Brasília

Resonar virtual reality experience:

As you put on the VR headset, you are transported to a surreal sandy landscape where the sky and ground merge harmoniously. In the distance, a serene scene unfolds—a small lake with a solitary white house at its heart. The eerie silence of the surroundings compels you to move towards the house. As you approach, the distant sound of crashing waves becomes faintly audible. Stepping inside the house, your eyes are drawn to a large conch seashell. Initially, you assume the wave sound emanates from the shell, but to your surprise, it's the house itself that emits these captivating sounds. Intrigued, you reach for the shell, which transports you to an alternate fantastical realm. In this new setting, a colossal seashell looms before you amidst pink clouds and a setting sun, with the sea now visible on the horizon. The familiar sound of crashing waves accompanies you, creating a sense of continuity from the previous scene. Driven by curiosity, you decide to explore further. You encounter a path leading into the pearly, fleshy interior of the shell. Here, a symphony of sounds—cars, rain, birds—intermingles with a wireframe representation of a house. Touching the house triggers another shift, revealing a different landscape with a distant house in which there is another shell, which will transport you again. In this recursive exploration, you confront the theme of confinement and cyclical existence. Each iteration unveils a new scenario—a submerged house in the sea, an abandoned home in a Mars-like desert, a shell atop a windy hill obstructing a roadway. You realize the futility of escape as you're ensnared within the virtual Ouroboros of a temporary house and a shell from a distant shore. *Resonar* is a metaphor for my life as an international student, unable to settle or feel secure, always having to search for the next place to land.

3D Printed Conch and House

Interacting with the shell:

You reach for the shell, its cool, smooth surface fitting comfortably in your hands. As you lift it to your ear, a familiar yet distant sound begins to emerge—the soothing pattern of rain hitting the street, birds singing and cars passing by. This is the soundscape of my house in Brasília on a rainy day. The gentle rain evokes a sense of nostalgia and calm, transporting you to a place of introspection and serenity.

Interacting with the house:

Next, you approach the small white house. Its simple, unadorned structure invites you to investigate its surface. As you do, you notice a sound module embedded within. Activating it, you are greeted by the rhythmic and calming sound of ocean waves crashing gently against a shore. The sound fills the surrounding space, creating an enveloping atmosphere of tranquility.

The house, typically a symbol of stability and shelter, now becomes a portal to the expansive and ever-changing sea.



Morais_004 Resound 2022 3D printed shell 13 x 15 x 8.86 cm

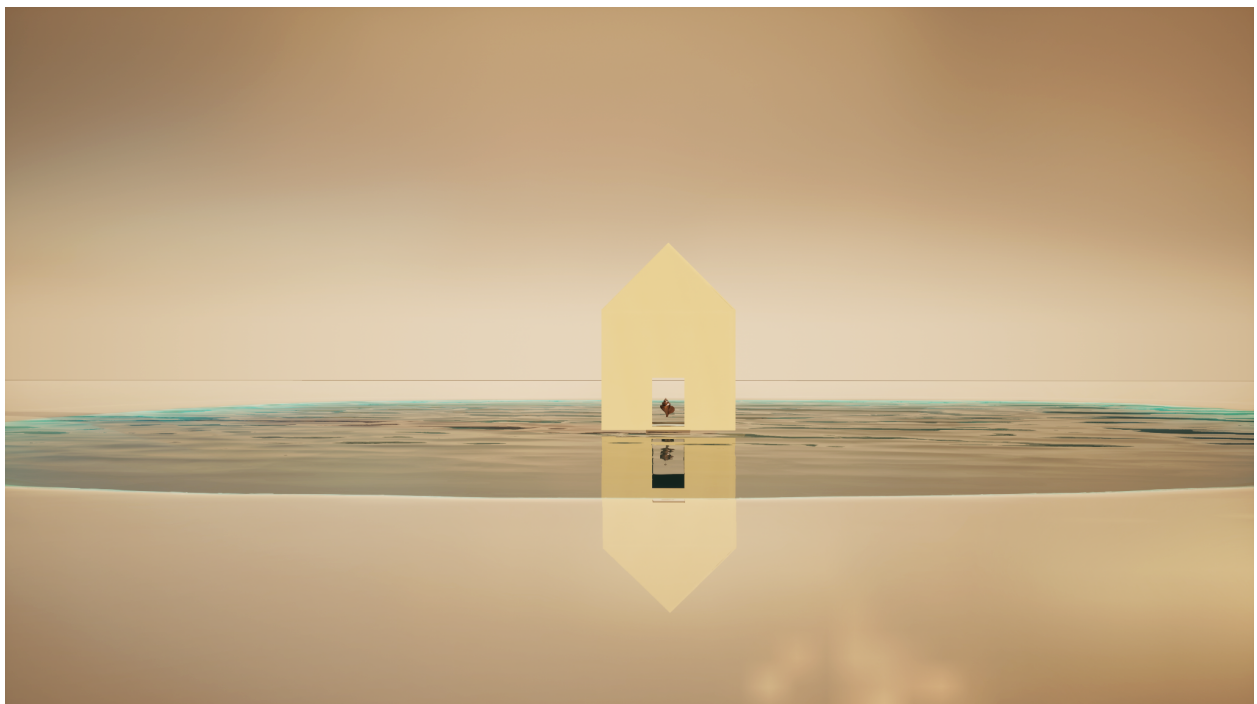


Morais_005 Resound 2022 3D printed house 15 x 10.8 x 13.7 cm

Large-scale prints

The Isolated House

The first print features a solitary house standing in the middle of a tranquil, shallow lake. The house is stark and simple, its clean lines and pale colour contrasting with the vibrant hues of the water. The sky above is a gradient of warm tones, suggesting either dawn or dusk. This scene evokes a sense of calm isolation, inviting viewers to imagine themselves in this otherworldly setting where the boundaries between land and water, reality and dream, are fluid and undefined.



Morais_006 Resound 2024 virtual reality game still

Vento Uivante (Wind Symphony)



Morais_007 Wind Symphony 2024 virtual reality still

As a child, the whistling sound of the wind outside my window would frighten me, conjuring memories of the spooky tales my grandmother told about spirits trying to communicate with the living through the wind. Maria Lucinda, my grandmother, was an incredible storyteller and horror movie aficionado. She would gather all the grandchildren at night and recount true stories of when she saw a spirit or when her grandfather had a prophetic dream. Sometimes, she would invent tales just to tease us.

One of her favourite stories involved a mysterious figure she saw in an old house near her childhood home. She claimed it was the spirit of a woman asking for directions, and after providing them, she watched the woman disappear around the corner. My grandmother always insisted that we should be wary of the spiritual world, but not resistant to it. She would also say that sometimes her loved ones who had passed away would visit her at night and talk to her through the wind, slamming doors and making objects fall. When the spirit was not friendly, she would pray and perform blessings with herbs.

Unsurprisingly as a child I was terrified of the wind, and would seek refuge in my parents' room on windy nights until the gusts subsided. Sensing my fear, and in an attempt to counter my grandmother's stories, my tired mother spun a soothing tale where the wind transformed into a friendly character named *Vento Uivante* (Whistling Wind), known for his gentle manners and love for singing. My mother's tale transformed the wind at night from a source of fear to a beautiful melody and still now I find myself searching for the wind (of which, like the sea, we have very little in Edmonton).

John Cage's observation that "wherever we are, what we hear is mostly noise", in *The Future of Music: Credo* (1961) highlights the omnipresence of sounds in our environment, ranging from natural sounds to human-made noises. This encompasses everything from the rustling of leaves to the hum of traffic, which contributes to the diversity of daily life. However, constantly using headphones and immersing oneself in formal music can create a barrier that isolates individuals from these everyday sounds. When ignored, as Cage notes, these noises can disturb us, but when actively listened to, they become intriguing and informative about our surroundings. The IFPI (International Federation of the Phonographic Industry), 2023, study findings that people spend listening to music each week listening to, on average, 20.7 hours. By focusing primarily on formal music through headphones or digital platforms, individuals may unintentionally tune out the nuanced sounds of daily life, missing out on the richness and diversity of their surroundings. This can lead to a more limited auditory experience and a disconnection from the natural rhythms and sounds outside curated playlists. This was my experience during part of my undergraduate program, but one day in 2018, I forgot my phone and was forced to actively listen to my surroundings to entertain my boredom while commuting.

I began capturing the ambient sounds around me, leading to an ongoing creation of a sound library for my artworks. Wind whistles play a significant role in this collection. Trying to reinterpret my mother's tale and my childhood memory, I again created a game using Unreal Engine where users play with my wind recording and virtual windows like a musical instrument, crafting their unique wind symphony. In my MFA exhibition, I present this virtual reality artwork alongside a video installation of my window in Brasilia where I spent many nights listening to the wind and a large-scale print from the VR experience.

Wind Symphony VR user experience

When you don the headset, you awaken amidst a vibrant field of wildflowers. Windows float wallless against the warm purple-orange hues of the dawn sky. You can approach the windows and open them. The wider you open the window, the stronger the sound of wind coming from the window. With each window's opening, the wind gains strength, harmonizing and mingling with the soundscape. One window leads you to a new virtual realm. Stepping through the window portal, you find yourself in a space that contrasts starkly with the wildflower meadow of windows. Now you are in a colourless, foggy night devoid of nature, replaced by an eerie cityscape of floating windows and dimly lit light poles. Your movements trigger responses from these lights, adding a dynamic layer to the scene. The windows in this scene remain stubbornly shut, emitting a frustrated noise echoed by the wind's response. You speak and it dawns on you that you've become intertwined with the elements, your actions shaping the environment and its soundscape. Your voice becomes the wind, and each window becomes a conduit for your

presence, echoing your rhythm and movements. Again, one of the windows is a chance portal—a passage that leads you back to the initial wildflower-filled setting.

Video installation

The video installation captures a haunting and evocative scene where a projection of a rainy day in Brasília is cast onto sheer black curtains. This setup creates an ethereal and immersive atmosphere, as the imagery of the city under the rain merges with the delicate movement of the curtains. The video features the sound of howling wind, enhancing the sense of being in the midst of a storm.

In the projection, viewers can see the rain coming and passing through the city, a dynamic and transient view that underscores the theme of impermanence and change. The curtains serve as both a screen and a veil, partially obscuring and filtering the images, much like memories or distant recollections. This adds a layer of introspection, inviting viewers to contemplate the interplay between nature and urban life, the passage of time, and the ephemeral nature of human experiences.

The installation aligns with the themes explored in *Wind Symphony* where the wind's invisible presence is made manifest through sound and movement. The howling wind and the visual representation of rain create a multisensory experience that blurs the boundaries between the physical and the metaphorical, echoing the idea of the wind carrying stories, memories, and emotions through space and time. This installation invites viewers to immerse themselves in the fleeting yet profound moments captured by the interplay of wind, rain, and the urban landscape of Brasília.



Morais_008 Wind Symphony 2024 video projection installation

Large format print

A high-resolution image from *Wind Symphony*'s first scene depicts a surreal and serene landscape that aligns with the themes of my *Wind Symphony* work. The scene features a lush, green field filled with various grasses and flowers swaying gently, evoking the sense of a soft breeze. Scattered throughout the landscape are floating window frames, standing upright and creating an intriguing juxtaposition of natural and artificial elements. The background setting of a rising sun casts a warm glow, enhancing the dreamlike quality of the scene.

Segundo Sol (Second Sun)



Morais_009 Second Sun 2024 video feed from robotic sunflower



Morais_010 Second Sun 2024 video still

I can't recall the exact moment when *Second Sun* first emerged in my dreams, but I do remember that it was a day when the news was filled with reports of widespread wildfires. The images of burning forests and ravaged landscapes weighed heavily on my mind. I found myself contemplating how nature might one day hold humanity accountable for the damage we've caused through climate change. I remember imagining myself surrounded by a sprawling garden of sunflowers, their bright faces all turned toward me. As I moved through the garden, each flower seemed to follow me, tracking my every step with an unsettling precision. The sunflowers felt like a collective, futuristic entity—almost as if they were connected by an unseen intelligence. There was a sense that they were trying to communicate something profound, something that left me feeling both curious and deeply uneasy. This daydream lingered with me, its imagery powerful and haunting, eventually inspiring the creation of *Second Sun*.

Robotic Sunflower

Second Sun is a robotic sunflower version that follows its human viewer instead of the sun. Its botanical anatomy comprises a Raspberry Pi 4, two servo motors, a USB camera, and an OpenCV face tracking code. The Raspberry Pi 4 is a small computer that provides the brain for the robotic sunflower. The servo motors control the movement of the sunflower, allowing it to turn and tilt in response to the viewer's movement. The USB camera captures the viewer's face, and the OpenCV face tracking code analyzes the video feed to determine the viewer's position in space. The code then sends commands to the servo motors to adjust the position of the sunflower accordingly.

In considering *Second Sun*, I wonder if my robotic sunflower shares fiction author Kazuo Ishiguro's Kazuo surrogate child robot Klara's wonder and faith in humans. In turn, this contemplation leads me to question humans' potentially blinding faith in technology. 'New Dark Age.' James Bridle insightfully notes how relying on automated responses, rooted in trust in machines, can lead to unforeseen consequences:

"The computer was simply asked a question, and it answered – and humans followed that answer to their deaths" (Bridle, Pg. 40, New Dark Age).

Bridle also highlights the cognitive biases that bolster our trust in automated responses, seeing them as inherently more reliable than non-automated ones. This faith in the machine's infallibility, as Bridle emphasizes, can profoundly shape our decisions and actions (Bridle, Pg. 38)

Technology is not a standalone entity but rather a manifestation of human beliefs and desires. Technology emerges from a complex tapestry of ideas, fantasies, and cultural influences passed down through generations. This insight resonates with *Second Sun*, where the robotic sunflower's

existence and functionality are not arbitrary, but reflect a specific worldview and set of intentions embedded within its design (which is that humans are the centre of the universe and must be followed as a sunflower follows the sun). It challenges the idea of a clear separation between technology and the world. The robotic sunflower embodies a fusion of nature (the sunflower) and technology (facial recognition and robotics). This fusion suggests that technology is not separate from the natural world but rather intertwined with it, echoing Bridle's argument that technology emerges from a complex web of beliefs, desires, and cultural influences.

Segundo Sol rendered animation

A field of sunflowers stands in a space devoid of natural sunlight or outdoor views. The sunflowers appear vibrant but grow without soil, standing only on the cold gallery floor, lacking the sun's warmth to guide their growth and movements. As you watch the video, a sense of being observed looms upon you. Initially, you assume the sunflowers, being part of a projection, face uniformly forward, but that's not the case. As you move, you realize the projected sunflowers track your every step, their gaze unwavering—a living presence. Does being the focus of nature feel gratifying? Does it stir our human-centric urge to control our surroundings? What's it like to wield this influence?

Second Sun emerges from reflection on these dynamics, stemming from my recognition of personal hubris and shortcomings. I'm fascinated by how humans interpret nature and technology. The sunflower's cheerful image embodies nature's beauty and resilience, while its ability to track viewers via facial recognition technology underscores our desire for centrality in the natural order. Through this project, I explore the intricate human-nature interplay, our accountability for technological interventions like facial recognition and immigration surveillance, and the ramifications of our environmental impact.

Guaraná



Morais_011 Guaraná fruit



Morais_012 Guaraná 2024 video still

Midway through my MFA course and reflecting on the themes of my work, I realized that I had no artwork directly representing my Brazilian heritage or culture in my projects. Guaraná, a plant with deep roots in Brazilian lore and a rich history of cultural significance, felt like the perfect medium to incorporate these elements. Its symbolism of resilience and connection to nature resonates deeply with my artistic vision. By working with guaraná, I aim to honour my heritage and keep exploring the intricate relationships between humanity, technology, and the natural world.

In Brazilian folklore, the guaraná plant has a rich origin story deeply rooted in the Amazon region. According to legend, the guaraná plant originated from the eyes of a young boy named Maue, a nature lover, who was tragically killed by a serpent while collecting fruits in the forest. His parents had prayed to the deity Tupã for a child, and their wish was granted with Maue, a boy cherished by the tribe. However, the jealous deity Jurupari, disguised as a snake, took Maue's life. In response, Tupã instructed the grieving tribe to plant the boy's eyes into the

ground, which gave birth to the guaraná plant. The fruits of this plant, with their black seeds encased in a white pulp, resemble human eyes, symbolizing Maue's enduring spirit.

Guaraná is celebrated for its vitality-boosting properties, attributed to its high caffeine content. Indigenous communities, particularly the Sateré-Mawé, have used it for centuries to enhance endurance and focus. The plant holds ceremonial significance and is believed to offer protection and fortune, weaving its way into various cultural rituals and practices.

Envisioning oneself as the eyes within the guaraná prompts profound introspection. It invites contemplation on the perspective of nature, exploring themes of symbiosis, observation, and reciprocal interaction. The essence of Maue's experience and the gaze of nature offer insights into interconnectedness and the interplay between humanity and the natural world.

In translating these themes into art, the concept manifests in two projects: A robotic guaraná fruit with animated "eyes" that respond to interaction (still in progress), symbolizing the fusion of human and natural elements, and 3D rendered animation of the guaraná fruit blinking and moving like human eyes, the fruits are placed with a shiny stone green leaf on a silver plate with Iris engraving. The plate is on top of a wood table with a white cotton cloth.

Guaraná rendered animation

In a dimly lit room, the air is thick with a sense of mystery. In the center of the space stands an old wooden table, its surface draped with a cotton tablecloth that seems to have softened with age. The fabric has a certain warmth to it, as if it holds the memories of countless gatherings. But your attention is quickly drawn to what rests on the table.

There, on a gleaming silver plate, intricately engraved with the delicate image of an iris, lies a branch filled with bright red berries. At first glance, they appear ordinary, but as you step closer, something strange happens—the berries blink at you. Each one, round and plump, opens and closes like a tiny red eyelid, revealing seeds that move within them like curious eyes, shifting lazily as if they're searching apathetically for something. The fruit seems alive, not just in the way all living things are, but with a consciousness, a sense of awareness that is both unsettling and mesmerizing.

Conclusion

In my work, I integrate various cultural and theoretical perspectives on dreams, creating a visual and experiential form that reflects different ways of understanding the human experience. Dreams, across cultures and theories, transcend the boundaries of time and reality, serving as a bridge to deeper explorations of our existence.

My artwork draws from the Amerindian view, where dreams are shared collective experiences, offering guidance through life's challenges. This perspective, with its emphasis on a non-linear understanding of time, aligns with the themes I explore in my pieces—where the past, present, and future coexist, allowing ancestral voices and future possibilities to inform one another.

Sigmund Freud's interpretation of dreams, which focuses on the individual's unconscious and repressed desires, also plays a role in my work. While Freud's approach contrasts with the communal focus of Amerindian traditions, both offer unique insights into different aspects of human experience—one looking inward, the other outward into the collective.

In today's digital culture, as described by media theorist Lev Manovich, the distinction between these temporalities becomes increasingly blurred. My work reflects this by incorporating elements of new media, disrupting traditional narratives and blending the real with the virtual. This approach mirrors the Surrealist movement, which sought to unlock the unconscious and embrace the illogical through dream imagery.

Through my artwork, these diverse interpretations of dreams—whether as ancestral wisdom, personal symbolism, or digital multiplicity—try to come together and make me feel home.

Acknowledgments/ Dedication

First, I would like to acknowledge and express my heartfelt gratitude to the reason behind my *saudade*. I could not have reached this point without the sacrifices made by my parents, Paulo and Adma. I am and will forever be deeply grateful for their unwavering support. I also want to thank my brother Rafael, who has always encouraged me despite the challenges we've faced. I am immensely grateful to my grandmother, Maria Lucinda, for all the stories and imagination that she and my mother cultivated in me.

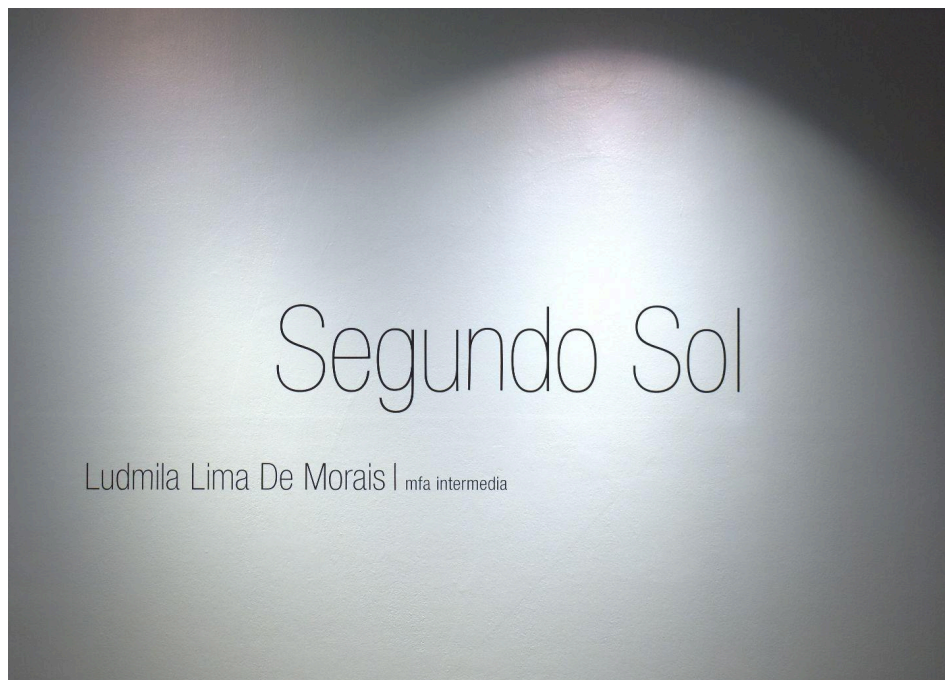
A special thanks goes to the love of my life, Felipe Fontinele Nunes. Felipe has been my unwavering pillar of strength throughout this journey. He has stood by me in moments of doubt, celebrated every achievement, and always believed in the power of my ideas—no matter how ambitious or unconventional they seemed. His faith in me and his constant encouragement gave me the courage to pursue my dreams, even when the path felt uncertain. Felipe's unwavering presence, from the late nights of brainstorming to the early mornings of creating, has been a gift I cherish deeply. I am endlessly grateful to have a partner who shares in my dreams and lifts me up every step of the way.

I feel lucky to have amazing friends who, even from afar, were always there for me: Vitoria, Tammy, Cecilia, Lorena, Mariana, João Valeriano, João Augusto, Paulo Moisés, Ranier, Vitor, Tábata, Igor, Débora, Pedro, and all my friends from the '*lata de lixo*' group.

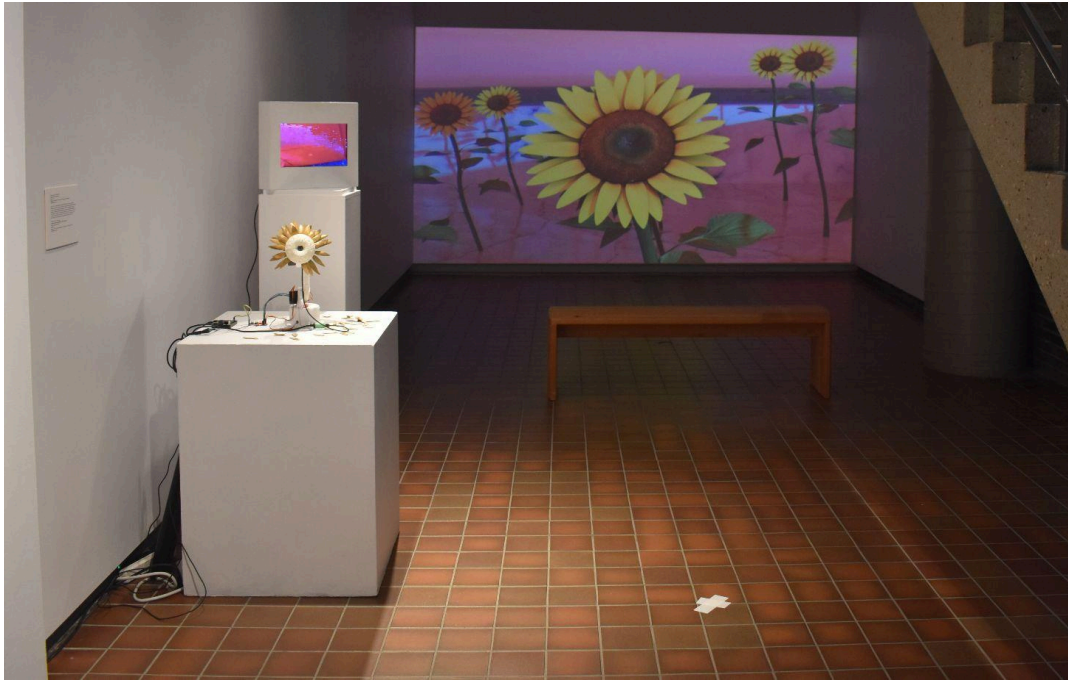
I would also like to thank the University of Alberta for welcoming me. My dear supervisor, Marilene Oliver, constantly lifted my spirits and helped me believe in myself. My co-supervisor, Scott Smallwood, offered invaluable feedback and engaging conversations that guided me through this journey. My heartfelt gratitude goes to my friends, Eunna Oh and Darcy Macdonald—this master's program would not have been the same without them. A special thanks to the great instructors I had the honor to TA for, Tammy Salz and Royden Mills, from whom I learned so much.

I dedicate this work to my child self: look how far we've come, see how far we go

Segundo Sol, MFA Thesis Exhibition FAB Gallery (September 3 - 21, 2024):



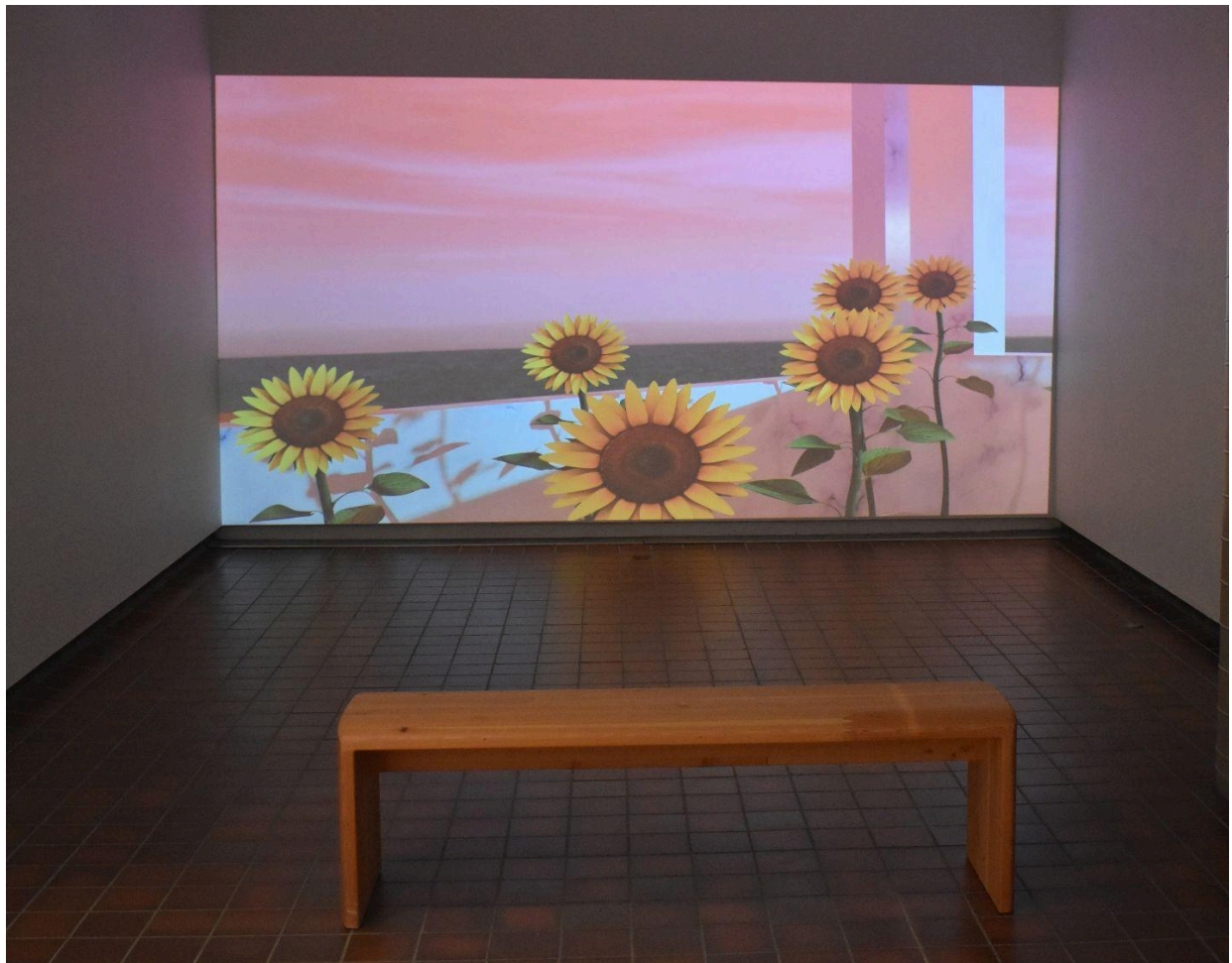
Morais_013 2024 FAB Gallery title wall



Morais_014 **Second Sun**, 2024, robot and projection gallery installation



Morais_015: **Second Sun**, 2024, Robotic sunflower dimensions variable



Morais_16: **Second Sun**, 2024, 3D render video projection



Morais_017 **Second Sun**, 2024, 3D render [video](#) still



Morais_018 **Resound**, 2024, Virtual Reality set up and sound sculptures gallery installation



Morais_019 **Resound**, 2024, house 3D printed sound sculpture, 15cmx10.8x13.7



Morais_020 **Ressound**, 2024, shell 3D printed sound sculpture, 13cmx15x8.86



Morais_021 **Resound**, 2024, Still from Virtual reality game



Morais_022 **Wind Symphony**, 2024, digital print and sound installation



Morais_023 **Wind Symphony**, 2024, Virtual Reality set up



Morais_024 **Wind Symphony**, 2024, Sound Installation 2,3m x 2m. Video: <https://vimeo.com/1012461047>



Morais_025 **Wind Symphony**, 2024, Digital print 71.1 x 40 inches Video: <https://vimeo.com/1012564636?>



Morais_026 Guaraná,2024, projection



Morais_027 Still from Guarana's 3D animation artwork Video: <https://vimeo.com/1012263Morais409>

Bibliography

Bridle, J. (2018). *New Dark Age: Technology and the End of the Future*. Verso.

Ishiguro, K. (2021). *Klara and the Sun*. Knopf.

Matthews, R. (Date not specified). Why does the inside of a shell sound like the sea? *Science Focus*. Retrieved from <https://www.sciencefocus.com/the-human-body/why-does-the-inside-of-a-shell-sound-like-the-sea>

Mullaney, T. S., Peters, B., Hicks, M., & Philip, K. (2021). *Your Computer Is on Fire*. The MIT Press.

Cage, J. (1961). *Silence: Lectures and Writings*. Wesleyan University Press.

Cage, J. (1961). The future of music: Credo. In *Silence* (p. 3). Wesleyan University Press.

IFPI. (2023). IFPI's Global Study Finds We're Listening to More Music in More Ways Than Ever. Retrieved from <https://www.ifpi.org/ifpis-global-study-finds-were-listening-to-more-music-in-more-ways-than-ever/>

Goethe-Institut. (n.d.). **A estrada dos sonhos é quase sempre circular e multilinear**. Retrieved May 22, 2024, from <https://www.goethe.de/prj/hum/pt/dos/tra/22353299.html>

Manovich, Lev. *The Language of New Media*. MIT Press, 2001.

Manovich, Lev. "The Aesthetics of Virtual Worlds." *Immersence*, 2001. [Link](#)

Freud, Sigmund. *The Interpretation of Dreams*. Avon, 1980

Figure 2: Globo. 2019. "Sem Chuva Há 110 Dias, Brasília Tem a Temperatura Mais Alta do Ano: 43°C." *G1*, September 21, 2019. <https://g1.globo.com/jornal-nacional/noticia/2019/09/21/sem-chuva-ha-110-dias-brasilia-tem-a-temperatura-mais-alta-do-ano-43c.ghtml>.

Figure 3: Costa, Lúcio. *Blueprint of Brasília*. IPHAN - Instituto do Patrimônio Histórico e Artístico Nacional. ResearchGate. Accessed September 2, 2024. https://www.researchgate.net/figure/Blueprint-of-Brasilia-drawn-by-planner-Lucio-Costa-Source-IPHAN-Instituto-do_fig1_344336631.

Figure 10: Mundo Educação. "Guaraná." UOL Educação. Accessed September 2, 2024. <https://mundoeducacao.uol.com.br/biologia/guarana.htm>.

Artist website: ludmilalima.com