

Artful Minds, Healing, and Well-Being

Women, Art, Science, and Technology in Latin America, 1970s to the Present

ABSTRACT

Conceived as part of a broader recovery of histories of Latin American women working with science and technology, “Artful Minds, Healing and Well-Being: Women, Art, Science, and Technology in Latin America 1970s to the Present” includes a selection of projects that share *Leonardo’s* focus on topics related to health. Ten artists from five Latin American countries (Mexico, Brazil, Colombia, Argentina, and Chile) represent a sampling of relevant practitioners. The works span fifty years, from the 1970s to the present, and involve various fields and technologies, from sonic, video, computational, and AI arts, to medical technologies and bioart, to technologically aided installations and performances. Created in various formats as solo-authored, collaborative, and participatory works, these projects include diverse physical and virtual environments, from artistic, domestic, scientific, and electronic spaces to urban and rural areas in Latin America and Europe.

Considering the diversity of forms and concepts, this showcase addresses these works’ shared critical and speculative orientations. The authors therefore foreground these projects as critiques of Eurocentric notions of art, science, and technology and as speculations into entwining these domains otherwise. Addressing this concern, the artists catalyze and recover traditionally marginalized historical and ongoing practices, knowledge systems, spiritualities, perspectives, and struggles. This focus aligns with calls for “cognitive justice,” which feminist, Indigenous, and Global South–based scholars have mobilized to counter the dominant monocentric lens of scientific knowledge to propose a shift towards an understanding of the world from a plurality of knowledges [1]. Discussions of selected works, followed by artists’ statements and photographic documentation, highlight the significance of this shift to this issue on healing and well-being and to *Leonardo* overall, as a journal interested in crossing the boundaries separating arts and sciences.

HEALING AND WELL-BEING: GEOLOGY

Tsinamekuta (2016–2021) by Marcela Armas (b. 1976, Mexico) (Figs 1–3) is titled after a Wixárika word that means “The House of Rain,” a ceremonial center in Wirikuta, a mountain in the Potosino plateau of Mexico [2]. The Wixárika peoples have made pilgrimages yearly to Wirikuta for over 10,000 years. The desert landscape became a mining area under Spanish rule, and today Wixárika pilgrims must obtain permission from the mayor of Villa de la Paz and the owners of the copper mine located in Wirikuta. Access will likely become more restricted due to the Mexican govern-

ment granting the Canadian mining company First Majestic Silver permission to extract silver, which is against the law in covenants protecting Wirikuta as a UNESCO Sacred Site.

The *Tsinamekuta* project includes an accordion programmed to play open compositions based on the magnetic field readings from pyrrhotite, a ferrous oxide found in local mines. The activation of this instrument involved a ceremony during the yearly pilgrimage. Starting with the artist’s query for permission to record and transfer electrical signals from human hearts (Armas’s and that of Mara’akame Jaixa, a member of the Wixárika community) to the surface of a pyrrhotite rock through an induction process, the offering ended with returning the rock to the interior of the mountain. Armas claims that *Tsinamekuta* resonates with the focus of her practice on *cuido* (meaning care), a term used by the Wixárika to describe their relationship with Wirikuta [3].

Máquinas de lo Invisible (*Machines of the Invisible*, 2017–19) (Figs 4–6) by Gabriela Munguía (b. 1985, Mexico) also takes form as sonic instruments that are specifically created to resonate with landforms [4]. To date, it includes, among others, *Sonidos al Viento* (Sounds to the Wind) in Altamira, Brazil; *Conversaciones geomórfológicas* (*Geomorphological Conversations*) in the Swiss Alps; and *Resonancia de partículas del tiempo* (*Resonance of Time Particles*) in Argentinian Patagonia.

According to Munguía, the work draws on terrestrial acupuncture, a practice that combines and extends Asian and Native American healing techniques to the earth. The artist extends this practice further by conceiving *Máquinas de lo Invisible* as DIY technologies and amplifiers of geomorphological, meteorological, and telluric data designed to enhance human attunement to “earthbeings.” The latter, anthropologist Marisol de la Cadena’s term for landforms, denotes ways of being and relating with the natural world that contrast with the ocularcentricism of dominant viewpoints of science and culture, which, in privileging sight, neglects other senses and means of understanding the world [5]. *Máquinas de lo Invisible* circumvents this bias, attuning instead to invisible nonhuman actants. Counter to the geology of techno-driven Anthropocene discourses—what geographer Kathryn Yusoff calls a continuation of geology of empire (geology organized by practices of extraction)—Munguía combines geology and technology to facilitate interspecies aurality [6].

Empatía 5.1/Technoshamanic Ritual for Specific Site (2019) (Figs 7–9) by Minerva Trejo (b. 1968, Mexico) is likewise site-specific, set at the Center for Digital Culture in Mexico City [7]. The work honors the center’s founder (feminist video artist Grace Quintanilla, 1967–2019) with a real-time performance that combines dance, ritual, light, and sound compositions featuring audiences’ heartbeats and gamma ray and gravitational wave data taken from NASA’s website.

Empatía 5.1 recalls Lydia Clark’s *Corpo Collectivo* (*Collective Body*, 1970s), a set of propositions involving participatory actions and, in hindsight, a predecessor to technoshamanism [8]. As proposed by psychologist and artist Fabiane Borges, technoshamanism views the Christian suppression of ancestral knowledge in Europe and its colonies as an act to bring science and technology to heel for capitalism, and thus calls for democratizing access to science and technology to invigorate more democratic “modes of existence and of relation to the Earth and the Cosmos” [9]. *Empatía 5.1* and Quintanilla’s conception of the center echo this same call.

HEALING AND WELL-BEING: ZOOLOGY/BIOLOGY

Shifting focus to animal attunements, *Cabe los pájaros* (*By the Birds*, 2020–present) (Figs 10–12) is an ongoing collaboration between María Antonia González Valerio (b. 1977, Mexico) and Lena Ortega Atristain (a.k.a. Leena Lee, b. 1977, Mexico) [10]. As a project of the Art+Science interdisciplinary research group of the National Autonomous University of Mexico, it combines González’s interests in animal studies and Ortega’s focus on sound ecology to tend to interspecies relationships in various forms, including collective drifts, meditations, recordings, concerts, and collaborations with invited artists.

Focused on listening to birdsong in natural habitats in Mexico, the work echoes a feminist approach to acoustic ecology as evident from the title’s oblique reference to Rachel Carson’s *Silent Spring* (1962). As a play on words, *Cabe los pájaros* (which can be also translated as “fit for the birds”) evokes bird puns to emphasize how soundscapes are shaped by multiple forms of oppression (for example, the word “chick” as dismissive slang for “woman,” and the expression “that’s for the birds,” meaning something that is not to be taken seriously) [11]. In *Cabe los pájaros*, birds of a feather flock together to play in counterpoint to gendered histories intersecting music and science.

The “Bichi Project” by Pat Badani (b. 1951, Argentina) is a series of works studying natural processes and the effect of human intervention on ecosystems. Also alluding to multispecies assemblages, *Bichicu-Chow* (2019) (Figs 13–14, Color Image B) is a 3D computer animation nested in the series [12]. A fantastic critter results from combining images of *Incu-Bichu* and *Comestible: Detox*, images of molds and glitching patterns of industrial foodstuffs deployed in a tactical social media intervention, respectively [13]. They involved cultivating and transfiguring food, mold, and fungi and creating odd and unpredictable algorithmic occurrences highlighting mutual dependence between biological, human, and electronic networks [14].

It is the text that literally brings *Bichicu-Chow* to life; more precisely, it is re-coded data from reassembled literature about the role of women in discourse about food production, distribution, and consumption. With a nod to the *wunderkammer*,

or cabinet of curiosities, Badani serves molecular gastronomy in the spirit of Mary Shelley’s *Frankenstein* to question the thorny crossing of boundaries between nature and culture in science and industry. As a nature-culture figuration, *Bichicu-Chow* addresses the entangled histories of humans and other species to point to alternative ways of thinking about agency, power, difference, and sociability marginalized in science, based on a playful ethics of care.

HEALING AND WELL-BEING: BOTANY

Culo de Vieja (*Caléndula*)/*Culo de Vieja* (*Marigold*, 2019) (Figs 15–17) by Mariela Yeregui (b. 1966, Argentina) turns in a related vein to the herbarium. Part of the series entitled *Herbario silvestre de América Latina en tiempos de neoliberalismo* (*Wild Herbarium of Latin America under Neoliberalism*), *Culo de Vieja* is an augmented artist’s book and healing kit created in conversation with her former student and current fellow artist Claudia Valente.

Expanding on Valente’s view of the marigold’s ubiquity and wildness as signs of successful resistance to “the violence of agrototoxicity,” Yeregui reclaims the negative connotations of the common Argentinean denomination of the marigold as *culo de vieja* (old woman’s ass) [15]. In her wild herbarium, “woman’s ass” is a call for “opening of spaces for the ‘other’” and an ally “to build healthy presents and futures” [16]. This recalls anthropologist Natasha Meyers’s term “Planthropocene,” which recognizes the role of plants as sentient and agentive “conspirators,” as well as Ecuadorian artist Paul Rosero Contreras, who stresses that these notions have “been recognized by indigenous communities around the world for millennia” [17].

Culo de Vieja also gestures to the persistence of colonial European sexual norms in how we think about and even name plants in ways that still fuel sexism. It recognizes as well the longstanding kinship between women and plants, including as symbols of empowerment in feminist movements and art in Latin America [18].

As a call to disconnect from the digital matrix and connect instead with “the living, multispecies language and knowledge of the vegetable world,” *Matrix Vegetal* (2022) (Figs 18–20) by Patricia Domínguez (b. 1984, Chile) turns irreverently to cyberdelic culture [19]. The work’s various forms, including physical installations, presentations, video, and a book, build on the emergent notion of Latin American futurisms, or discourses and imaginations of the future in Latin America [20].

Matrix Vegetal contrasts relationships of reciprocity to those of extractivism between humans and plants across Andean communities and within colonial and corporate science and the wellness industry. For example, when presented as an installation, *Matrix Vegetal* includes various herbaria, one of which contains leaves and seeds used in ayahuasca, a South American psychoactive beverage used traditionally by Indigenous cultures for spiritual and healing purposes, and today consumed by neoshamanists, recreational drug tourists, and users in Latin America and abroad. Domínguez furthermore calls attention to how Indigenous peoples have been purposely excluded from accessing media technologies and simultaneously constructed as being outside of modernity. *Matrix Vegetal* accordingly includes Indigenous healers and activists

across the Andean region speaking about the project in an extension to ongoing struggles, such as over the lumber industry's impact on their communities and plant kin [21].

Venenosas, Nocivas e Suspeitas (Poisonous, Noxious, and Suspicious, 2024) (Figs 21–22, Color Image C) by Giselle Beiguelman (b. 1962, Brazil) also plays on a science fiction trope, time travel, but with an intersectional eye. The work takes its title from a nineteenth-century scientific manual by Anne Pratt (1857), one of the best-known botanical and ornithological illustrators of Britain's Victorian age [22]. However exceptional, Pratt was erased from the histories of art and science, like the many women pioneers in science illustration, a field that flourished before the invention of photography in 1839.

Beiguelman uses AI as “a magic camera,” allowing time travel to refocus these legacies. The resulting images include botanical illustrations of fictional plants inspired by works by past women illustrators, as well as fictional biographies and portraits of some of these women at the age of their deaths. Among them are Maria Bandeira (1902–1992), the first woman botanist at the Rio de Janeiro Botanical Garden; and Luiza Pinta (b. circa 1700), an enslaved xinguila healer from Angola who was sent to Lisbon in 1742 to be judged on charges of “diabolical rituals.” The portraits focus not only on how prejudice shapes past histories but also on contemporary practices of art and science, as evidenced by Beiguelman's laborious experience with AI technology, which, according to the artist, has difficulty creating images of older women with wrinkles, expression lines, and scars.

Inocular or Inoculate (2013) (Figs 23–25) by Ana María Gómez López (b. 1981, Colombia) focuses likewise on vision but employs biohacking to develop “an intimate proximity with nature” [23]. In practice, *Inocular* resulted from a two-week experiment that paradoxically centered on restricting vision in favor of germinating a begonia seed lodged in the artist's right tear duct. According to Gomez, the experiment was successful in this regard.

To the artist's claim that the begonia seed is meaningful as a global horticultural product, it is worth noting that Colombia and the Netherlands are the two leading traders in this market and respectively the artist's birthplace and current place of residency. The documentation of *Inoculate* blends historical, scientific, and poetic formats to similarly emphasize the role of the artist's body in understanding and producing knowledge. *Inoculate* literally embodies a focus on healing by moving beyond traditional divides between art, science, and technology; north and south; nature and culture; and body and mind. As indicated by Gomez herself, attentiveness to embodiment is rooted in self-research practices in the sciences. It is equally rooted in feminism, feminist art—including cyberfeminism—and digital art in/from Latin America that counter technofuturist claims of the fleshed body's obsolescence [24].

ARTFUL MINDS

This feature concludes fittingly, if provisionally, with the work of Sandra Llano-Mejía (b. 1951, Colombia), a pioneering artist working at the intersections of experimental music, embodied research, and medical imagery in Mexico and Colombia in the 1970s. Driven by her health experiences, Llano-Mejía

began experimenting with medical imaging technology (electrocardiograms and encephalograms) to translate her body's pulsations and biological registers (heart rate, breath, movement, brain waves) into the print series *Experiments with My Brain* (1970–74) (Fig. 26) and *The Line Of Life And Death* (1977–78) (Fig. 27). Echoing Brazilian artist Lygia Clark's explorations into the complex nature of perception as embodied [25], Llano-Mejía's lived experience with medical technology led her to develop an embodied techno-poetics that translated scientific measurements of vital energy as well as modes of perception and cognition into artworks, as seen in the video performance *Experiments in the Lab* (1977–78) (Fig. 28). Like other artists experimenting with biofeedback technology, Llano-Mejía proposed vital energy and an embodied sensorium as a medium for creative expression and communication.

Llano-Mejía's early experiments with medical technology serve as a grounding to connect the poetics of well-being and care proposed by the artists presented in this feature. As a framework to understand Armas's use of technology to translate the electronic pulsations of the heart into vital energy; Gómez López's use of biological methods (inoculation) to emphasize lived experience; Badani's whimsical crossings of nature and culture, life and vital energy; or Munguía's invitation to attune to other modes of perception, Llano-Mejía offers a pathway toward understanding how these artists use technology to propose more pluralistic and embodied understandings of care and well-being across species, entities, and environments.

Altogether, the artists and works examined demonstrate that Latin American women have contributed to various fields of art, science, and technology despite the exclusion of these works from various canons. As themselves countering imperial science (geology, zoology, biology, and botany), organized by practices of extraction and racial and gendered subjugation, these artists approach technology and the shapes of geological formations, as well as animal and plant worlds, as inextricably linked to questions of justice, world-making, and future-building. Their works move theory forward by giving shape to artful science and technology in practice.

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WOMEN, ART, SCIENCE, AND TECHNOLOGY IN LATIN AMERICA, 1970S TO THE PRESENT

Marcela Armas

Tsinamekuta is an artistic project based on the discovery of pyrrhotite, a ferrous oxide with magnetic properties. This mineral comes from the interior of a mine operating for 150 years in Tsinamekuta, a mountain and ancient ceremonial center located in Wirikuta, the sacred zone of the Wixárika people, in central Mexico. *Tsinamekuta* is a ceremonial act that involves a consultation with a Wixárika family and a series of conversations and walks, which accompany the construction of analog and digital artifacts and instruments, to approach the mineral and, through it, these lands. Among them is a wind instrument whose harmonic voices respond to an open composition, written in code, that interacts with data obtained from a reading of the magnetic field of the pyrrhotite. Through magnetic induction, the electrical signals of the pulse of two human hearts were induced on the surface of a mineral fragment as an offering. This ceremonial process concluded with the rock's return to the interior of the mountain, its place of belonging. Through the ritual approach, *Tsinamekuta* proposes a repositioning of the technological object and the intentionality of its use.

BIO

Marcela Armas (b. Mexico, 1976) questions the relationship of humans with the Earth to consider living relational webs in resistance. Her works are articulated through art, technologies, sciences, and situated knowledge systems.



Fig. 1. *Tsinamekuta*, 2016–2021. Wind instrument for the interpretation and rewriting of the magnetic field of a mineral fragment. (© Marcela Armas. Photo: Daniela Edburg.)

She investigates material languages in alliance with complexity and biocultural diversity, seeking processes of energetic, nutritional, and organizational autonomy, involving the recovery and validation of ancestral and community knowledge.

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Fig. 2. *Tsinamekuta*, 2016–2021. Ceremony for a mountain. Sound interpretation and rewriting of the magnetic field of a mineral fragment. (© Marcela Armas. Photo: René Torres and Daniela Edburg.)



Fig. 3. *Tsinamekuta*, abalorio, 2016–2021, colored beads, wax, plaster (traditional Wixárika technique). Three-dimensional map of the magnetic field of pyrrhotite. (© Marcela Armas. Photo: Benjamín Roberts, courtesy of Center for Craft.)

Gabriela Munguía

I recover diverse Latin American worldviews from the edges between art, science, and technology to address issues of geopolitics, interspecies relations, and environmental justice. Indiscipline practices, environmental humanities, and open technologies are the toolbox for my artistic production. Projects take the form of sound-based, light-driven, data-generated, and site-specific transmedia installations, performances, and experimental formative experiences open to communities. I explore invisible ecologies that require an equation of thinking and feeling together. To know how the Earth feels and how it is felt is to know ourselves. It is to savor ourselves, to smell ourselves, to listen to ourselves, to orient ourselves to the Earth. “Thinkingfeeling” without divisions allows us to recognize the fabric, the skin that connects us. It is thinking environmentally. In this sense, toning a Global South environmental thought—fueled by an expanded aesthetic through invisible ecologies—allows us to conspire in the urgency of a material, agential, and geological planetary tone. A radical conspiracy to poetize the world and reconcile ourselves with life.

BIO

Gabriela Munguía (b. Mexico, 1985) is an artist, curator, and transmedia researcher. She explores art and technoscience through ecological and cosmotechnical planetary phenomena. Founder of the Laboratory of Invisible Ecologies and member of the collective Electrobiota, she received the Prince Claus-Institut Goethe Mentorship Award for Cultural and Artistic Response to Environmental Change, a CIFO-Ars Electronica Award, and an Honorary Mention from Prix Ars Electronica Interactive Art, among others. Her work has been exhibited in international shows and festivals in the Americas, Europe, Egypt, and Iran.

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Fig. 4. *Sounds to the Wind*, Brazil, 2017. Site-specific intervention with a meteorological-sound antenna built with local materials, as exercises of puncture, memory, and territorial resilience. (© Gabriela Munguía)

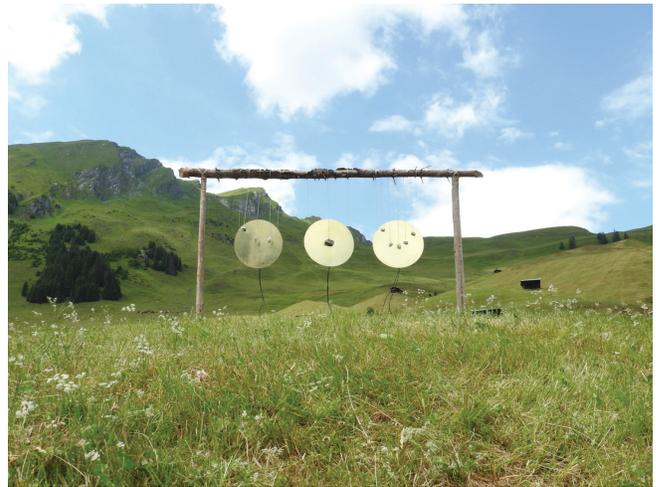


Fig. 5. *Geomorphological Conversations*, Switzerland, 2018. Sound and light installation in the Swiss Alpine landscape, in the rural community of Tenna, exploring the limits and contrasts of the landscape as vectors within the horizontal and vertical from the erosive process of the wind on this great mountain system. (© Gabriela Munguía)

Fig. 6. *Resonance of Time Particles*, Argentina, 2019. Mechano-sonic installation that takes the phenomenon of terrestrial erosion as the central reading and reconstruction point of this territory, its memory, and geomorphology. (© Gabriela Munguía)

Minerva Trejo

My work appeals to the pause, to contemplation, to the sacred, to collective healing based on multiple knowledge systems that remind us we are not separate from the cosmos but rather deeply intertwined with it. I understand ritual as an offering, a gesture, feast, conclave, agape, self-allusive meditation, cosmic choreography, choral embrace; as a form of gratitude and a link between what is above and what is below; the inside and the outside becoming one with the spaces we inhabit and the energies that flow through them. Could we turn off individual consciousness for a moment? Disconnect(us) from(between) everything(s) before rebooting and starting anew with mental, spiritual, muscular, and procedural adjustments? This would ignite us like a match, and the entire memory of the cosmos would be expressed in a collective heartbeat—an ephemeral and yet enduring recollection. The objective is to open life's pulsations, uncovering, unblocking, expanding spaces of freedom by letting the wind sneak through the cracks, healing wounds, circulating and cleansing in a trance of memory that will allow a new beginning in a new cycle.

BIO

Minerva H. Trejo (b. Mexico, 1968) is a transdisciplinary artist whose work explores collective memory and the relationship between body, technology, science, poetry, and vitality. She has been an honorary member of the National System of Creators since 2010 and is part of the Art and Science research and creation group of the UNAM (Universidad Nacional Autónoma de México). Trejo directs the transdisciplinary Bioscénica company, dedicated to creating, developing, and producing proposals combining arts, sciences, and technology.

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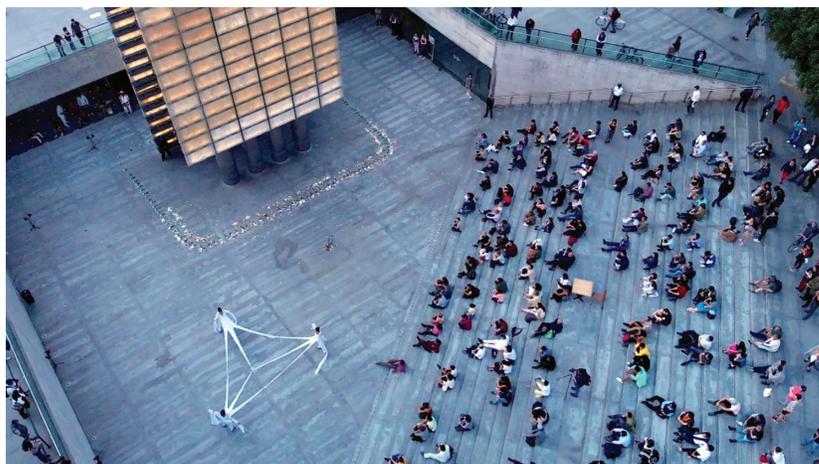


Fig. 7. *Empatía 5.1*, 2019. Technoshamanic ritual for site-specific installation. (© Bioscénica)



Fig. 8. *Empatía 5.1*, 2019. Technoshamanic ritual for site-specific installation. (© Bioscénica)



Fig. 9. *Empatía 5.1*, 2019. Mandala in honor of Grace Quintanilla. (© Bioscénica)

María Antonia González Valerio and Leena Lee

Cabe los pájaros (*By the Birds*) (2020–present) is a long-term project integrating María Antonia González Valerio's philosophy of nature and Leena Lee's sound art through field research in various landscapes, inviting slow listening and embodied experiences. The bird matters. Its history matters. Its worlding matters. Becoming bird, however, is a kind of extra-limiting madness whereby the human psyche is lost in what it is not. How to think in bird? How to inhabit in bird? Sound walks and textualities, performances and concerts, recordings and long meditations have emerged from this multifaceted project. Explorations have taken us through the Veracruz cloud forest, the Tepozteco mountains, the forest of Valle de Bravo, and, most notably, to various sites in Mexico City, with the Ecological Reserve of Pedregal de San Ángel serving as their primary case study. Throughout its many years and iterations, the project has been presented in different formats and fostered collaborations with artists' collectives and independent artists.

BIOS

María Antonia González Valerio (b. Mexico, 1977) is a philosopher, curator, artist, and researcher working at the intersection of art and science. She is a full professor of philosophy at UNAM (Universidad Nacional Autónoma de México). Her latest book, *Through the Scope of Life*, is published by Springer (2023).

Lena Ortega Atristain (a.k.a. Leena Lee, b. Mexico, 1977) is an atmosphere artist, researcher, and designer. She explores embodied affective experiences, environmental correla-



Fig. 10. Xalapa, Veracruz, 2021. María Antonia González Valerio and Fernando González-García watching hummingbirds through binoculars. (© Mariantonia González Valerio)



Fig. 11. Centro Cultural Los Pinos Meditatio Sonus session, Mexico City, 2022. María Antonia González Valerio during the performance. (© Lena Ortega Atristain)

tions, and cohabitation through sonic and luminous atmospheres. As part of *Bosque Vacío*, she released the album *Cantera Oriente* with Flaming Pines.

María Antonia González Valerio

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Fig. 12. Xalapa, Veracruz, 2021. Hummingbird-watching site visited by María Antonia González Valerio and Fernando González-García. (© María Antonia González Valerio)

Pat Badani

Informed by food web organisms, *Bichicu-Chow* (2019) incorporates food, glitch art, a tactical media project deployed on social media, and an expanded animation using 3D simulation software. In keeping with my holistic approach to scientific, cosmological, and social ideals, the imaginary 3D “creature” is informed by my series of DIY bio forms exploring interconnections among disintegrating vegetable matter, thriving recycled matter (bacteria, mold, and fungi), and a human ecological facilitator (myself), resulting in a curious archaeology of artifacts that act as future-oriented worldmaking. The checkered “quilt” covering the 3D modeled creature is taken from my tactical media work in which images of industrially produced food-stuffs were subjected to a recodification process, causing disruptions to the established order. The glitches were obtained by erasing the back-end codes driving the images and injecting literary texts highlighting women’s caring role in food production, distribution, and consumption. Exploring qualities of entanglement found in the configuration of natural and artificial ecosystems, *Bichicu-Chow* makes visible the connection of aesthetics with the possible environments of synthetic life. Their coexistence and constant change are made possible due to the transformative process generated by biological and computational systems in the social, habitable, and creative spheres.

BIO

Pat Badani (b. Argentina, 1951) draws from art, science, and technology to create artistic argu-



Fig. 13. *Incu-Bichu*, 2019. A series of DIY bio forms of vegetables and fruits that grow mold in my domestic incubator. Like in an alchemist’s kitchen where substances continually act with one another to shape new things, these works unfold through different states of transformation. They inform the creation of polymorphic 3D simulations. (© Pat Badani). See also Color Image B, In Color section.

ments that critically examine social, biological, and technological networks. Recipient of 20 international awards, Badani exhibits projects broadly in North and South America, Europe, and Asia, and has participated in symposia with her essays and talks in over 15 countries.

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Fig. 14. *Comestible: Detox*, 2019. Glitch art created by recodifying industrially produced images of food. The back-end code driving the images was erased and replaced by literary texts that highlight the caring role of women in food production, distribution, and consumption. (© Pat Badani)

Mariela Yeregui

My artist's book carries a healing essence, functioning almost like a therapeutic kit—offering micro-universes that serve as antidotes to bodily pain. I deliberately refer to the *bodily* rather than the *body*, in a Heideggerian sense—that is, the body immersed in its own being, an *embodied* body. A body that, both ontologically and phenomenologically, is *being*. Within my volume, the past resurfaces—not as a mere nostalgic gesture but as an active, transformative presence. The marigold, or *old woman's ass* (a colloquial Argentine term, which I personally embrace), acts as a catalyst for lived experience, fostering the construction of healthier presents and futures. This humble yet powerful flower serves as a medium through which small, sensorial experiences are articulated, mitigating the aches of our corporeal existence and reconnecting us with nature's intimate, restorative power. This work is part of “Herbario Silvestre de América Latina en tiempos de neoliberalismo” (America in Times of Neoliberalism), curated by Claudia Valente. Through this project, I explore how botanical elements, cultural memory, and embodied experience intertwine, offering a space where personal and collective wounds can find a poetic and sensorial form of healing.

BIO

Mariela Yeregui (b. Argentina, 1966) is an artist, educator, and scholar who challenges traditional art/technology relationships, creating situated technological practices that intertwine life scenarios with the environment through installations, net-art, and robotics. She has received prestigious prizes and founded UNTREF's (Universidad Tres de Febrero, Argentina) Electronic Arts Master's program. She is currently an associate professor at RISD (Rhode Island School of Design) in the USA.

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Fig. 17. *Culo de vieja (caléndula) / Culo de vieja (marigold)*, 2019. Artist's book from the collection Herbario Silvestre de América Latina en tiempos de neoliberalismo, curated by Claudia Valente. (© Mariela Yeregui. Photo: Alvaro Katz.)



Fig. 15. *Culo de vieja (caléndula) / Culo de vieja (marigold)*, 2019. Artist's book from the collection Herbario Silvestre de América Latina en tiempos de neoliberalismo, curated by Claudia Valente. (© Mariela Yeregui. Photo: Alvaro Katz.)



Fig. 16. *Culo de vieja (caléndula) / Culo de vieja (marigold)*, 2019. Artist's book (detail) from the collection Herbario Silvestre de América Latina en tiempos de neoliberalismo, curated by Claudia Valente. (© Mariela Yeregui. Photo: Alvaro Katz.)



Patricia Domínguez

“Matrix Vegetal” combines experimental ethnobotany, South American quantum thinking, dream fiction, and organic technologies to broaden perception and better understand the workings of the plant and spiritual universe. Drawing on botanical science fiction, the video installation proposes a restoration of communication between the human and the more-than-human, representing visions, teachings, and routes delivered by the plant universe and offering a poetic perspective on contemporary existence, intricately intertwined with the earth. The video installation emerges as an artistic interpretation of my experience as an artist while I was apprenticed to Amador Aniceto—a healer living in Peru’s Madre de Dios and honored by the plants as “General Physician of the Flora and Fauna of the Universe” for his sacred, multiple, and mystical vision of the plant universe. Under his guidance, I activated an intimate process of connection with living knowledge. To do so, I set out to achieve a temporary detachment from the digital matrix, activating instead an alliance with the vegetal matrix. In this way, I established a link with language that goes beyond the human, connecting with planetary memory.

BIO

Patricia Domínguez (b. Chile, 1981) is an artist, organic technologist, and Earth defender based in Puchuncaví, Chile. Assembling experimental research on ethnobotany, extractivism, and healing practices, her art focuses on tracing digital and spiritual relationships between living species in an increasingly corporate cosmos. Domínguez is the founder of Studio Vegetalista, an experimental platform for ethnobotanical research. She obtained a Botanical Art Illustration Certificate at the New York Botanical Garden (2011) and an MFA from Hunter College, New York state (2013).

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Fig. 18. *Matrix Vegetal; Amador nos enseñó a convertirnos en aves* [Vegetal Matrix, Amador taught us how to become birds], 2021, analogue photograph. (© Patricia Domínguez. Photo: Emilia Martín. Commissioned by Screen City Biennial, with the support of Cecilia Brunson Projects.)



Fig. 19. *Matrix Vegetal, la última mano, a un paso más lejos de mi sensor humano* [Vegetal Matrix, the last hand, a step beyond my human sensorium], 2021, analogue photograph. (© Patricia Domínguez. Photo: Emilia Martín. Commissioned by Screen City Biennial, with the support of Cecilia Brunson Projects.)

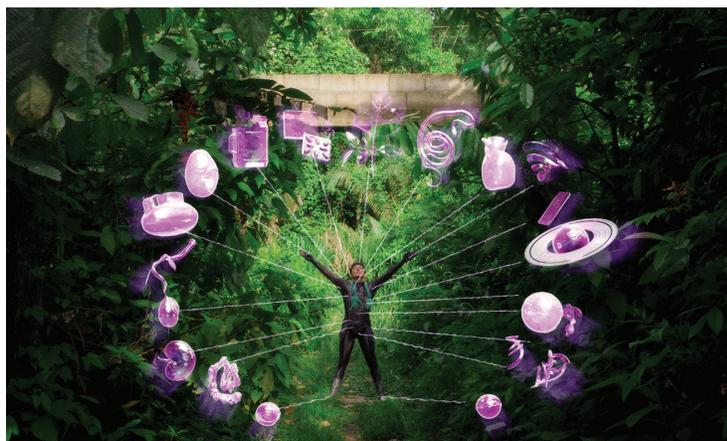


Fig. 20. *Matrix Vegetal*, 2021–2022, still video 4K, 21:12 min. (Commissioned by Screen City Biennial, with the support of Cecilia Brunson Projects.)

Giselle Beiguelman

“Poisonous, Noxious, and Suspicious” (2024) focuses on plants that were forbidden, stigmatized, and banned under the colonial “civilizing” process due to their roles in sacred rituals, their hallucinogenic and aphrodisiac properties, and their significance in ancestral healing. I depict these plants using artificial intelligence, referencing botanical illustrations created by women who have been largely erased from the histories of art and science. The project’s title comes from a nineteenth-century teaching manual by Anne Pratt (1857), and the installation combines prints, videos, and a living garden. Through speculative biographies, I interweave the stories of forgotten botanists and those once labeled as witches—some of our earliest physicians—with “suspect” plants like cannabis, morning glory, mandrake, cassava, yerba mate, and catnip. Completing the installation is a gallery of speculative portraits produced with AI, reworking archival images of ancestral wise women and scientists such as Luzia Pinta, Maria Sibylla

Merian, Mary Elizabeth Banning, and Maria Bandeira. I imagine them at the age of their death, in symbiosis with the plants they studied, challenging the racist and ageist biases of contemporary technologies. Accompanying each portrait are accounts of their lives and the gender-based violence they experienced.

BIO

Giselle Beiguelman (b. Brazil, 1962) is an artist and a professor at the University of São Paulo, Brazil. Co-author of *Boundary Images* (University of Minnesota Press, 2023), among others, her artistic works are part of international museum collections in Brazil and abroad. In her current projects, she investigates the construction of colonialist imaginary in arts and sciences using artificial intelligence resources.

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Fig. 21. *Portrait of Maria Bandeira* [Brazil, 1902–1992], 2024, inkjet on paper, 50 × 70 cm. Created with artificial intelligence from archive images of the young artist-scientist. (© Giselle Beiguelman. Photo © Paula Monroy.) See also Color Image C, In Color section.



Fig. 22. Fictitious botanical illustration of a belladonna flower created with artificial intelligence, inspired by the work of Giovanna Garzoni (Italy, 1600–1670), 2024, acrylic print, 40 × 40 cm. (© Giselle Beiguelman)

Ana María Gómez López

For *Inocular* or *Inoculate* (*B. semperflorens*), I introduced a begonia seed within my tear duct using an ophthalmological plug designed for collecting lachrymal fluid: a device often prescribed for individuals with dry eyes. After approximately two weeks, a minuscule seedling emerged. Following the ocular germination, I created a kit containing all medical instruments used for *Inocular*, alongside begonia seed specimens and a glass ampoule filled with my own tears. Likewise, I produced an instruction manual on how to carry out this self-experiment. This how-to guide is available in Esperanto—a nineteenth-century artificial language created by a Polish ophthalmologist—as well as Aymara, Dutch, English, French, German, Guarani, Kreyòl, Nahuatl, Portuguese, Runasimi (Quechua), and Spanish, all of which connect to the history of the begonia. By crossing out this word, I underscore the contradiction between extensive pre-Columbian knowledge of this plant species (including its therapeutic properties for treating ocular afflictions) and its seventeenth-century taxonomic naming by French monk and botanist Charles Plumier in honor of Michel Bégon, former colonial official of Saint-Domingue, now present-day Haiti.



Fig. 23. *Inoculate* (*B. semperflorens*)—*Dispositifs*, 2023. Custom-made portable case with medical instruments for ocular germination, Index Semina seed strains, and an ampoule with the artist's lacrimal fluid. (Photo: Margareta Svensson.)

BIO

Ana María Gómez López is an artist from Cali, Colombia, based in Amsterdam, Netherlands. Her practice centers on self-experimentation using organic specimens, clinical procedures, and technical instruments. Examples of previous and ongoing works include the formation of an artificial pearl in her mouth and the circulation of her blood through an extracorporeal web.

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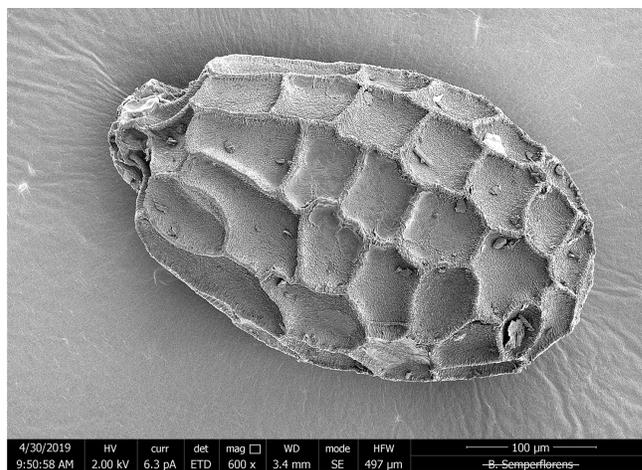


Fig. 24. *Inoculate* (*B. Semperflorens*)—*Basal Tear*, 2018. Digital microscopy image of artist's tear at x250 magnification. (Photo: Maurice Mikkers.)

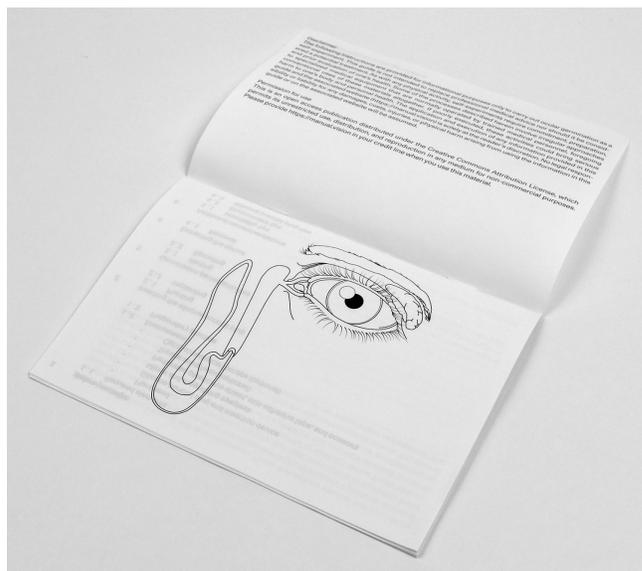


Fig. 25. *Inoculate* (*B. semperflorens*)—*Manual*, 2023. Artist book with instructions for ocular germination. (Photo: Current Matters)

Sandra Llano-Mejía

Artists engage with technology across different contexts, revealing challenges and shifts that bridge the gap between the imagined and the achieved. An intense curiosity, coupled with a deep desire to understand and integrate science into my work, drives my creative process to explore technologies and push their boundaries. I view art as a powerful force that creates and compels innovation—a perspective that fosters hybrid and dynamic interactions between disciplines, embracing rupturist, transgressive, and even irreverent approaches. The interplay between art, science, and technology is crucial to my practice, fostering relationships that constantly revitalize and expand my creative work's conceptual and material aspects. I am open to the introduction of new ideas and languages into my imaginary as an artist-creator beyond timed time, an approach that molds my perceptions and understanding of history and the present, allowing me to interpret the effects of scientific innovations. This process is often intersected by cracks, abysses, insomnia, and silences, highlighting the importance of intervals—*diastematic* factors intrinsic to my work.

BIO

Former professor of epistemology Sandra Llano-Mejía (b. Colombia, 1951) studied visual arts in Mexico, focusing on medical technologies. She has engaged in experimental practice incorporating various contemporary media, often using her body as a tool to integrate art, science, and technology. Her work is exhibited internationally and reviewed in books and art magazines. She is considered a pioneer of video art, and her work is in the MoMA permanent collection and the Modern Women in Art MoMA online Collection.

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Fig. 26. *Experiments with My Brain*, 1973–1974, electroencephalogram. Research in a medical laboratory and hospitals for my laureate thesis “Ícono natural y projectual” (Natural and Projectual Icon). (© Sandra Llano-Mejía)

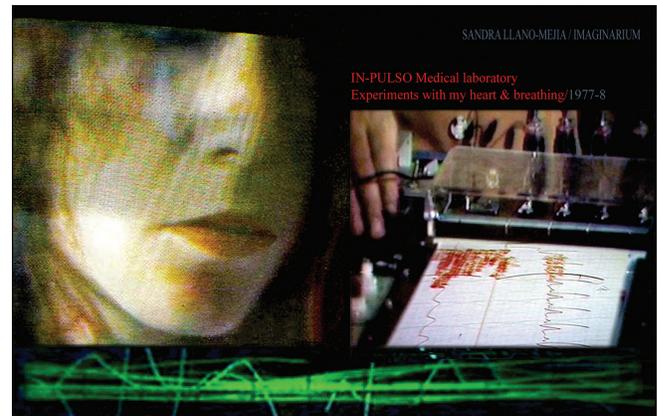


Fig. 28. *In-Pulso*, 1977–1978. Medical laboratory experiments with different stimuli to my body, like drinking, talking, moving, altering my vital rhythms in the electrical traces that can be seen in the oscilloscope and the paper. (© Sandra Llano-Mejía)

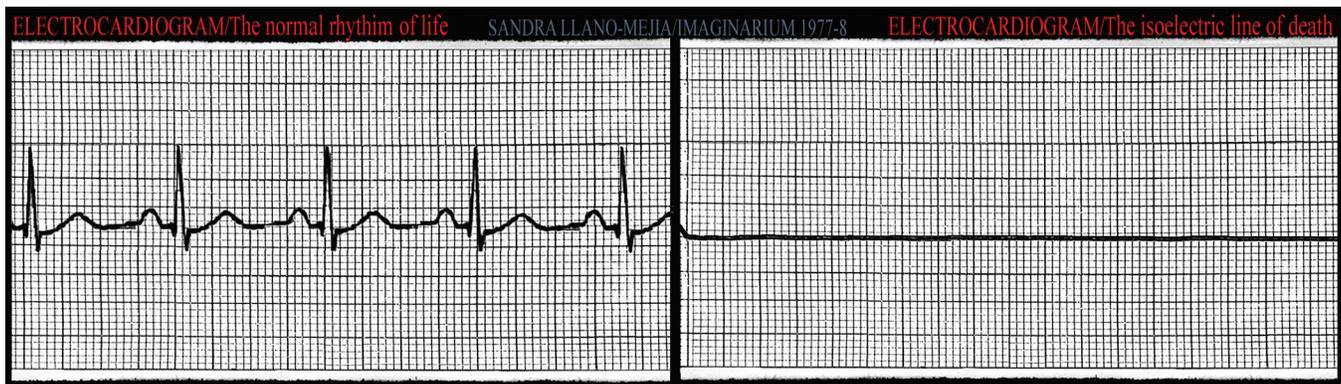


Fig. 27. *De lo vital a lo sensible / From the Vital to the Sensible/ De la energía vital y otras emociones (Of the Vital Energy and other Emotions)*, 1977–1978, electrocardiogram. The normal rhythm of life/The isoelectric line of death, research in a hospital with normal and terminal patients. The process of life and death. (© Sandra Llano-Mejía)