

The Avant-Garde in Ecology: Environmental Art as Experimental Practice

Avant-garde art has continued to challenge conventional boundaries and this intersection can be found in Contemporary Environmental Art as artists reframe the concept of how to illustrate the fragile relationship between humanity and nature. By experimenting with unconventional methods, artists like Mel Chin create interactive installations such as *Revival Field* (1991-Ongoing), in order to spark a dialogue about sustainability and the importance of cherishing the health of the ecosystem. He blends scientific research with artistic intervention by using a living installation of plants to extract heavy metals from contaminated soil. One of the key aspects of *Revival Field*, is how Chin is able to manufacture a tool for environmental restoration through the foundation of using art as its building block.

In an interview conducted by Tom Finklepearl he asks Mel Chin, “When is it legitimate or necessary to be silent as an artist?”, and Chin responds with, “Silence is death, but if it’s only noise that we make, that can also lead to an early grave”.¹ This statement exemplifies the balance artists must learn to grasp, finding a creative narrative between impactful expression and meaningless output. This view suggests that creating art without purpose or substance can be equally destructive as being disengaged with critical issues in contemporary culture, such as reducing the value and impact on societal and ecological concerns. *Revival Field*, upholds the notion that art must transcend mere commentary and become a tool for active engagement. Change is inevitable regardless of intention because conditions are constantly shifting, which

¹ Hecker, Sharon, and Silvia Bottinelli. *Lead in modern and Contemporary Art*. London, UK: Bloomsbury Visual Arts, 2021.

aligns with this multimedia project as it thrives on the ongoing understanding that ecological conditions are constantly shifting in parallel to humanities advancement.

Revival Field was created in 1991 and began as a conceptual artwork with the purpose to sculpt a site's ecology. It was designed as a 60-by-60 foot plot, with circular arrangements of hyperaccumulator plants, which are an unique group of flora that are capable of absorbing and storing high concentrations of heavy metals in their tissue without suffering damage. These plants are also used in phytoremediation, which is an environmentally friendly technique to clean up contaminations such as oil, pesticides, metals and explosives in soils, water or air.² This site-specific installation was located at Pig's Eye Landfill in St. Paul, Minnesota, where the original installation was dismantled in 1993 due to its temporal nature. This project combined an intersection of disciplines, as Chin worked closely with scientists and research professionals such as Dr. Rufus Chaney at the USDA. In an interview between Mel Chin and Dr. Rufus Chaney, it was revealed that it took a learning process for Chin to become comfortable with this multi-disciplinary action. Dr. Chaney asks, "From your point of view, when did you become comfortable working with scientists?" and Chin responds with, "When I overcame the stereotype of what a scientist is and what an artist should be".³ Chin realized that this would require a partnership, in order to enhance the world of science as well as the world of art. By pushing past a moment of uncomfortability and initial rejections of grants from the National Endowment for the Arts for *Revival Field*, Chin was able to pioneer his vision of this installation into reality.

Through experimentation of combining different professions and testing limits, Chin was able to

² A citizen's Guide to phytoremediation. Accessed December 5, 2024.
https://www.epa.gov/sites/default/files/2015-04/documents/a_citizens_guide_to_phytoremediation.pdf.

³ Hecker, Sharon, and Silvia Bottinelli. *Lead in modern and Contemporary Art*. London, UK: Bloomsbury Visual Arts, 2021.

receive a \$10,000 grant for the first year of *Revival Field* from the N.E.A and also played a pivotal role in the development of phytoremediation. It was documented that numerous graduate students were doing research in order to understand how hyperaccumulator plants actually achieve the tolerance of toxic metals in their system, shortly after *Revival Field* became public. Key plants that helped remediate the contaminated site and that were studied in different institutions were Alpine Pennycress (*Thlaspi caerulescens*), Indian Mustard (*Brassica juncea*) and Sunflowers (*Helianthus annuus*), with all 3 plants having the ability to absorb high concentrations of heavy metals such as lead and calcium.⁴ It essentially was a low-cost method that carried the bigger picture of using eco-art as a tool for environmental activism by reinforcing the idea that artists can play an active role in environmental advocacy and scientific progress.

Conceptually, *Revival Field* is a sculpture that involves a reduction process. The traditional method is by using tools to carve stone or wood, but at this site the material is unseen, where the tools consist of agriculture and biochemistry. In a scholarly article “Land and Environmental Art” it states, “The formal configuration of the work consists of two fenced-areas - a circle within a square. The circular arena planted with the detoxifying weeds, serves as the test site, whereas the square, unplanted and of equal area, serves as the control”.⁵ The circular test area was divided into ninety-six separate plots to assess different soil and pH treatments as well as other management techniques. Prior to the early stages of the conception of *Revival Field*, Chin spent several months studying jimson weed (*Datura stramonium*) beyond its well-known psychedelic properties and mystical powers. He was unable to verify his claims that

⁴ “Electronic Thesis and Dissertation Repository.” Site. Accessed December 4, 2024. <https://ir.lib.uwo.ca/etd/>.

⁵ Ryan, Zoë, and Mel Chin. “A Conversation With Mel Chin.” *Log*, no. 8 (2006): 59–68. <http://www.jstor.org/stable/41765589>.

this plant could be used to remediate soil in the way he envisioned. It took about 4 months for Chin to find Dr. Chaney, where he was connected by Curt Brown at Texas A&M, who enlightened Chin on a lecture Dr. Chaney recently gave on *Datura*. Through their first connection, Chin called Dr. Chaney who then told Chin that *Datura* might get him high, but it won't pick up on any heavy metals. Through that exchange, Chin realized that he had found the right person and that it was apparent that he still had a lot to learn. By teaming up with Dr. Chaney and Dr. R.R. Brooks tested the plants that were in *Revival Field*, and it was proven that they were visible toxic sponges and could be not only beneficial but practical and economical as well.

The Minnesota *Revival Field*, was the first on-site experiment of this scale in the United States, and one of only two in the world. Pig's Eye field was harvested for the final time in October 1993, ending its first-three year test. The Alpine Pennycress samples taken from the site showed immense absorption in the leaves and stems of zinc, verifying the idea of green remediation. With the positive results from Minnesota, Chin put into motion an international *Revival Field* effort, sponsored by the Ministry of Culture of the Netherlands, where they would plant even more fields at contaminated sites in that country and Belgium. A second site was already placed at a national priority Superfund site in Palmerton, Pennsylvania in 1995, following the last harvest of *Revival Field* in 1993. *The Avant-Garde in Ecology*, the idea of "experimental practice" is crucial, as it highlights how artists like Chin experiment not only with media but also with scientific methods to influence public consciousness of environmental degradation. It wasn't Mel Chin's concept that plants can be used as bioremediation agents for polluted soil, but Dr. Chaney who proposed that idea in 1983, but was then ultimately shelved by the conservative politics of the time. Dr. Chaney was one of the few people in the world who had

belief in this untested process and as the two disciplines of art and science collided, Chin excitedly exclaimed “My desire to create a sculptural work rekindled Dr. Chaney’s hopes of bringing this biotechnology into fruition, and we initiated an earnest co-operation that eventually led to the first *Revival Field*”.⁶ This collaboration reflects the transformative power of this union, as the essence of *Revival Field* subverted the conventional understanding of what a sculpture could be, utilizing living plants as its medium. Through this site's innovative structure, it functioned as a living experiment, where the artwork’s success and aesthetic depended on its ability to engage and alter ecological conditions of the site. This interplay of art, science and advocacy embodies the avant-garde ethos of experimentation and the dismantling of traditional separations between disciplines. The project’s boldness captures the ability to reimagine the role of art in addressing urgent global challenges such as climate crises and change.

While *Revival Field* is a remarkable work of the power of manufactured contemporary culture, it also has roots in ancient doctrine and systems. Chin clearly defined a mandala-like area, a circle within a square, which was then bisected into quarters by two elevated walkways. In “Soil and Sky”, a section discusses how this site took on the ancient Sumerian model of totality. It is a philosophical and cosmological framework that reflects the interconnectedness of all elements within the cosmos. This model is rooted in Sumerian mythology as it views the universe as a network where divine, natural, and human forces are interdependent.⁷ “The world is fundamentally circular but divided into four quarters based on the cardinal compass points”⁸, which draws a reflection and parallel of how this model of totality reflects *Revival Field*. It

⁶ Kastner, Jeffrey, and Brian Wallis. *Land and environmental art*. London: Phaidon, 2015.

⁷ SPEISER, E. A. “THE SUMERIAN PROBLEM REVIEWED.” *Hebrew Union College Annual* 23, no. 1 (1950): 339–55. <http://www.jstor.org/stable/23614789>.

⁸ Hecker, Sharon, and Silvia Bottinelli. *Lead in modern and Contemporary Art*. London, UK: Bloomsbury Visual Arts, 2021.

echoes how the site draws in the interconnectedness and collaboration between human and non-human systems. Just as the Sumerians saw human actions as a part of a broader ecological web, Chin's project integrates art and nature to address degradation of the environment. By sculpting the unseen, Chin's artistic approach of using living plants to remediate soil, aligns with Sumerian philosophy of creating harmony through purposeful action. By transforming an unseen pollutant into a visible narrative of healing, both Chin and Sumerian rituals sought to make divine order visible through symbolic acts. The phrase "As above, so below" is also embodied in *Revival Field*, as it employs the idea of ecological restoration of the soil by using "sympathetic magic" in order to disseminate the development and essence of this site throughout the cosmos. "As above, so below" originates from the Hermetic tradition, specifically from the text known as *Emerald Tablet*⁹, where it discusses metaphysical principles of the correspondence between different levels of existence or reality. This ethics also tries to explain the connection between the macrocosm (the larger, cosmic world) and the microcosm (the smaller, earthly world). Chin's work showcases the idea by showing how small the microcosm of a contaminated landfill can reflect the impact of the macrocosm of global environmental health. By combining these metaphysical principles to this land art, one can draw the relationship between Pig's Eye Landfill, by claiming that if this little plot of land can get clean, maybe the whole earth will be able too, due to the hidden connection between the microcosm and macrocosm. Connecting this back to "sympathetic magic", Chin transforms the contaminated soil into a metaphysical canvas, where the act of planting hyperaccumulator plants becomes a ritual of healing. This synthesis of artistic expression, ancient philosophy, and environmental science expand on the message of how the microcosmic efforts at Pig's Eye Landfill can reverberate outwards, inspiring a larger global

⁹ Hanegraaff, Wouter J., Peter J. Forshaw, and Marco Pasi, eds. *Hermes Explains: Thirty Questions about Western Esotericism*. Amsterdam University Press, 2019. <https://doi.org/10.2307/j.ctvx8b74s>.

movement. Although spiritual ideals can be applied to Chin's *Revival Field*, this site was produced with scientific intention, despite underlying layers of mysticism.

Contemporary Environmental Art has greatly evolved over time, as its origins can be traced back to the earliest of landscape paintings in the beginning of art history. Landscape is a medium of all cultures, where it can be seen as an ideological class view in which the painted landscape gives cultural exchange. A prominent landscape artist is Albert Bierdstat, who curated grand works of romanticised and idealistic scenes of horizontal planes, often depicting the vast and untouched wilderness of the American West. His works reflected the 19th-century idea of Manifest Destiny, placing a strong emphasis on the sublime beauty of nature, while simultaneously glossing over the ecological and social disruptions of expansionism and colonialism. However, as environmental awareness has grown, contemporary environmental art has shifted its focus from idealized representations of land to active engagement with ecological issues. Land art began in the 1960's, where famous artists such as Micheal Heizer and Robert Smithson used land as their canvas, and organic materials as their medium. During this time, ecological concerns became more prevalent which pushed the land art movement to the beginning of the environmental movement. As artists began to recognize the growing threats posed by industrialization and other fast paced advancements, they started to create works that not only interacted with the environment but also drew in deeper and critical thinking from the collective humanity consciousness. Rather than being passive, explicitly was now the front runner of using artistic method and creation for the environmental intervention of the degradation of earth's ecosystem.

In connection to a present day installation, Olafur Eliasson's exhibition *OPEN*, located at the Geffen Contemporary at MOCA, in Los Angeles, also showcases the importance of

experimental art just like Mel Chin's *Revival Field*. One of the lighting projection pieces on display invites the viewer to the back, where one can first hand observe and witness how Eliasson constructed an intricate formula of how the piece on display is composed. This exemplifies the notion of why experimental art is so important, as rather than gatekeeping its process, it invites viewers to interact with it, allowing them to experience the artistry behind the work. Eliasson creates a layer of transparency that demystifies the notion of art-making, encouraging active participation rather than passive observation. Traditional art in terms of what is known in art history mostly showcases art that could only be achieved through extreme financial privilege or commissioned by royalty making it inaccessible to "common people". But as time moved on, so did collective thinking of humans' relationship to art changed as well. Leaning off from observed experiences, there is a sense of depersonalization when one is viewing an intricate painting produced by a famous artist in a contained setting. It can often feel cold, as one aspect of it feels like there is no personal relationship developing between the piece and viewer. A work that feels like it was produced for the sole gain of monetary value feels alienating, as there is no collective calling for expanding on a grander vision. Experimental art carries a different essence than traditional work, as it is made with the integration of intentionality and a desire to tell an artist's truth with a no regard filter for external validation. Eliasson's installation is not just "good" but great, as good art impresses viewers for a fleeting moment, but greatness makes viewers want to create. The experience of experimental art is individual but collective, inviting everyone to create but to expand on their own true vision. That is the beauty of people getting more aware of their autonomy. Society is currently witnessing a different realm of experience by viewing these experimental and avant-garde installations and wanting to collectively add more to the global narrative of artistic worldbuilding. With the way

the meaning of art changed overtime, it is only natural for creation and inspiration to be more accessible to all circles of varying demographics.

A topic that has been debated, discussed and dissected by art historians is “what makes an artist great?”. What differentiates an artist that makes a fleeting impression to one that carries on a cultural legacy? With such a flexible topic, there’s not just one level to consider but more worlds that are deeply hidden behind manufactured contemporary culture. Pieces that are displayed in refined institutions like galleries or museums often carry a certain prestige, but does that alone define greatness? Or is it the artist's ability to resonate with people across time and space, to speak to something innately human? What makes an artist “great” is their ability to push boundaries, and learning how to be okay with being vulnerable and uncomfortable outside their comfort zone. How can one keep on unlocking new levels if they are constricted to one form of singular reality? These great artists have mastered the practice of pushing past the staticness that stagnant art puts out, finding a zone of emotional equilibrium in order to enter a flow state that allows them to explore a new daunting world with ease. It is nerve wracking with the potential idea of failing, but that concept of failure is only a tool to realize what an artist really intends to seek, and that's the rhythm of finding drive and passion for contemporary works of experimental art such as Mel Chin’s *Revival Field*. Through Chin’s experimentation, willingness to fail, and vulnerability, he was able to establish himself as a key figure in contemporary environmental art, leaving a lasting legacy that still continues to spark conversations about the intersection of art and ecology.

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