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ARTICLE

NODE "MATERIOLOGY AND VARIANTOLOGY: INVITATION TO DIALOGUE"

Summoning the ghosts of the AnArchive

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Recommended citation

Abstract

Memorial Matter is an artistic research project that shows the strong material condition of our digital culture which is based on millennia-old layers of *deep time*, containing the writing of terrestrial life. It is this geological foundation that the archive of our collective memory is inscribed in, from ancient to contemporary data technologies. In the context of the Human-Machine Fellowship 2023 at the Academy of the Arts in Berlin, this investigation combines analogue film and digital technology, utilizing a found archive of 16 mm film from the Cold War era. The film images reveal the use of industrial technology to extract natural resources through mining and automatization as a vision and goal of progress. Using artificial neural networks and biomaterials, the progressive imaginaries of the 20th century were interpreted by an AI and transformed into 3D Sculptures out of leftovers from the carbon era.

Keywords

AnArchive; speculation; artistic research; neural networks; film archive; 3D

Invocando los fantasmas del AnArchivo

Resumen

Memorial Matter *es un proyecto de investigación artística que muestra la sólida condición material de nuestra cultura digital, que se basa en milenios de capas de* tiempo profundo*, que contienen la escritura de la vida terrestre. Es la base geológica en la que está inscrito el archivo de nuestra memoria colectiva, desde tecnologías de datos antiguas hasta modernas. En el contexto de la Human-Machine Fellowship 2023 en la Academia de las Artes de Berlín, esta investigación combina película analógica y tecnología digital, utilizando un archivo encontrado de película de 16 mm de la época de la Guerra Fría. Las imágenes de las películas revelan el uso de la tecnología industrial para extraer recursos naturales a través de la minería y la automatización como una visión y objetivo de progreso. Utilizando redes neuronales*

artificiales y biomateriales, los imaginarios progresivos del siglo xx fueron interpretados por una IA y transformados en esculturas 3D a partir de restos de la era del carbono.

Palabras clave

AnArchivo; especulación; investigación artística; redes neuronales; archivo fílmico; 3D

1. An-archic AnArchives as ecologies

The notion of anArchive, as transmitted by Prof. Siegfried Zielinski, critically questions the hegemony of a superior system of order that establishes hierarchies between different sources, media and narratives (Zielinski 2015). Departing from Zielinski's insistence on the peripheral and questioning Eurocentric dominance, my artistic practice embraces waste, myths, intuition, found objects, speculation and any other materiality that doesn't fit into a canonical system of data and facts. These elements are necessary for the balanced ecology of a counter archive, with none having more authority than the others. The living anArchive created aims neither to be completed nor to claim leadership; it will remain porous and open to mutation, constantly interacting with its surroundings. In alignment with Ann Cvetkovich's notion of "unorthodox archives", memory becomes a valuable historical resource in the absence of documentation. Extractivism hides its own violence and decadence through official histories that erase and marginalize unofficial narratives and their ways of surviving (Cvetkovich 2003). The 200 forgotten film rolls from the found film archive are brought back to reframe the story of progress of the 20th century including the notion of ecocide.

As described in the book *War-torn Ecologies, An-Archic Fragments* (Yildirim 2023) the an-archic refuses to take for granted the facts produced by colonial apparatuses and their archival and supremacist myths of origin. Following a logic of plurality and wealth of variants, this project counters the hegemonic official archive with its intentional gaps and imperial narratives by embracing a methodology of montage that delivers an-archivic fragments of resisting local ecologies. This montage means an *undisciplinary* (Munguía 2023, 50) exchange between the affective, the ecological and the aesthetical, as well as between different disciplines and genres. It means to be led by intuition and be open to the unpredictable, to be situated within a territory and listen to it.

2. Materializing the archive - undisciplinary arts of living on a damaged planet

For the Human-Machine Fellowship 2023 at the Academy of the Arts in Berlin (AdK) I worked on a found archive of 16 mm film from the Cold War era. The film images reveal the use of industrial technology to extract natural resources through mining and automatization as a vision and goal of progress. Using artificial neural networks and biomaterials, the progressive imaginaries of the 20th century were interpreted by an AI and transformed into 3D Sculptures out of leftovers from the carbon era.

This artistic investigation establishes strategies and tools through the immersion and interaction *in situ* within a two-month artist residency at the E-Werk Luckenwalde. With the new materialist approach of an affective ecology, I generate creative, response-able (Haraway 2016) and playful encounters between me and the diverse agents of the territory I am situated in (Haraway 1988). It is a survival strategy and a search for possible ways of co-cultivation within the contaminated ruins of the so-called Anthropocene (Bennet 2010). Located 50 km south of Berlin in Brandenburg, a former industrial site of the GDR, the E-Werk (German language abbr. for power plant) looks just like the factories and plants from the film archive. It felt like I was living inside the archive itself. My work in these two months also seemed to arise directly from the archive as the images of factories and mines materialized again in post-industrial Luckenwalde. Being in this environment inspired me to work with coal and ash for the materialization of the speculative images created together with artificial neural networks. Ash is the byproduct of the energy production of the E-Werk and the waste material par excellence of the past century and the project of industrialization, a symbol of the decadence of the so-called Western World. Furthermore, it is everywhere and of no market value, a toxic residue of our civilization that creeps through textiles and nostrils, leaving stains of gray on skin, mucosa and lungs. In my artistic practice I encounter the toxic leftovers of modernity's project of progress as "arts of living on a damaged planet" (Tsing 2017). To visualize and work with the leftovers of the extractivist model of progress also means to resist its anthropocentric, racist and colonial narratives.
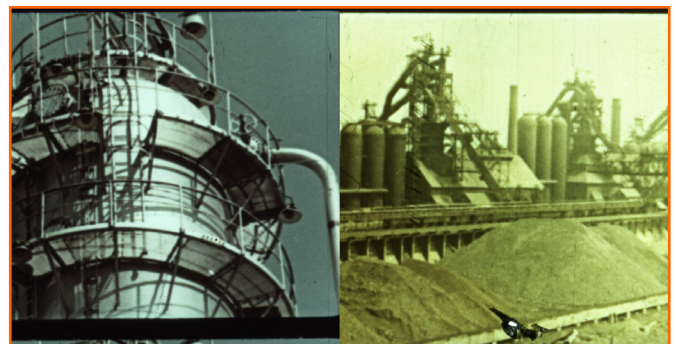

Figure 1. Caption: Stills of the original 16 mm film archive

Source: Tin Wilke + Laura Fong Prosper, Found Footage

First, I trained a StyleGAN neural network with stills from the film archive. AI is a product of the so-called Anthropocene that extracts human and natural resources through massive sucking of energy and big data, which also makes it interesting to work with as a speculative tool in the context of this artistic research. As its very product, AI facilitates insights into the functioning patterns of our technocrat society. I see AI as a magnifying lens and digital condensate of Westernized societies, as our digital collective memory that was trained with our data (including our biases). Therefore, I created a data set made out of the film stills that were fed to the neural network for a few weeks. Out of the morphological patterns recognized by the AI, it generated new images through a statistical process based on matching similarities between the film stills. I interpret these artificial creations as a visual condensate of our collective memory within the (post)Industrial Age with which we can project into possible futures.

Figure 2. Caption: StyleGan creation overlaid on top of original film footage
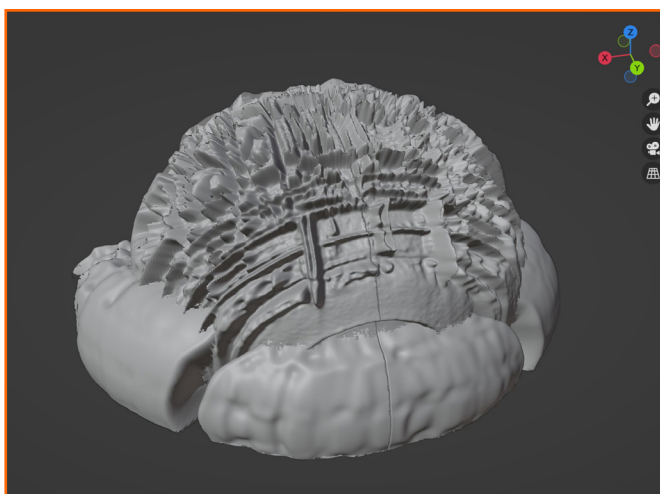Source: Tin Wilke

Figure 3. The two-dimensional images speculated by the AI transformed into a 3D model using Blender
Source: Tin Wilke

I shifted the digital imaginary to rematerialization by transferring the resulting images into voluminous 3D models to print them into sculptures out of ash that the E-Werk provided me. I worked with a 3D printer at the local Makerspace that is especially engineered to print with clay instead of the common plastic filaments. This printer enables the possibility to experiment with different materials as long as they have similar properties to clay. After challenging days of finding the right mixture and texture to create structures statically stable enough, I created a recipe with xanthan gum and ash from the power plant that I call *ashthan*. The handling of the machine with the experimental material is very difficult as the nozzle permanently clogs due to the crumbs of ash. If applied with a tiny bit too much air pressure the whole mix stiffens immediately and can no longer be used. Every day, after sifting and mixing the ash and filling the 5l tank of the printer, I looked in the mirror and saw the face of the soot-smeared coal miner from the film archive; for a short time, I was in his skin.

It was particularly important that the critique of growth in terms of content was also reflected in the materiality of the work and its production process. The encounter with the material was central to the artistic process. I had to learn to let go of control and to immerse myself into the rhythm of the materials I was working with – a *materiology* (Zielinski 2019) of tacit sensory practice –, not being able to speed up or force things. By experimenting with ash and biodegradable materials, I found myself in the space of childlike exploration and openness towards the process in which I could decenter myself, the final outcome and its presentation to some degree. At times it meant dealing with a lot of frustration. These are experiments that question our production methods and routines and call for a greater awareness of materials and working methods. The final installation was built in collaboration with the artist Laura Fong Prosper and shown in the exhibition *Broken Machines and Wild Imaginaries* at AdK Berlin in 2023, curated by Clara Herrman as part of the *AI-Anarchies program*.

Figure 4. Mixing of ashtan and filling the tank of the 3D printer
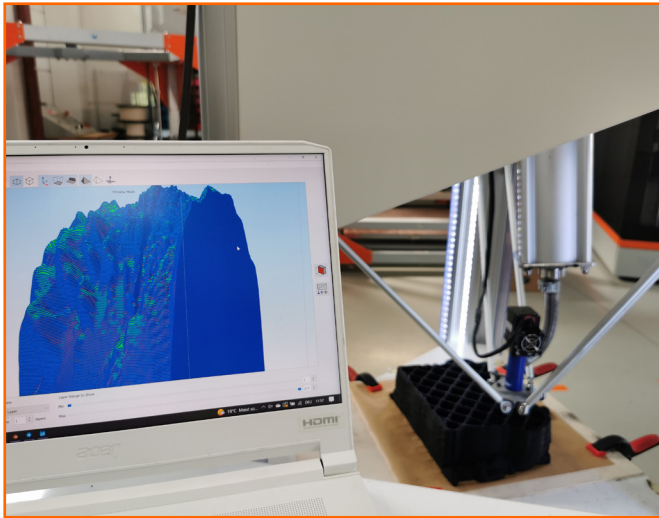Source: Tin Wilke

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Figure 5. Printing of the 3D model with the Delta WASP 40100 Clay 3D Printer at Gewerbehof Luckenwalde
Source: Tin Wilke

Conclusion

Memorial Matter deals with the enigmatic crossovers between earth materials and intertwined temporalities. Summoning ghosts through our society's waste material, it creates a cycle loop of the deep time of materialities and delves into the layers of memory inscribed within Earth's crust.

This investigation challenges the hegemonic narratives of progress and development by foregrounding the often-erased histories of exploitation, colonization and environmental degradation. The collaboration with AI to reinterpret and re-materialize archival footage into 3D sculptures of ash – an emblem of industrial decay – serves as a poignant commentary on the cyclical nature of technological advancement and its environmental impact, revealing the extractivist mindset but also reclaiming and repurposing waste as a resource.

The unfolding of the analogue archive into ash-based sculptures, emerging from the intersection of digital tools, waste and biodegradable matter, embodies a speculative archaeology that gestures towards possible futures born from the ruins of the Anthropocene. As a form of *prospective archaeology* (Zielinski 2019), they project possible speculations of future patterns while visually referring to ancient formations, resembling coral reefs and archaic ruins of temples. This interrelation between machines and matter raises the issue of response-ability and wordling of hybrid realities between digital control systems and the nervous, sensitive (and mostly contaminated) matter of the real that Siegfried Zielinski refers to as a mode of *expanded materiology* (Zielinski 2019).

The sculptures embody this living and mutational AnArchive that showcases the interconnection between industrialization, waste and technology as multispecies actualities and afterlives of the violent, accelerated and imperial technological race. The ash-based formations refer to a future as distant as the past of the minerals from which technological "progress" is constructed. The irreparable is not a dead end although it is a cruel reality of living in times of extinction, extermination and partial recuperation (Yildirim 2023; Haraway 2016). Shifting the digital imaginary to the rematerialization of a new possible space-time emerging from the ruins of the Anthropocene, this work summons the creation of fictional narratives about manifold futures of coexistence between humans and non-humans.
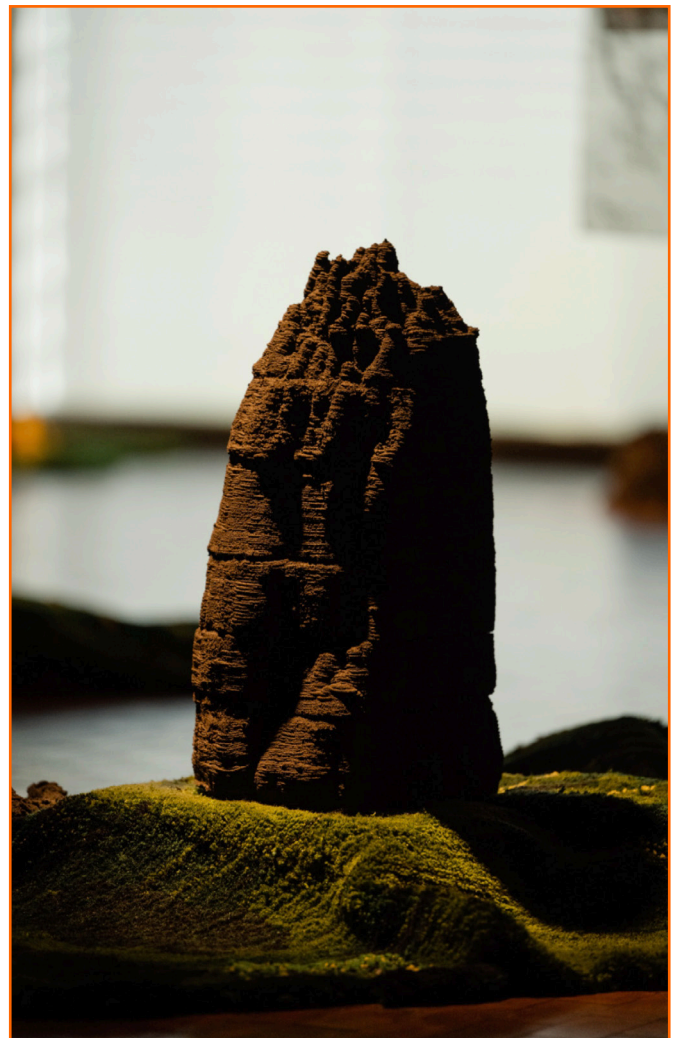

Figure 6. Installation view at Academy of the Arts Hanseatenweg Berlin (June 2023)
Source: photo by Peter Oliver Wolf

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Figure 7. Installation view of 3D printed formations at *Projektraum Coswig* (May 2024)
Source: photo by Gabriela Gioia

Zielinski, Siegfried. *Prospective Archaeologies – Traveling through Deep Time of the Media – From the Past into the Future*. Beijing University (School of Fine Arts) Media Archaeologies conference (2019, December 2-3).

Related links

Exhibition "Broken Machines and Wild Imaginaries" as part of the AI Anarchies program at Academy of the Arts Berlin (02-06-2023 to 09-07-2023): https://aianarchies.net/broken-machines-and-wild-imaginings

E-Werk Luckenwalde artist-in-residence-program: https://www.kunststrom.com/laura-fong-prosper-tin-wilke-de.html

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CV

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Tin Wilke is an undisciplinary artist and filmmaker from East Berlin who explores the construction of collective memory, the politics of archiving, dissident practices and speculative narratives. Working mainly collaboratively at the intersection of digital new media, organic material and found footage within installations, gatherings, stages and experimental film, Wilke's hybrid practice questions the binary and exploitative modes of production within patriarchal structures. Wilke's formation is strongly influenced by the thinking and the practice of the South, where Wilke studied the post-graduate Theatre with New Media and Interactivity at the Universidad Nacional de las Artes (UNA) in Buenos Aires. In Berlin, they graduated from Art and Media at the Berlin University of the Arts (UdK). Wilke forms part of the queer performance collective CC_Lab and is a board member of the associations for social-ecological change (VSOW e.V.), the moving media e.V. as well as a member of the Mkv Berlin Media Art Association (medienkunst e.V.).