

# Window Water $\{object\}$ Moving (convolutional mnemonics)

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## Abstract

The paper presents and discusses aspects of the installation “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) experimenting with Convolutional Neural Networks (CNNs) with ml5.js for object classification to critically address ectogenesis concerning Chronopolitics and related temporal aesthetics in the evolution of Government views, policies and program measures concerning population size and growth. The works address the necropolitical use of humans' bodies, which can foster economic growth in ways that directly and dramatically impact our tentative friendly permanence on Planet Earth. As if an appropriated and deconstructed hookah could be a ‘metaphorical ectogenous chamber’ — the relational object (plastic bag resembling a biobag for ectogenesis, atomizer, USB camera/P5JS ml5 for object classification, two hookah flexible hoses tubing and handle) — invites the audience to interfere in the mist pattern by ‘blowing through the hoses’ and consequently influencing in the guessing of objects by the machine learning library. The ml5 library is so, guessing ‘objects’ from fluid mist patterns as we guess ‘shapes’ by observing the clouds. The work explores a possible ‘generative convolutional aesthetics’ of ‘objects-as-babies-as-objects’ — as if the only possible ‘babies-outcomes’ our accelerated hyper-mediated algorithmic society want to produce are ‘objects’ -- namable shapes that can be identified by convolutional neural networks’ based libraries. The aesthetics of the trans object and its ‘functioning’ — blowing through tubes and interfering in the mist fluid and mutable patterns, invites us to navigate animistic references to tubes — flutes, shamanic pipes, humans’ respiratory and reproductive organs, and the generative power attributed to them in the Amazonian Tucano people’s cosmology, from the perspective brought by the anthropologist Stephen Hugh-Jones in his “Thinking through Tubes: Flowing H/air and Synaesthesia”.

## Keywords

Ectogenesis, Chronopolitics, Necropolitics, Algorithmic Society, Data-driven Algorithmic Systems, Technocapitalism, Technoetic Aesthetics, Convolutional Neural Networks (CNN), Machine Learning (ML) for object detections and classification, Mnemonics, Generative convolutional aesthetics, Convolutional Mnemonics, Speculative Reproduction, Generative power attributed to tubes, Amazonian Tucano people’s cosmology.

## Introduction: The Politics of When

It is 2023 and we catatonically observed the very last moments before the announced ‘AI surrogacy’ [1] era in which artificial intelligence entangled with robotics and genetic engineering can serve as surrogates for the human workforce — from digital nomads or digital slaves to actual assembling lines workers in China, India, Mexico, in the United States — zombified by the well refined ultimate

configuration of a patriarchic-technocapitalism designed to feed consumers that perform the ‘ordering online and receiving at home’ daily rituals accessing by induced scrolling, neverending lists of ‘products’. As the main characters in this dystopian destiny, hardware, and software are designed to fulfill still-humans’ desires — both vital and superfluous algorithmically engendered needs. The physical body is peripheral but welcomed as an easy-to-manipulate abstract entity that follows precisely the tasks of ‘how and when’ producing-and-consuming the goods.

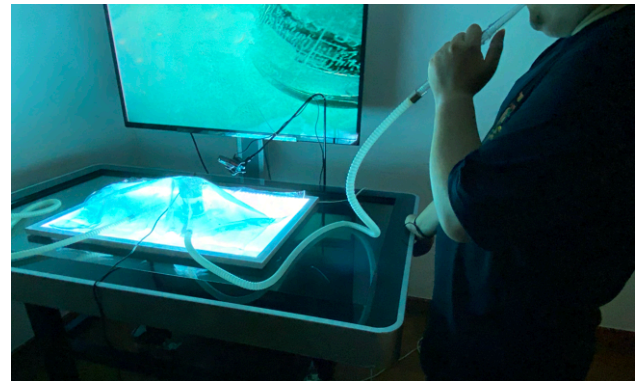


Figure 1. “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) — audience and transobject (plastic bag resembling a biobag for ectogenesis, atomizer, USB camera/P5JS ml5 for object classification, two hookah flexible hoses tubing and handle). Image by the author.

As an invitation to meditate on critical utopian aspects of “temporal aesthetics” related to these issues, the interactive installation “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) questions intentions and the driven forces behind top-down policies related to population growth that partner with necro and rational, instrumental, linear and causal chronopolitics, interfering in the regulation, synchronization, and allocation of individuals’ everyday-time and lifetime, preventing us from navigating temporality as “all-time simultaneously present in a place” encapsulated by the concept “Everywhen”.

```
57 if (confidence > 0.5) {  
58   console.log(`Detected:  
   ${objectLabel} (Confidence:  
   ${confidence})`);
```

Figure 2. Excerpt from P5JS sketch using ml5 library image classifier ‘MobileNet’ [19]. Image by the author.

## 三孩政策: The Three-child Policy

When finally alienated from the time of gestation and driven to a datafication of human successive generations, we will be ultimately governed by the algorithms-time, definitely expelling human beings from natural rhythms [2]. This machine-time becomes a 'standard that can be applied at any time and in any place' [2] as an interchangeable unit with the power to separate that which is developed from that which is not — all conducted by the rhythms of datafication systems. These systems, by requiring timestamping, can "establish when the data has been produced, which in turn is fundamental for machine learning and the coordination of different functions within a network." [3] Data-driven algorithmic systems [4] — here talking about machine learning or artificial intelligence (since it is quite impossible to escape the use of the term) —, oriented or trained to corroborate with sociopolitical dynamics, same as for producing goods nowadays, can lead to a future 'in which AI-driven ectogenesis' of the workforce, by having the highest processing speed, high performance, and productive capacity, can make a billion-dollar difference and play a central role in reframing humanity.

In this scenario, it will be essential to consider aspects of 'relational accountability' contextualized with an algorithmic society, as brought by the political scientist Mark Bovens [5] to access the harmful consequences of data-driven algorithmic systems — "mechanisms that address both whom to hold accountable and how to hold them accountable for the legally cognizable harms of injury" [4], including the not-yet legally-cognizable harms increasingly associated with these systems, such as manipulative practices, automation-driven discrimination, and autonomy losses due to manipulation.

Relationality is a theory that underscores how social connectedness, through mechanisms of empathy, fosters collective action in noncentralized modes of network governance. When in 2001 Shaw Wilson [6] introduced the concept of 'relational accountability' he was advocating for an honest accounting of Indigenous research concerning the people their research refers to and therefore establishes a relationship with, contributing to fostering research that is trustworthy and has integrity.

When we advocate for the use of relational accountability within the context of an algorithmic society it means we are all vulnerable to the lack of transparency in the use of data-driven algorithmic systems to coordinate all rhythms of human existence on Earth including the generative rhythms of conception, gestation (pregnancy) and birth.

The hidden danger when claiming 'relational accountability' with the affairs mentioned above is that, as pointed by Bovens [5], accountability itself has become "[...] one of those golden concepts that no one can be against' and it has been increasingly used in political discourse since it conveys an image of transparency and trustworthiness but, at the same time, the evocative powers of the very concept make it extremely elusive, meaning many different things to different people, in dissimilar and sometimes contrasting contexts.

China's National Bureau of Statistics reported the population dropped by 850,000 people in 2022 [7], a fall coming in the wake of a birth rate that has been steadily declining since the implementation of the one-child policy in 1980 and that has continued to fall even though the policy was abolished in 2015. In 2021, China formally revised its laws to allow couples to have up to three children, to boost the birth rate — the Three-child policy (Chinese: 三孩政策; pinyin: Sānhái Zhèngcè). China's population falling for the first time in 60 years, with a birth rate hitting a record low of 6.77 births per 1,000 people [8].

Kelly Ng to BBC News [8] on January 2023 reported that, according to Stuart Gietel-Basten, a public policy professor at The Hong Kong University of Science and Technology, just boosting fertility is not going to improve productivity or increase domestic consumption in the medium term, that means, as mentioned by Kelly Ng [8] such policies encouraging childbirth are not accompanied by efforts to ease the burden of childcare, that could include help for working mothers or easy access to education.

In contemporary China, top-down policy initiatives fail to account for a society whose attitudes towards women have changed little over time. As in the unpublished science fiction book by Liu Cixin "China 2185" [9], the "Three-child policy" manifests "Chronopolitics" in a particular way, expressing interest and endeavor that intersect with the pragmatics, production, and perpetual maintenance of particular temporalities.

According to Hua Li [10] writing about the political imagination in Liu Cixin's *Critical Utopia*, the emergence of utopian impulses in China reverberates what happened in the 1960s and 1970s in the West, quoting Fredric Jameson to suggest that various utopian visions that emerged reveal "the development of a whole range of properly spatial Utopias in which the transformation of social relations and political institutions is projected onto the vision of place and landscape, including the human body"[1].

Some utopias depict and critically address the phenomenon of the perpetuation of a vision of successful world economies depending on the mass production of bodies to sustain the optimal production of goods, trading, advertising, and consumption. Visions that are testimonies of the industrial age-driven forces supremacy in influencing an attachment to a fixed understanding of time and place, and even of 'humanity's place on Earth's morphogenetic dynamics as something comparable to the very 'functional logic' of an algorithm. Liu Cixin's critical utopian novel [9], written in 1989 against the social and political background of China in the 1980s, foresees important issues in post-socialist China such as the consequences of the aging of the population, the subsequent gerontocracy, and the impact of digital information resources and the Internet on China's political system.

According to Jessica Imbach [9] Liu Cixin’s debut novel despite never published, is “[...] arguably one of Liu’s most notorious works, because of its central premise: the digital resurrection of Mao Zedong.” Imbach highlights that, Cixin’s novel was only completed in 1989, two months before the suppression of the Tiananmen protests in Beijing.



Figure 3. “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) — *transobject* (plastic bag resembling a biobag for ectogenesis, atomizer, USB camera/P5JS ml5 for object classification, two hookah flexible hoses tubing and handle). Image by the author.

In “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023) — if the interactive installation can be read as a ‘critical utopia’ — the apocalyptic abstraction that pushes against planetary sustainable ecologies is that the babies, or the babies’ production boost that can be potentially improved by the use of ‘ectogenesis’, is not exactly wanted as an improvement in the actual production of babies -- humans re-production, but as means to produce more objects, means to be able to trade more, and to consume more ‘babies-as-objects-as-consumers’.

### Convolutional Mnemonics

Exploring mnemonic aspects in our relation to ‘human-machine’ made objects, from Aby Warburg’s unfinished attempt to map the pathways that give art history and cosmography their pathos-laden meanings to explorations of mnemonic relations between objects and events in time, related to the human body, the work “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023) proposes suspending time. Holding all together past present and future — in a place-time (everywhen) in where-when humans themselves are feeding systems that turn human bodies into obsolete events in time. A suspended time when-where bodies are no longer ‘an end in itself’ but bodies ‘as means to produce objects-as-goods-as-objetes’ — all recognizable, detectable by trained algorithms via machine learning strategies that can help improve design, production, advertising, trading, selling, consumption.

Aby Warburg’s vision understands the evolution of culture toward the age of reason as marked in the same measure as the tangible, coarse texture of life fades into mathematical abstraction. In Warburg, the key notion of ‘determination of contour or scope’ (*Umfangbestimmung*), according to Christopher D. Johnson [12] is tied directly to mathematical thinking’s development.

Johnson [13] explains that, as in the Mnemosyne atlas program, to compass or sketch the contour of a thing is to find the necessary means of mediating via abstract figures between self and “infinity”. The correlation intended with “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023) is to bridge notions from Art Theory and History and jump into the post-industrialized algorithmic society’s addiction to objects, as a mythology of ‘industrial programs’ that will be more and more mediated by AI (Artificial Intelligence). The installation — getting as close as possible to a sci-fi creative endeavor — envisions a future in which the human mind and perception, entangled with Machine Learning strategies, cooperate in exponentiating our addiction to “the cultivation of visual symbols”, eventually producing “a hyper-systematic linguistic mythology” — a movement identified in humans-machines’ coupled behavior that resembles one of the chief claims of Ernest Cassirer’s theory of symbolic forms [14]. As pointed out by Adam Kirsch [15], one of Cassirer’s main claims was that, even in a scientific age, humans are inclined toward magical, mystical thinking.

Kirsch himself invites to explore comparatively alternative futures for humanity, beyond the prevalent AI-dominated perspective. In his recently published “The Revolt Against Humanity: Imagining a Future Without Us” [16] Kirsch explores popular culture, science, philosophy, literature, and other fields to distinguish between two schools of thought — the transhumanist view that genetic engineering and artificial intelligence will produce new life forms superior to humans, and the anthropocentric antihumanism asserts that humanity is doomed due to climate change and that we should celebrate our extinction.

Cassirer’s three-volume *Philosophy of Symbolic Forms* (1923–1929), regroupes what may be regarded as a cultural philosophy of language, mythical thought, and science. Despite Cassirer himself misses a discussion of the economy, as quoted by Georg D. Blind and Raji Steineck from The University of Zurich [17], authors such as Klattehoff suggest understanding money as a symbol and, Miklautz’s analysis of the sphere of commodities as a symbolic form illustrate the potential contribution of the *Philosophy of Symbolic Forms* to economic thought, considering that economic science may investigate the world beyond utility functions. If we see the production of babies — the production of the working force and consumers — as an integral aspect of the world economy, then it makes total sense to explore it from the perspective of symbolic forms since the generative impulses that drive humanity to invest in the production of babies-as-objects is as investment ‘beyond function’ — unless if the ‘function’ is ‘to conduct humanity to its extinction.

As in Warburg Mnemosyne's panels [18] — the Convolutional Neural Networks (CNNs) with ml5.js for object classification used in “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023) illustrates when and how a metaphor simultaneously wins and loses a connection with “lifeworld.” The wanted babies by policymakers are object producers and object consumers — the objects are the ultimate goal — not the babies.

In the installation, the baby in the fictional ecto-womb is “replaced” by the fluid evanescent patterns of the mist produced by a mist maker (atomizer). Using a webcam positioned above the ‘ecto-bag’, the transient shapes produced by the mist (metaforms) are captured live and analyzed by the ml5 library image classifier ‘MobileNet’ [19]. The intention of infusing the ‘ecto-bag’ interior with ‘life’ through the act of ‘blowing through a tube (hookah flexible hoses tubing and handle) (figure 1) represents a tentative mythology of the never-ending manufacturing of goods — what seems to be the ultimate goal of a parcel of humanity that is driven by the very algorithms it is training.

Neural networks can be used to recognize the content of images and ml5.imageClassifier() [19] is a method to create an object that classifies an image using a pre-trained model. The ml5 library accesses a pre-trained model from the cloud and what the algorithm labels an image is entirely dependent on that training data -- what is included, excluded, and how those images are labeled or mislabeled.

## Window Water $\{object\}$ Moving

Writing about “The Lost Films” (1996), Stan Brakhage [20] considers they share a quality that supports the term “lost” in more than one sense, which, from his perspective, determines their collective title as ephemerality that he sees as ‘extraordinarily appropriate’ to the term “films” that is “[...] a quality which seems, in a variety of ways, given over to the unconscious, elusive to the distinguishments of logical conscious appreciation.” [20]

On the occasion Brakhage had the opportunity to work on the ‘lost’ film, he re-read Sigmund Freud's ‘Interpretation of Dreams’ [21], “concentrating particularly on those passages which establish that the dream content is most often prompted by the daily sights and incidents little noticed by the prospective dreamer.” Brakhage highlighted that, from Freud's perspective, in the daily scheme of continuous sightings, that which is “overlooked” appears more capable of triggering the unconscious and acting as a trigger for the dream release of suppressed memories. These memories then, in Freud's view, appear in disguises that, when recognized, yield not only suppressed experiences but also symbolic reference to the source of such repression.

Brakhage mentions that the Greek word “cathexis” used by Freud seems to suggest “holding,” or “investment,” at the moments of neurological synapse [20], but it also suggests “haunt”. Cathexis (German Besetzung), as highlighted by Talcott Parsons when writing about Freud's ‘The Interpretation of Dreams’ [22] refers to the endowment of an object with psychic energy.

Freud's term for the paths by which energy is transmitted from one object to another is ‘association’ [22] — which is quite different from the processes of logical inference in conscious thinking and reasoning that connect objects with primarily affective meanings according to their symbolic properties. Brakhage considers that the capacity to remember any imagery from “[...] the flowing-river experience of motion pictures is exactly dependent upon one's capacity to name what one has seen,” [20] as, as an example, a picture, a collection of namable shapes (a composition).

Paul Harrill [23], writing about his personal relation to Stan Brakhage's production, specifically focusing on ‘Window Water Baby Moving’ — a twelve-minute silent film from 1959, writes that — “[...] from early “trance” movies to the films that he painstakingly hand-painted, frame-by-frame, at the end of his life. The centerpiece was Window Water Baby Moving.” The film is a diary of Jane, Brakhage's wife, giving birth to their first child.

Harrill was screening Brakhage's films in the winter of 2014 when teaching a course in the history of experimental film at the University of Tennessee and, one of his students, a girl after the screening of ‘Window Water Baby Moving’ (1959) shared that she was shocked, that for her entire life, “[...] she had been sheltered from ever seeing such a basic process. The human process.” [23] She expressed, as Harrill places, “very warmly about how loving a portrait it was, despite its graphic, almost scientific nature.” [23]

The intended connection here between Brakhage's ‘Window Water Baby Moving’ (1959), as there is the move in the direction of revisiting it to make sense of the installation “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024), is the impulse of exploring “the human process” in its ultimate entanglement with the algorithmic processes when we experience transferring to the machines ‘our perceptron’ and the ability to navigate the rational and the symbolic, until the point we can ‘exclude women's bodies’ from the very process of ‘pregnancy and birth’, transplanting the mythology of ‘production and reproduction’ to the machine.

```
// Initialize the Image Classifier method with MobileNet
const classifier = ml5.imageClassifier('MobileNet', modelLoaded);

// When the model is loaded
function modelLoaded() {
  console.log('Model Loaded!');
}

// Make a prediction with a selected image
classifier.classify(document.getElementById('image'), (err, results) => {
  console.log(results);
});
```

Figure 4. Neural networks can be used to recognize the content of images and ml5.imageClassifier() [19] is a method to create an object that classifies an image using a pre-trained model. Image source: <https://learn.ml5js.org/#/reference/image-classifier>

The installation “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) consists of a plastic bag resembling a biobag for ectogenesis (that originally consisted of a sealed bag to contain the subject, a ‘pump-less oxygenator circuit’, and umbilical cord access) placed on the top of an ‘inspection table’ with LED backlight having, inside of the bag, an atomizer producing mist patterns that spread in the plastic bag interior being live-captured by a USB camera that is placed on the top of the illuminated inspection table, having the captured images processed as input by P5JS code using Convolutional Neural Networks (CNNs) for ml5 (image classifier library ‘MobileNet’).

The installation ‘presence in the exhibition space’ places an invitation to the audience (one person at a time or in couples) to blow air/breath through the two hookah hoses (flexible hose tubing and handle) allowing to interfere in the mist pattern generation and consequently in the guessing of objects driven by the machine learning library.

The ml5 library [19] for object classification identifies transient shapes in the mist patterns produced by the atomizer that change according to the ‘blowing’ through the hookah flexible hoses. It is a trained ‘mathematical-electrical entity’ that, this time, is navigating ‘symbolic forms’ infused by ‘vital energy’ emanating from the human body, despite being trained to identify ‘c industrialized objects’.

### life-giving and life-taking ecologies-as-cosmologies

By placing an ‘altered hookah’ as the central object in the installation, “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023) invites to navigate animistic references to tubes — flutes, shamanic pipes, humans’ respiratory and reproductive organs, and the generative power attributed to them in the Amazonian Tucano people’s cosmology from the perspective brought by the anthropologist Stephen Hugh-Jones in his “Thinking through Tubes: Flowing H/air and Synaesthesia” [24]

Invites to meditate on the isolated tubular form as a vehicle for various life-giving and life-taking cosmic processes in the Amazonian Tucano people’s cosmology — bridging and expanding the perspective brought by his wife Christine Hugh-Jones’s [25] when proposing, in 1979, an analysis of the congruence between processes occurring in the human body, house, and cosmos and his own [26] analysis of Yuruparí ritual and mythology.

In the session of the article in which Hugh-Jones [24] discusses “Galen and Aristotle in Northwest Amazonia” bridging with considerations on ‘The One-Sex body’, considering the effort could help recognize similar ideas that can be deduced from Northwest Amazonian mythology and ritual practices, the anthropologist [24] focuses in exploring how anatomy and physiology serve to exemplify that the body is at once single and multiple, a tube and many tubes and that the processes and products of life are to be understood as interconnected flows from Lowland South America native people’s myths.

Not expecting to find exact parallels, he believes that some Northwest Amazonian people’s myths can supply good evidence that something akin to this European one-sex model also applies to them. Navigating the stories from Rio Negro Mythology, Hugh-Jones [24] observes that they describe an initial state where there is no sex and

“Deities are gendered but have identical bodies that lack genitals. They create other beings through their mouths, insemination being achieved either by blowing tobacco smoke from penis-like cigars into womb-like gourds or by ingesting viscous, semen-like fruit juice. Gestation takes place in stomachs and gourds, and birth is by vomiting and regurgitation. Only later do these deities receive distinctive sexual organs, first in the form of two artifacts, the flute and cigar-holder, and then in the flesh.” [24]

Hugh-Jones [24] quotes the Yuruparí myth incident where the men recuperate their flutes from the women, considering it gives a clear indication that the “[...] female vagina and male flute—read “penis”—are inverted/everted lower-body homologues.” And that the female throat and male flute would be their inverted/everted upper-body counterparts, from his observation.

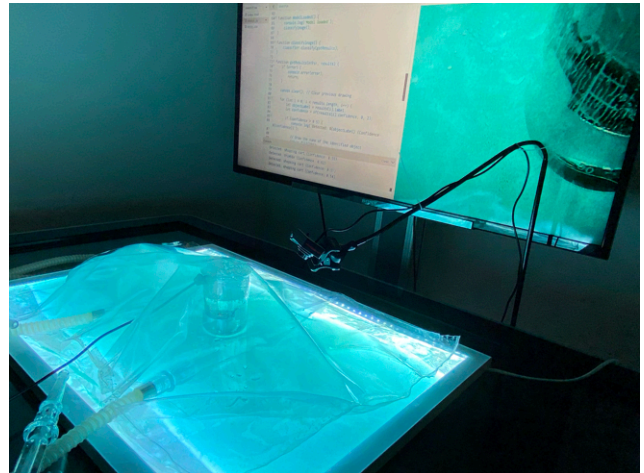


Figure 5. “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) — *transobject* (plastic bag resembling a biobag for ectogenesis, atomizer, USB camera/P5JS ml5 for object classification, two hookah flexible hoses tubing and handle). Image by the author.

The analogy to this consideration on Northwest Amazonian people’s myths transmuted in the intended configuration of the ‘hookah converted into a fictional ecto-womb’(and so a ‘trans object’ from the understanding of the 50s/60s Brazilian neo-concrete art Avanguard) places the audience in the position of revision ancient mythologies transplanted to ‘designed’ (by the artist) ‘algorithmic-era’ situation that invites to meditate on ‘generativeness’ — life-giving and life-taking processes that are simultaneously cosmological and ecological.

Whether the “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) can be read or taken as an “Object, Non-Object, Transobject, Relational Object” [27], it places a conversation on the transference to the machines of natural process that once where part of past civilizations and cultures’ cosmologies and mythologies [28].

## Relational Aesthetics

Entangled with the effort in treating her broken wrist from an automobile accident in 1966, the Brazilian artist Lygia Clark created her first sensory object — an air-filled bag with a stone on it that is placed in direct contact with the skin, awakening awareness of the body [29] and emphasizing the routine with a simple breathing motion. Clark went on to create many other sensory objects, mediators — relational objects —, that were used in different activities to recover a total relationship with and awareness of our body. From this point on, the various relational objects Clark created out of everyday elements [29] were intended to be used in the artist's suggested actions to provoke a heightened awareness of one's own body.

“Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) encapsulates similar intentions as a relational object but that intends to entangle us with the machinic or, above this, to tell us about our progressive entanglements with the machines and artificial intelligence and potential artificial consciousness.

The work invites to consider that relational propositions [30] in the arts that viscerally involve the body in an experience of togetherness — considering eliminating the boundaries between body and object, self and other — in efforts that recall the vision of Lygia Clark in hers 'Caesarean' (1968) [31] or in the 'Biological Architecture: Birth' (1969) [32] -- can help to enact a biological consciousness of the body and the biological belonging in humans of the algorithmic era.

The hope is that such propositions can invite, even if from a fictional perspective, by enfacing our progressive connection with the artificial, to consider re-humanizing processes of birth, giving birth, that have been stolen from us by chrono and necropolitics that are ultimately leading to warfare. The “Fantasmatics of the body” [33] can awaken hidden or suppressed temporalities of the body that connect us to ‘ancestral deep place and deep time’, potentially re-waving and reframing time-perception-creative expression within the context of rapidly advancing technologies, cultural, climate and ecological changes.

A version of the installation was on show at the ‘Xenozombies’ event at the cultural organization Polytechno in Corfu, Greece as an outcome of the TTTFellows 2024 including, this version, a performance in collaboration with Dalila Honorato placing an open dialogue with the live multimedia performance staged by Robert Lisek and Adam Zeretsky. The second edition of the TTTFellows residency inspired by the thematics of the conference Taboo - Transgression - Transcendence in Art & Science, welcomed one scientist and one artist to collaborate in developing an Art and Science proposal related to informal art & biology training for artists, philosophers, and social theorists on the theme of ‘fertilization.’

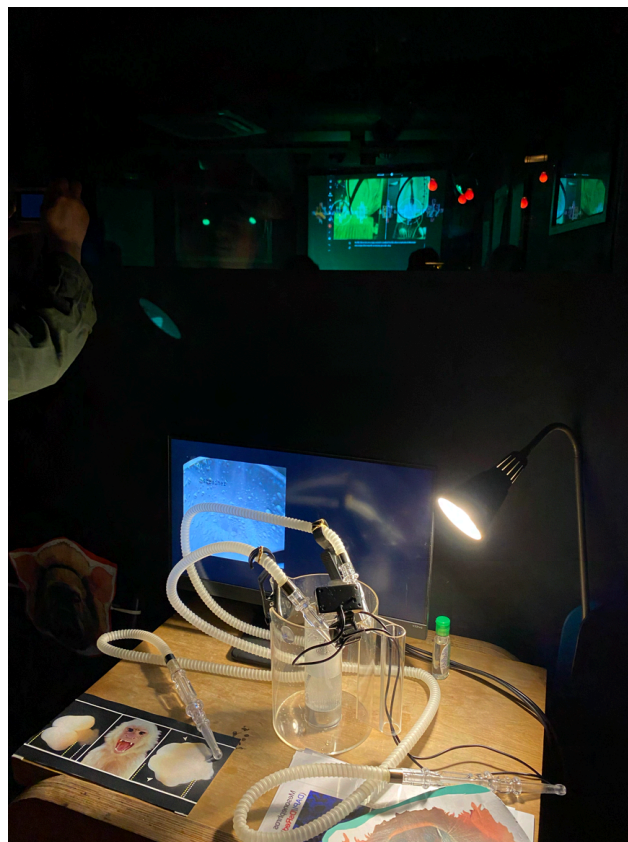


Figure 6. “Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023-2024) at Xenozombies event at the Polytechno in Corfu, Greece related to the TTTFellows 2024. *Transobject* (acrylic juicer resembling a biocontainer for ectogenesis, atomizer, USB camera/P5JS ml5 for object classification, two hookah flexible hoses tubing and handle). Image by the author.

## Final Considerations

The intention is that the work can contribute to critically addressing ectogenesis concerning the evolution of Government views, policies, and program measures that directly and dramatically impact our friendly permanence on Planet Earth. The apparent ultimate goal suggested by the object itself— in this case for a potential ectogenesis taking place inside of the plastic bag — reveals the failure and the frustration encapsulated by government policies for population growth in post-industrialized contemporary societies.

“Window Water  $\{object\}$  Moving (convolutional mnemonics)” (2023) presents to the audience, no babies but abstract shapes as outcomes form their 'made visible' "living breath". Mist patterns as clouds in a summer day sky as born from our desire; desire for objects that can be identified as ‘products’ by ‘well-trained machines’. The work plays with intended generative-ness with truncated goals that can have dystopian consequences when chronopolitics leads humanity to stay attached to a program that leads all to self-destruction instead of guiding to a sustainable future within nature.

The connection to the conceptual strength in “Everywhen” is the hope that the forces driven by our decolonizing efforts include art and technology to help reimagine and reclaim diverse temporal narratives — population growth policies must consider the connections between time and a broader cosmological-ecological consciousness that navigates past and future at once, bridging ancient and contemporary understanding to foster healing connections that can possibly transverse all living and artificial systems’ temporalities.

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