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RESEARCH

Performing the Electrical: Ecologies of the Imaginary and Fem-technologies

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As speculative aesthetics, what might feminist ontologies and artist imaginings do for rethinking the “real” assemblages and infrastructures of our quotidian experience, particularly with respect to those that standardize aggressive capital agendas, maximum industrial output and extreme waste? This paper draws connections between female artists’ image and event-making, speculative design and tacit knowledge, as sensing tools for technological possibilities at a time when energy dependency, in the form of electricity, is the greatest generator of fossil fuel waste and pollution. I use Remedios Varo’s paintings from the mid 1930–1960s as a springboard to think about sustainability and ecological design from an embodied, fem-magic and deep-time perspective, and I draw from other female artists whose work explores technologies and energy, such as Alice Aycock, Tania Candiani, Cassie Meador and Hito Steyerl. An analysis of these artists’ works allows me to explore the ways that feminist imaginings function as an ontological orientation that shifts power away from contemporary infrastructures, to decolonize and re-feminize electrical possibilities as alternative ways of engaging with and sensing assemblages.

Keywords: imagination; assemblages; performance studies; energy; ecology; speculative aesthetics

Visual artist Remedios Varo’s imagined assemblage works like this: first the funnel end collects the night atmosphere. Stars and dark space are then distilled through a series of vessels and tubes to create the pigment, which is used to paint the outline of the bird. Then through a glass lens the starlight is refracted, and as the light pours onto the page, the bird comes to life. The painting I describe is Remedios Varo’s *Creación de las Aves* (1957). Like many of Varo’s paintings from the mid 1930–1960s, it depicts an assemblage that operates through cogs, wheels, turbines, energetic vortices, distilled phenomena and human-ish operators. What these assemblages

ultimately produce is not always clear but the *way* they function, the processes that they perform, and the elements involved, position them in direct relation to the environments in which they appear; in a sense, they are prototypes for sustainable design. While Varo's spaces often read as architectural, semi-closed rooms are permeated by the outside world while the events of the inside bleed out. They are essentially symbiotic and ecological exchanges between materials, assemblages and operators. Together they perform process, or function that transmutes, transforms and recycles the natural world into other natural and elemental substances; the moon eats the stars, characters move by wheels supported by long hair, handlebar mustaches are steering devices while clothing contains turbines that power passenger and assemblage. These mechanized contraptions are bound to the spaces in which they appear – characters and machine are making their spaces as much as they are performing in and responding to them. Varo's paintings propose the importance of materials and objects in the making of these worlds. As Natalya Lusty notes:

In many of Varo's images, the human subject appears surprisingly indebted to the extraordinary forces of nature and the marvelous mutability of everyday objects, whilst also exploring the unconscious forces driving experience and imagination (2011, p. 57).

Lusty's observation hones in on a fundamental aspect of Varo's work: that *forces drive processes* and for Varo, these forces are not produced by the assemblages; rather, the assemblages seem to harness, tap into, delicately collect, and bring forth that which is often unseen or is atmospheric and uses these forces to create anew.

How might feminist ontologies and artist imaginings help us rethinking the 'real' assemblages and infrastructures of our quotidian experiences that have standardized aggressive capital agendas, maximum industrial output and extreme waste? In this paper I draw connections between five female artists' images and event-making, and read them as speculative design, tacit knowledge, and sensing tools for technological possibilities in a time when energy dependency, in the form of electricity, is the greatest generator of fossil fuel waste and pollution (According to the Institute of

Energy Research, 2016). I explore this specific function of energy and power, as a feminist intervention to open up future possibility and interactions between bodies and assemblages (living and non-living).

Feminist geographers Julie Graham and Katherine Gibson, sharing the pen-name J.K. Gibson-Graham, propose that the 'feminist political imaginary' is a way of living and belonging in the world differently and that this imaginary can be put to use in addressing the physical, spatial and material relations of assemblages (2011, p. 1). Assemblages are the structuring of interconnections, whether as reimagined industrial process or community organization and developments. In rethinking these relations, Gibson-Graham articulate a strategy both for social change and for actively addressing climate change and our current ecological precarity. Gibson-Graham suggest that rethinking our relations with assemblages provides a platform for "experimenting with new practices for living and being together" (2011, p. 5). Such approaches include sensing the unseen, attuning to living and non-living process, creating sustainable and supportive networks for growth and diversified approaches. In this paper I use female imaginings of assemblages, produced as artworks (not as objects of practical application) to explore what might be called a feminist ontology of energy in order to draw connections between energy and power, energy and sustainability. As a kind of provocation Gibson-Graham recall the words of ecofeminist Val Plumwood, "If our species does not survive the ecological crisis, it will probably be due to our failure to imagine and work out new ways to live with the earth, to rework ourselves and our high energy, high consumption, and hyper-instrumental societies adaptively ... We will go onward in a different mode of humanity or not at all..." (Plumwood via J.K Gibson-Graham, 2011, p. 1). In reading female artist imaginings for clues of *other ways* to relate to, and engage with, assemblages and *energy*, I explore what rises to the surface as a female ontology, one that desires embodied and tacit interactions and partnership with the world. And I propose lines of connection between selected artists, their imagined relations with the material and ethereal world as sources of energy, and emerging technologies of energy production and sustainable practices.

First, a few things to consider: the ideas presented here involve technology and sustainability, two practices that have not always fit well together. Not only has technological 'advancement' generated a huge amount of waste on Earth as outdated technology now overflow landfills, but the demands for new devices and the power they require in production and operation has further increased our growing dependency on energy sources (Zielinski 2006). The capital-generating practices surrounding technology and sustainability has produced a form of neocolonial 'environmentalism' in which natural habitats and traditional lands are threatened by extraction techniques and pollutants termed 'sustainable'. The related rhetoric is based on small scale mitigation efforts, safety procedures and carbon off-setting gestures, which do not address the destructive acts themselves (Escobar 1996). This paper hones in on the embodied, aesthetic and poetic possibilities of assemblages as a way to think differently about technology and sustainability. As a preliminary act of breaking from this history, it is useful to remember that the girth of technology spans not just the machines, mechanisms and tools that come to mediate humans and the world but also include: traditional technologies of sensing environments and working with nature (Nelson 2008); technologies of love, as an approach for encountering and building relations between human and non-human bodies (Sandoval 2000); and a technology of the imagination – the ability to visualize and explore possibilities in the mind's eye and to see connections that have yet to materialize. These technologies orientate us to the world in certain ways, to turn and face in the directions we hope to go (Ahmed 2006).

It is undeniable that much of what has manifested in way of utilitarian assemblages such as freeways, planes, refrigerators, electrical and sewage infrastructure, and so forth, has been developed by men and from a male ontological perspective. Epistemologies and ontologies are gendered, and as ways of knowing and systems of knowledge much of what has been passed down to us has been filtered through male-centric power structures that "misrecognize their own knowledge as all knowledge" (Cresswell 2013, p. 156). However, an archive of imagined assemblages produced by selected female artists taps into alternative systems that reveal a female eco-ontology of engaging with technologies differently. Fundamental to this is the question of power, and the way power materializes through what is valued. Female ontology

exposes a different value system: one that destabilizes not only what powers (fossil fuel, large scale infrastructures, maximum production), but which reconfigures the material and spatial correlations between power and knowledge, to create new systems of exchange. This has both political and ecological implications.

Ecologies of the imaginary

Remedios Varo, Alice Aycock, and Tania Candiani are three female artists who imagine assemblages in their creative work. Together these artists span more than 80 years of production, from 1930 to the present, forming an archive of assemblage imaginings. While Varo painted her assemblages in delicate stokes and with fantastical narratives, Aycock and Candiani make their assemblages as three-dimensional structures and mechanized contraptions. Together the three artists reflect thematic interests that might be described as anachronistic technologies, sensing the unseen and communicating through materials. Their poetic imaginings form a phenomenological language in which materiality is imbued with its own meaning, vitality, and agency.

The term “anachronistic” is often used in regard to elements and technologies that do not fit with a given time period. However, these artists often incorporate elements of the old and the new into their assemblages, and in doing so challenge the idea that time and efficiency are inherently correlated in a meaningful way. Rather than communicating some kind of shortcoming in technological possibility, these anachronistic elements communicate a desire for embodied interactions as a way of sensing the process of energy or material exchange. In Varo’s imaginings, for example, systems function with mechanical elements. They often depend on some form of kinetic energy, the source of which is often atmospheric, and in doing so, combine old technologies with new, emergent ones:

While there is invariably a certain whimsicality informing her representation of scientific and metaphysical ideas, a preoccupation with larger themes concerning the relationship between older forms of knowledge such as alchemy and the innovations of the new science (with its radical questioning of space and time) suggests her avid interest in the dialectic of old and new (Lusty 2011, p. 56).

For Varo, an engagement with scientific innovations, such as the emergence of quantum physics, extends the possibilities of sensing, interacting and inhabiting a space in between the old and new; her images depict a relation to materials and functions that are cyclical and sustained through natural phenomena. Varo's objects, tools and assemblages are anachronistic, but they also act as provocations, suggesting other ways to move through time and space, scientifically and magically.

Similarly, the early sculptures, installations and machine-works of Alice Aycock (1970–1980s) also explore functions that combine old technologies with new ones. She creates assemblages that reside somewhere between industrial processes and nascent technologies. Within Aycock's work, the theme of energy can be understood both as a response to her proximity to questions and concerns of nuclear energy (her father worked in the energy sector) and as an engagement with the theory of open systems – a popular concept in the early 1970s fundamental to advancements in computer and electronic technologies. In the words of Christine Filippone, "Aycock embraced system theory as a metaphor for art making because it permitted her to forge connections between seemingly disparate ideas" (2009, p. 125). At the time, open systems were not often recognized as having strong connections to ecological movements, yet Aycock's work often produced systems that had an implicitly ecological nature to them, especially in the role that alternative, often-sustainable energy processes played in her work. For example, *On the Eve of the Industrial Revolution, a City Engaged in the Production of False Miracles* (1978) is a series of assemblages that refer back to medieval technologies in which cogs, pulley systems and mills are proposed to both power and produce contemporary scientific phenomena. The series *The Large Scale Dis/Integration of Micro Electronic Memories* (1980–1981) is an ever-changing maze-like structure that is designed around the newly discovered microelectronic computer chip. "The labyrinth as an open phenomenological system offered many possible avenues for discovery as well as a decided emphasis on the body" (Filippone 2009, p. 162). The sculpture renders the circuitry physical and tactile, and draws connections between the electromagnetic movement of data and the body.

In her series *How to Catch and Manufacture Ghosts* (1979–1981), the work evolved with slight variations but continued to maintain a kind of energy production process. In one iteration, a series of gears connected to a tracking device hangs above a wooden platform, upon which sits a series of objects: a birdcage, a glass jar, and a number of lemons joined by conductive metals to create an organic battery that seems to power the assemblage. In another version of the same work, large spheres or orbs hang in the center of the platform. The function of these objects is referred to in the title of the work and further described by the artist: “the large, whirling orb, in the center, emits the energy that animates the universe, while the ribbon-like arc of galvanized metal, to the right, is the ghost catcher that harnesses that vital force” (quoted in Filippone 2009, p. 166). In these works, three types of energy are present: chemical reaction, kinetic, and energy transference through decomposition. The lemon-battery produces energy through an organic chemical reaction. The generative force of the universal can be understood as movement or kinetic energy. And the ghost-capturing aspect might be considered a process of decomposition and energy transference, as a ghost is the vital force that remain after the body no longer lives. While sensing the unseen is almost always present in energy processes, Aycock intuitively connected the relationship between old technologies, open systems and cyclical processes of energy production.

Along these lines, artist Tania Candiani explores structures and systems with cyclical features that hone in on the relationship between sound, language and writing as differing systems of knowledge and knowledge exchange. Yet for Candiani the material systems that form around new knowledge are always rooted in the language in which they reside, specifically the tensions between colonial and indigenous technologies. Focusing on the different powers that emerge through the translation process, Candiani draws connections between original technologies and their transformation or appropriation into ways of knowing, as scientific, geographic and gendered texts. Her objects might be seen as tacit critiques and material interrogations of normative knowledge-keeping by acting as translation mechanisms that expose the meaning (or power) embedded in modes of expression

and interpretation. Yet, Candiani remains optimistic both about her role as an artist in creating new meaning, and about the ways in which technologies interface to provide new information:

I am interested in a deep exploration of the moment of invention, understanding it as one episode of an extraordinary story, which has been evolving in language, approaches, philosophical intentions, meanings. I am additionally interested in how visions of scientific and technological progress carry with them implicit ideas about public purposes, collective futures, and the common good; and how these ideas are in constant evolution not just in technological processes, but in conceptual meanings. (Adelle 2016)

Candiani's statement reflects an ecological understanding of technology, systems of knowledge and the co-constructive nature that they carry in space, place and community.

In the installation *Máquina Telar* or *Loom Machine* (2011–2012) Candiani created a machine object out of fragmented technologies, a combination of both contemporary electronics and obsolete ones, which come together to perform a sonic encounter with materials. She repurposes obsolete punch-card guides once critical to mechanized looms, to transform them into the material agents that trigger and control the electronic sounds. In doing so, the fabric weaving is replaced by the textured sound created by light passing through the punch card holes. By mismatching these modes of technology Candiani employs a form of translation both materially and conceptually. The text 'handmade' appears around the mechanical processes, raising the question: where does handmade begin and end? At what stage of laboring does the human hand cease to exist and when does it become mechanical? Candiani's work functions, therefore, as an interesting parallel to the Cartesian philosophical system which divided nature and man into separate categories. And in doing so, challenges us to consider: where does one category truly end and the other begin? As Candiani notes, she is interested in the history of knowledge production and her assemblages become a part of that process in repurposing and reclaiming technologies.

In 2015 Candiani was one of four Mexican artists to present at the Venice Biennale in a project titled *Possessing Nature*, in which she re-created a pumping system, reminiscent of the one used by Hernán Cortés to drain the canals of the Aztec city Tenochtitlan as a military act of conquest. However, Candiani's assemblage acts as a speculative device for enacting what she calls 'reverse colonialism,' through the symbolic act of moving water into the gallery space of the Biennale (La Frenais 2015). At the same time, the project draws connections between the colonization of Mexico City, the effect of colonial capitalism and climate change. While Candiani's work doesn't focus on energy directly, it reveals a critical connection between knowledge, power and technology. Candiani's pumping system is an act of translation: the assemblage deciphers systems of knowledge as effects on the earth and leverages the imagination in order to see through and cut across systems, to make new meaning, and to connect acts of cultural assimilation with environmental destruction.

In considering the assemblages made by Varo, Aycock and Candiani, and by analyzing the themes of 'anachronistic technologies,' 'sensing the unseen' and 'communicating through materials', we begin to orientate towards what might be considered a female eco-ontology, one that takes as its starting point our participation with assemblages. As Jane Bennett writes in her insightful social, political and ecological investigation into vital materialism, "Perhaps the ethical responsibility of an individual human now resides in one's response to the assemblages in which one finds oneself participating" (2010, p. 37). Bennett is calling for an awareness of the ways in which our bodies participate in systems, and she is also suggesting that performing and responding differently to these systems, assemblages and structures of power has the potential to open-up, destabilizes and re-structure how these systems may work in the future.

The aesthetics of anachronistic technologies have often been used by science fiction and post-apocalyptic narratives to demonstrate that some form of disaster or abnormality has caused communities to revert to turbines, hand pumps, mills, etc. Anachronistic functions are easily read as something askew in time and space, where the old and new function together out of necessity, not intentionality. But perhaps we should interrogate where this assumption comes from, and its embeddedness

in the logic of normative notions of progress, and male-dominated notions of linear and rational time. Alternatively, might the incorporation of old and new technologies be a form of intentional design, a method of circular and sustainable practices that encourage embodiment and tactile encounters as a way of sensing scale, of desiring to know the world differently? When Bruno Latour asks: “Is there a way to bridge the distance between the scale of the phenomena we hear about [environmental destruction and global warming] and the tiny *Umwelt* inside which we witness” (2011, p. 2), might the assemblages imagined by these artists be a way of reckoning with scale, as embodied-sensing tools? What if we consider this an ontological feature of feminist systems, one that begins to resonate with the familiar terms of composting, recycling, repurposing, as well as harnessing the atmospheres of wind, gravity, sunlight and tidal movements? At first glance, this may not seem like a radical comparison, nor one that get us any closer to actually having access to assemblages which perform these transformational acts in meaningful or substantial ways. However, what does change, by feeling deeply the desire to interact with energy in the ways proposed by these artists, is that it increases the *value* of such *processes*. These are not fantastical or conceptual propositions, they are speculative designs for living in the world differently.

Imagined assemblages as speculative design

What if Varo, Aycock and Candiani’s assemblages were considered prototypes for sustainable design? What type of new assemblages might emerge? Take for example the Philips Design Probe’s *Microbial Home* (2010) designed by Clive van Heerden and Jack Mama,¹ as a lifestyle prototype in Eindhoven, Netherlands. As a living space, the Microbial Home functions through a sustainable circular logic and employs features that we might also consider anachronistic technologies, sensing the unseen and communicating through materials. As the designers describe it in their project video:

¹ The Microbial Home was a collaboration between Philips Design Probes, an initiative to develop new lifestyle technologies with sustainable impact and independent designers Clive van Heerden and Jack Mama, who together founded the design firm vHM Design Futures in 2011. <https://www.90yearsofdesign.philips.com/article/67>.

The *Microbial Home* is a proposal for an integrated cyclical ecosystem where each function's output is another's input. In this project the home has been viewed as a biological machine to filter, process and recycle what we conventionally think of as waste – sewage, effluent, garbage, waste water. Creating a cyclical eco-system (<http://www.vhmdesignfutures.com/project/87>).

The *Microbial Home* contains a number of interdependent assemblages such as: a lighting system that runs off of the energy of decomposition (the kitchen Bio-digester compost) and captured methane gas (from human waste); a recycling machine that uses mycelium to break down biodegradable plastics that then go into the bio-digester; an evaporative *larder* that would replace the use of electrical refrigeration and Freon type chemistry to keep food cool; as well as innovative ways to produce food within this system (edible fungi and water filtration); and techniques that use bioluminescent bacteria for ambient lighting.

While it is hard to say whether the *Microbial Home* will remain a bespoke and speculative space, the concepts of cyclical systems and a mixing of old and new technologies are foundational. It is a living space that is powered from process-based functions that harness the energy (senses the unseen) of natural processes of decomposition, off gassing, and evaporation. These systems are thus not much different than the ones imagined by Varo, Aycock and Candiani. And comparing the artist's work to this speculative prototype suggests how a female eco-ontology might find its way into our daily interactions with assemblages. If making this comparison does nothing more than connect a lineage or an archive of desire and ontological imagining, in doing so we are afforded the possibility of living differently in the world, and that is powerful. It diversifies what we want out of assemblages. And in capitalist terms, it creates a market of unmet desires, and this is an incentive that sets in motion multiple responses, possibilities, and alternative paths forward (Gibson-Graham 1993). To begin to sense the very real ways that energy sources can be rethought and to imagine the way it might feel to live in and with such assemblages is a political act, and one that has far reaching implications. It destabilizes the assumption that our dependency on normative energy is too difficult to re-direct – an assumption built into normative assemblages and their power relations.

How then do we begin to connect anachronistic technologies, sensing the unseen and embodiment with material assemblages? Electricity generation as an open system is a helpful site for considering how a female eco-ontology might reorient assemblages around energy consumption and power relations. On the one hand, Electricity itself has no material form or byproduct, it is formed simply through atmospheres, friction, heat, and chemical reaction. However, the processes used to produce large-scale electricity sources can have serious material and ecological implications. As Martin Medina points out: "Electricity generation, for instance, often requires extraction activities (oil and gas fired plants), mining (coal fired plants), and the construction of dams, sometimes very large ones that destroy natural habitats (hydroelectric plants) or pose problems in disposing of the resulting waste (nuclear power plants)" (2007, p. 87). While sustainable small-scale electrical production devices such as solar and wind turbines still require materials to be built, they do not produce waste in the form of off-gassing, emissions or byproduct. As Medina also points out, however, there is a great amount of energy hidden in unvalued 'waste', whether it is human waste as a source of decomposition and energy transference, or reusable materials that decrease energy production needs. Yet, the rhetoric of energy as large in quantity, scale and capital value restricts the development of these processes. Changing this rhetoric, destabilizing normalizing infrastructures by diversifying energy sources, begins with a desire to engage with processes, scale and embodied interaction (including in the form of behavior) in different ways. As Siegfried Zielinski writes in *Deep time of the Media* (2006), one thing is clear: change will occur, and, what we do have control of, as consumers and interlockers with assemblages is, "the ability to influence how long ideas and concepts retain their radiance and luminescence" (p. 2). I would argue that many of the normative sources of energy were never luminous to begin with.

What the female artist imagination does that is so useful for thinking about engagements with technological spaces is it makes sensing the unseen, embodied interaction and interdependence critical aspects to the assemblage, whether that be sensing the electrical potential in sun-light, photosynthesis, friction and moment or sensing the toxicity and distant pollutants of other processes. As Robert Hobbs states

while thinking of Alice Acycock's machines and the female ontological assemblage, is that they create a "fissure in a closed universe that provides glimpses of heretofore unimagined possibilities" (Hobbs 2005, p. 2). As I relate to these artist assemblages, I desire to interact with them physically, I desire their means of production in a way that I do not desire to interact with what I might call normative assemblage. The allure of the female eco-ontological assemblage is both aesthetic and embodied, an attraction for a circular nature of production achieved through symbiosis with environments and a harnessing of inherent energies. The anachronistic aspect of these technologies inviting me to know them through interaction with cranks, turbines and kinetic energy production and their scale is accessible, conceivable and re-orientates me to processes required to produce ecological and sustainable energy sources. As Bruno Latour points out, "all assemblages need intermediaries" (2011, p. 5). The intermediaries of the female assemblage integrate body and mechanized function and expand the possibilities of the intermediary as ghosts, vortices, vibrant materials and their translation into energy and new systems of power as a powerful resituating of values and relations. Part of allure in the female ontology of assemblages are the ways in which their function "invites us towards another level of reality" (Harman 2005, 135). But this invitation is not always utopian, and here we circle back to the dark connections between technologies, sustainability and power, the intermediary of materials and power, to ask: who or what labors for us?

The value of process and labor is addressed both in the work of the American dancer and choreographer Cassie Meador and German video artist and academic, Hito Steyerl, each of whom create works that function as extreme counterpoints to the same question: 'what labors within the process of production and consumption?' Both artists deploy dance and light as metaphors that allow them to performatively engage this inquiry. In 2013 Cassie Meador began the project *How to Lose a Mountain*, for which Meador walked the 500 miles that separated her home from its electrical energy supply. Meador's project used the body to attempt to draw some kind of proportional relationship between the materials and the energy she consumes from her home, in the form of electricity. By walking the distance that her electricity travels she traces not only the path between home and generating station, but along

the way she passes the mountain-top removal site where the coal is extracted, that powers her electrical supply. As a maker, the tacit knowledge about what it feels like to travel distance, like a material for which to be consumed is reenacted in a final dance performance about the experience. While the energy she exerts, as an artist, cannot in any tangible kind of way be reintroduced, compensated for, or subsidized, the electricity that she has used, and the work that generates it, the project draws a line of connection between body and consumption and energy as labor and power, (it is perhaps useful to note these are the same powers found in collective protest, in pilgrimage and in practice). Meador situates her body as that which consumes in relation to the materials used to sustain her body as it lives in her home. At the same time, she labors as both a walker and a dancer as a way to proportionally understand and to know the tacit relations between body, energy, and power.

As a kind of inversion to Meador's project, Hito Steyerl's immersive video work *Factory of the Sun* (2015) centers on a surreal story of workers, whose movement – in the form of forced dance – is collected via a futurist version of motion capture technology and used to power an artificial sun. Steyerl's imagined assemblage is a dystopian and purely digital one. While *Factory of the Sun* is not asking a direct question about sustainability, but more pointedly responding to the questions of oppression in an increasingly digital era, the project nevertheless functions through the relationship of body energy and solar energy, and effects to produce an artificial sun via the labor of dancers (Steyerl artist talk, *What is Contemporary?* 2016). Steyerl describes her process of devising the project as initially being influenced by the coming together of seemingly unconnected relations between, light, data and speed. She also became fascinated by a Donna Haraway quote: "Our best machines are made of sunlight; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum." And it is precisely their invisibility that makes these machines so dangerous in Haraway's estimation, for they are "...as hard to see politically as they are materially" (Haraway [1984] 2004, p. 7). Haraway's statement implicates sensing the unseen as a critical tool. This logic asks that the unseen be a part of the assemblage, energetically, socially and politically. This requires a different ontological lens, one that feminist artists and their imagined assemblages have labored to create.

Returning to an analysis of Steyerl's piece, what is particularly interesting to me is the connection Steyerl makes as a metanarrative between energy as light and labor. In the video work, the pleasure of dance is coopted by industrial, if not corporate desperation to maintain a sun-like feature that I imagine has been lost through advanced capitalist and industrial effect. This "dance labor camp" as Steyerl calls it, becomes a spatial imagining in which the object/subject commodity manifests as "condensed, concealed chunks of energy". The characters in the film whose labor is transferred into light and energy, we note, is uncannily similar to Steyerl's role as a video artist, whose labor also results in packets of electrons and moving light image.

In the conceptual space between Meador and Steyerl project we find two women trying to make connection between divergent ideas in an attempt to get at something new. The eventfulness of their works acts like tacit invitations to draw correlations between bodies, energy, light and power. In locating the ecological undertones of these pieces, I propose that what is at stake is recognizing that there are different processes to creating energy and power and that process is labor-full. How do we orientate towards the labor (human and nonhuman) that it will take to create critical and ecological change? The allure of Varo, Aycock, and Candiani's assemblage is that they *do* what I alone cannot, and yet their composition of relations, i.e. how they *do* their processes, draws me in. I desire their interconnection and I long to be a part of their production, to labor with them.

Conclusion

Through the imaginations of these selected female artists we are able to locate the elements and tacit desires that invite us to interact with the world differently. Themes of interconnection and ecological systems emerge from their art, whether it is Varo's ecology of fantastical process or the workings of imagined machines envisioned by Aycock and Candiani, or the embodied practice of Meador and the digital dystopia of energy dependency of Steyerl. In each of these pieces we begin to locate a line of inquiry in which energy and power are imagined differently, reformatted to fit the desires and orientations of what might be considered a female eco-ontology. The systems, assemblages and technologies present in these artistic

works resonate with ecological and political implications. More crucially, however, they establish approaches and ways of relating with processes—creative, material, and transformative—that point in the direction of speculative and sustainable design. All five of these artists are oriented towards systems that harness energy and which produce power through relational processes. To ask where your energy comes from is to imagine yourself bound to every phase of its consumption. Plants eat light, for example. Our consumption of energy too might be improved by viewing all that we consume as a process of eating, ingesting and becoming part of the energy we consume. I long for assemblages that connect rather than distance me from the input-output and material partnerships, and in doing so allow me to value more fully their material relations. As Isabelle Stengers, a leading voice in speculative design and ecology writes:

An ecology of practices does not have any ambition to describe practices 'as they are'; it resists the master word of a progress that would justify their destruction. It aims at the construction of new 'practical identities' for practices, that is, new possibilities for them to be present, or in other words to connect. It thus does not approach practices as they are—physics as we know it, for instance—but as they may become (2005, p. 186).

As ontological orientations, artist-imagined assemblages shift power away from contemporary infrastructures, to decolonize and re-feminize energy possibilities by suggesting other ways of engaging and sensing diverse technological and sustainable possibilities and approaches. These imaginings function in an expanded field of energy sources, in which ghosts, planetary revolution, vortices, light, and sound, power assemblages sustainably and through imagined ecologies of other possibilities. Therefore, rather than reading these works simply as fantastical and material storytelling, we should recognize the ways in which they establish a set of values, ontological desires and approaches to enact energetic agents, differently.

Competing Interests

The author has no competing interests to declare.

Author Information

Geneva Foster Gluck is an artist, scholar and physically trained performer. Her work explores eventfulness, spatial theory (by way of scenography) and imagination as critical tools for social change and environmental justice. Geneva is a PhD candidate at Arizona State University working on a dissertation titled *Performing the Electrical* in which she reconsiders energy dependency through the lenses of deep time, feminist aesthetics and postcolonial theory. Geneva is the director of Sugar Beast Circus, an interdisciplinary creative platform and is on the board of directors for Boarder Arts Corridor, a binational arts organization based in the borderlands between the US and Mexico.

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