Stasis Suits

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Abstract

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This project is an exploration of fragility and safety, using artificial protective membranes as material and form. The work is concerned with situations of 'stasis' - defined as a time loop, a medical term for a blockage, and as described by Georgio Agamben via Hito Steyerl, as deliberately maintained instability. I examine the production of hazardous material and futile mitigation efforts as examples of this kind of stasis - problems caused and maintained by the same agents. This project focuses on empty gestures of protection; using hazmat or cleanroom suits as form and metaphor, I compare properties of living membranes and the simulation of those membranes by the makers of protective gear. The research concerns E. I. du Pont de Nemours and Company (now DOWDuPont) for its technological innovations in membrane manufacturing and its history of rampant pollution. This research and the accompanying artwork looks critically at a surface as a boundary, as a means of concealment, and as superficial protection.

[1]In medicine, the word *stasis* refers to "a stoppage of flow of a bodily fluid,"[2] - a departure from ordinary function with serious consequences. In literature, it means a period of inaction, without forward movement. In science fiction, stasis may be spatial: an area in which time stops. In the introduction to *Duty Free Art: Art in the Age of Planetary Civil War,* Hito Steyerl employs the concept to describe a political situation of constant or continual instability. It refers to,

> both civil war and immutability: something potentially very dynamic, but also its absolute opposite...Conflict is not a means to force a resolution of a disputed situation, but a tool to sustain it. A stagnant crisis is the point. It needs to be indefinite because it is an abundant source of profit: instability is a gold mine without bottom.[3]

Steyerl's use of stasis connects political instability and profit, and her research in the rest of the book demonstrates how the former is used as a means to generate the latter. Though Steyerl's research is focused closely on the relationship between contemporary art and cycles of political violence, *stasis* may allow us to examine other cycles of maintained instability as well. I have found that this term relates to my research on empty gestures, vulnerability, PPE[4], human health, and hazardous material. For the last year, I have explored the connections between pollution and profit, and the relationship between hazard creation and hazard maintenance, in which anxieties are fueled by the reality of a growing threat (climate change, a polluted environment) and offered inadequate solutions. Steyerl's point about stasis being "a goldmine without bottom" may help us understand why, in this case, pollution mitigation efforts are so lacking, and gestures of

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[1] Roll your eyes at the cliché of starting a paper by defining a word all you want, reader, but that's where we must begin.

[2] "Stasis", Medicinenet.com

[3] Steyerl, Hito. *Duty Free Art: Art in the Age of Planetary Civil War* (Brooklyn, NY: Verso, 2017), 3.

[4] Personal Protective Equipment

protection are so empty. This paper begins with a case study of ExxonMobil's climate change denial and greenwashing as an example of stasis. Next, I introduce the metaphor of interior and exterior to compare the two-sidedness of corporate policy with the insides and outsides of our own corporeal bodies. I am most interested in where this metaphor breaks down (leaks), and I will explore the incompatibility of life with a closed system. Using DuPont LLC. as subject and form, maker of technologically advanced membranes and historically shameless polluter, I demonstrate where corporate policy made physical by pollutants permeates into our environment and into us. The end of the paper is a description of my installation in the Henry Art Gallery as it embodies - weirdly - this research.

ExxonImmobile

The first search result from typing, "exxonmobil climate change research" into Google is flagged as an ad from ExxonMobil, with the headline, "Don't be Misled | Understanding the Facts." The second two links, though not marked as ads, also come from the ExxonMobil corporate website. After three attempts at misdirection, the fourth link - the one I was looking for - is an article from Scientific American about ExxonMobil's 40 years of climate change research and its simultaneous public denial and contributions to misinformation campaigns. This story, originally investigated in 2015 by InsideClimateNews, has resurfaced in the news cycle as of the spring of 2019. According to their investigation and subsequent reports, ExxonMobil began conducting climate research in the 1970s while ramping up their support for climate change denial groups. In private research, ExxonMobil predicted that CO2 levels could reach about 560 ppm[5], and global

[5] Parts per Million. "*Parts per million - ppm* - is commonly used as a dimensionless measure of small levels (concentrations) of pollutants in air, water, body fluids, etc." https://www.engineeringtoolbox.com/ppm-d_1039.html

temperatures could rise 2º C above then-current levels.[6] Their predictions are looking pretty close; in 2019, for the first time in millions of years, CO2 levels have reached 415 ppm. According to leaked internal memos, ExxonMobil secretly accepted the accuracy of these findings and their own major contributions to rising CO2 levels. They planned for rising temperatures and sea levels, turning towards previously inaccessible arctic oil reserves and accounting for sea level rise in the construction of offshore oil-drilling platforms.[7] Externally, the company maintained a public face of denial, poured millions of dollars into funding climate change skeptics, and contributed heavily to widespread, purposeful, public misinformation.

ExxonMobil's responsibility, as a publicly held corporation, is to maintain profitability and growth for their shareholders: their efforts in misleading the public - fueling instability - were necessary to maintain access to the 'goldmine' of unregulated fossil fuel extraction. Since these reports have gone public, however, they've had to adjust their public face. On May 8, 2019, ExxonMobil pledged $100m to emissions reduction research.[8] They sponsor NPR and PBS programming too, advertising progressive research into climate solutions on commercial breaks in the middle of dire reports on wildfires.[9] These gestures are meant to soothe us, to assure us that better research and new technology is on its way; they're not the bad guys anymore. Of

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[6] Banerjee, Neela, Lisa Song and David Hasemyer, Exxon: The Road Not Taken, *Inside Climate News*. Sept 16 2015. https://insideclimatenews.org/news/15092015/Exxons-own-research-confirmed-fossil-fuels-role-in-global-warming

[7] Lieberman, Amy and Susanne Rust. "Big Oil Braced for Global Warming While It Fought Regulations," LA Times, Dec 31, 2015. http://graphics.latimes.com/oil-operations/

[8] "ExxonMobil to invest up to $100 million on lower-emissions R&D with U.S. National Labs," *ExxonMobil Corporate News*. May 8, 2019. https://corporate.exxonmobil.com/en/news/newsroom/news-releases/2019/0508_exxonmobil-to-invest-up-to-100m-on-lower-emissions-randd-with-us-national-labs

[9] Anecdotal from listening to KUOW Seattle Public Radio

course, it ultimately has the same function as the earlier denial: to distract the public from the depth of their responsibility, to minimize any need for drastic structural and procedural change.

Their example is not unique; similar deceptive practices have become so widespread and ubiquitous that there's a sociological term for them: 'greenwashing'. Coined either from 'brainwashing' or 'whitewashing' -- 'greenwashing' describes a suite of PR strategies.[10] A greenwashed company is not concerned with enacting fundamental structural change, because this poses a serious risk to future profitability and growth. Greenwashing is re-working an image by funding public radio, or 'investing in sustainable agriculture'. Greenwashing is a surface, a mask, an outward facing projection untethered from any deeper reality. In a human being one would call this hypocrisy (does this term apply to a multinational conglomerate?) Greenwashing is a key part of the maintenance of a profitable stasis. PR efforts and empty gestures of mitigation (see: 100m for emission reduction research) do not just offer 'alternative facts,' they implicitly prohibit forward movement. On one hand, this messaging acknowledges a *serious problem*. This tracks with scientific consensus and reminds us of our anxiety re:the impending climate-catastrophe. At the same time, greenwashing removes the culprit: who ought to be held accountable, if ExxonMobil is now proposing well-funded research towards solutions? We are left trapped between acknowledged hazards and fake solutions, empty promises, or inadequate protection.

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[10] Wikipedia, "Greenwashing". https://en.wikipedia.org/wiki/Greenwashing

“What we don’t see, we pollute”[11]

A key to maintaining stasis lies in controlling information, and by upholding strict divisions between public and private, internal and external, hidden and visible. I have so far alluded to this formal connection between stasis and the division of interior/exterior. I have noted two ‘sides’ to corporate policy, described above as public and private. Such a clear boundary allows for the unchecked hypocrisy I have outlined. Even the language of ‘leaks’ demonstrates this metaphor; the ExxonMobil memos from the ‘70s and ‘80s were not intended for outside eyes; they were hidden until someone released them by breaking through the closed system of privatized documentation. Information flows like water, and leaks are fatal to secrets. To seal is to hide. The medical definition of stasis is a blockage.

The metaphor of inside and outside, and the boundaries between, has allowed me to turn aspects of corporate policy into form.[12] Public-facing strategies and policies, such as greenwashing, are the ‘surface’. The ‘interior’ - the secret memos, the protected patents, hazards, are never seen by outside eyes. By comparing aspects of corporations with the bodies for which they are named, I hope to highlight both the similarities and the vital differences. The inside/outside metaphor may extend to a wide range of applications; it may apply to biology, politics, law, geography, architecture, personal identity… et cetera. Any meeting point between two supposed opposites lets us examine and perhaps understand the qualities, difference, and possibility of exchange between them. My work compares biological membranes - cells, skin, living bodies - and the technological membranes I have used as material. These membranes -

[11] Quote by Maya Lin.

[12] The work of Irena Haiduk, and the way she speaks about ‘incorporating’ has been extremely influential. I credit her lecture at the Henry Art Gallery in 2018 for making me aware of the linguistic and legal similarities between human bodies and corporate ones. https://irenahaiduk.com/work

airtight, water resistant, protective - embody the denial of an essential fluidity from inside to outside. They manifest the attempts to seal, hide, and contain, to maintain a stasis. These strategies are at odds with biology; they ignore the laws of life to which human beings are beholden, concerned only with managing a crisis for maximum profit.

Bodies are Leaky in a Good Way

The most important feature of living membranes is their selective permeability. It is this quality which has allowed life to evolve. This quality allows for cells to maintain homeostasis while facilitating processes necessary for all life: inputs and outputs of energy, communication, defense. Microscopically, these membranes allow vital exchange with their exterior; through cellular respiration, food is transformed into molecular energy. (Interestingly, in animals, CO_2 is also a byproduct of this process.) Likewise, and on a larger scale, our bodies are in constant exchange with our exterior. Every time we breathe, we disrupt this imaginary line between inside and outside.

Our skin, too, is in constant exchange with the environment. It is our largest organ, and the outermost, most visible site of exchange. On the outside, it is our surface, image, our tangible identity. This surface is so significant that its differences have overwhelmingly fueled the constructs and invented hierarchies of race, for example. Skin is also the border between the visible and the non-visible: the inside. Our conscious understanding of self and other are really only ‘skin-deep’. For instance, I have no idea what the inside of my forearm looks like; if that were to change, it would mean that I was either in surgery, very injured, or both. Staying at surface level is safe. Seeing the ultimate interior of the human body only happens in cases of

horrific injury. For those reasons, perhaps, we do not question the division between outside/ inside, even when it does not pertain directly to our bodies. We want the inside to be invisible, or at least non-visual. We are comfortable with a state in which the two do not match up, so long as the exterior looks familiar. This may explain the instinct to ignore that which is monstrous: the facts and figures of climate change, for example, are basically impossible to conceive of.[13] This works to the advantage of those with something monstrous to hide.

The fear of the unknown and the appeal in the familiar leave us more vulnerable to exploitation. The first example in this paper, of climate denial followed by greenwashing, is one way in which we are further harmed by empty promises of protection. However, and because of the formal implications of protective membranes, I have focused most of this research - material and conceptual - on one manufacturer in particular.

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[13] See: Timothy Morton's writings about climate change in *Hyperobjects*. He goes into great detail about the philosophical qualities of the problem which make it exponentially *more* monstrous and hard to think about than pretty much anything else.

The Miracles of Science[14]

DuPont de Nemours, Inc., (now DowDuPont[15]) makes an excellent case study for several reasons: the company has a documented history of pollution; the philanthropic efforts of the founders' heirs were an enormous cultural presence in my home state of DE; and the firm continues to lead the field of petrochemical tech. Originally just manufacturers of gunpowder,[16] DuPont is now ranked as the world's 3rd largest chemical company. It has a long history of influencing local politics[17], polluting, and patenting (and litigating) numerous plastic-derived fibrous compounds[18] - synthetic membranes. An abbreviated list of its inventions over the 20th century includes the bulletproof textile Kevlar, neoprene, nylon, Corian, Teflon, Mylar, Tyvek, and Lycra - though some of these have since been sold to other companies. Some of these advanced polymers have fundamentally altered how we dress and where our bodies can go. Some of these examples are highly specialized - literally bulletproof - and some are everyday. Buildings sporting Tyvek HomeWrap logos spring up with each new development, a constant signifier of neighborhood change. Mylar (a trademarked name) has the capacity to reflect sunlight and heat. It is used to insulate homes, to protect archival documents, and even as a security blanket to drape around the shoulders of trauma victims.

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[14] Dupont's corporate slogan

[15] After a 2015 merger with Dow Chemical.

[16] Wikipedia. wikipedia https://en.wikipedia.org/wiki/DuPont

[17] See: Pete DuPont, former governor of Delaware. https://en.wikipedia.org/wiki/Pete_du_Pont. Also, the accusation that powerful parties connected to DuPont basically shadow-banned this book about their dubious activities. https://medium.com/@forbiddenbookshelf/behind-the-forbidden-bookshelf-du-pont-dynasty-by-gerald-colby-5f0892aa9b4f

[18] Sources: wikipedia for products, www.dupont.com, opensecrets.org for political data, this dubious website: https://www.sourcewatch.org/index.php/DuPont#Lobbying, and "Is Pollution Value Maximizing" by Roy Shapira and Luigi Zingales 2017. https://www.nber.org/papers/w23866

Figures 1 and 2. Images from DuPont's Personal Protection Newsletter. 2018 and 2019.

The process of manufacturing these protective membranes is, of course, wildly polluting. There's a recent documentary detailing one specific example,[19] and many lawsuits with large quiet settlements.[20] The extent of this company's influence on the physical world is exemplified in data showing that over 98% of people in the U.S. have chemicals from Teflon in their blood.[21] Proximity to these chemicals during the manufacturing process has been linked to asthma and

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[19] *The Devil You Know,* dir. Stephanie Soechtig, Jeremy Seifert, 2018

[20] The most recent lawsuits involve the manufacturing of Teflon detailed in the documentary. In response to the controversy over PFOA pollution, DuPont separated the polluting plant in question, in Parkersville, WV, to a separate (spin-off?) corporation: Chemours. Anecdotally, I didn't know what Chemours was until visiting my hometown (Wilmington, DE) last year I saw their logo at the "DuPont" theater. Perhaps this was part of the deal for accepting the burden of all those settlements? See: https://www.business-humanrights.org/en/dupont-lawsuits-re-pfoa-pollution-in-usa, https://www.delawareonline.com/story/news/2017/02/13/dupont-and-chemours-pay-670m-settle-pfoa-litigation/97842870/, https://en.wikipedia.org/wiki/DuPont_Building

[21] Calafat, Antonia M. et al. "Polyfluoroalkyl Chemicals in the U.S. Population: Data from the National Health and Nutrition Examination Survey (NHANES) 2003–2004 and Comparisons with NHANES 1999–2000." *Environ Health Perspect* 115, no. 11 (2007). 1596-1602.

certain cancers, but the effects of widespread low concentration is not yet known. Recently, the Political Economy Research Institute named DowDupont the top air polluter of 2018, with a total of 8.2 million pounds of airborne chemicals released in 2015.[22] This company is literally at the top of the list of contributors to air and water hazards.

In a big 'fuck you' to all those human bodies, DuPont extols their 'dedication to personal protection' in their advertising material[23] for hazmat suits. For about a year I have subscribed to their Personal Protection Newsletter, which is emailed to me every week or so. Like all advertising, these newsletters often take great care in pointing out the myriad hazards of everyday life/work. One particular image, of a worker in a white bunny suit using a spray paint applicator, with the tagline 'Protective Clothing for Painting Applications,' (Fig. 1) was particularly influential in directing me to use these suits as material. At first, I saw an ironic nod to the self imposed hazards of an art practice, or the silliness of exposing yourself to hazardous materials for some aesthetic goal. This is an area in which feel some deep ambivalence, and one that I think about most days in the studio around my cadmium and lead paints, my solvents, or after I've been sanding and my snot is colored by dust particles. Eva Hesse died at 33. Over half of the adults on my mother's side have died of cancer[24], and they weren't exposing themselves on purpose.

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[22] "Toxic 100 Air Polluters Index (2018 Report, based on 2015 data)." Political Economy Research Institute. UMass Amherst. https://www.peri.umass.edu/toxic-100-air-polluters-index-2018-report-based-on-2015-data

[23] I subscribed to their newsletters because I had to give them my email when I wanted them to send me a beer cozy made out of Tyvek.

[24] Including my mother

This ambivalence about art practice is compounded by the awareness that workers[25] are exposed to hazards for someone else's aesthetic goal, or luxury, in every single extractive industry. The diamond industry,[26] the production of chocolate,[27] talc mining (for a more luminous house paint, which is classified as a 'conflict mineral'[28] for its part in funding ISIS), are only a few examples of hazards in the name of taste. The artist in her studio is near the end of the trail of hazards from raw material to priceless art. This connection - between hazards and aesthetics, violence and art, has been explored by many, and many continue to elucidate these links.[29] My work is deeply influenced by this way of thinking. Hazards are tightly woven into the production and economy of art[30] and the production of technological advances, but they are usually hidden, ignored, or flimsily contained. These suits evoke the hidden hazards in art practice and in industry. They represent the attempt to conceal dirt and pollution - in their pure white surfaces - and the attempt to contain against that threat. The information in the rest of my weekly protection newsletter is series of promises: if you wrap yourself correctly, if you choose the appropriate armor, you will be safe - from hazard, pestilence, danger. The world, and all that

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[25] Real workers in traditional economies, not "art-workers" whatever that means.

[26] This is well documented, mostly as it pertains to human conflict, slavery and child labor. The US Department of Labor maintains a list of goods produced by child labor or 'forced labor'. https://www.dol.gov/agencies/ilab/reports/child-labor/list-of-goods?items_per_page=10&combine=diamonds

[27] Whoriskey, Peter and Rachel Siegel. "Cocoa's child laborers." Washington Post. June 5, 2019. https://www.washingtonpost.com/graphics/2019/business/hershey-nestle-mars-chocolate-child-labor-west-africa/?noredirect=on&utm_term=.e05469e98cea

[28] "Talc: The Everyday Mineral Funding Afghan Insurgents" GlobalWitness. May 22, 2018. https://www.globalwitness.org/en/campaigns/afghanistan/talc-everyday-mineral-funding-afghan-insurgents/

[29] For me, Hans Haacke's systems pieces, Carolina Caycedo's work about the Snake River Dam, and Cameron Rowland,come to mind, but the list is much longer.

[30] This connects back to Steyerl's research on art institutions and market in conflict zones.

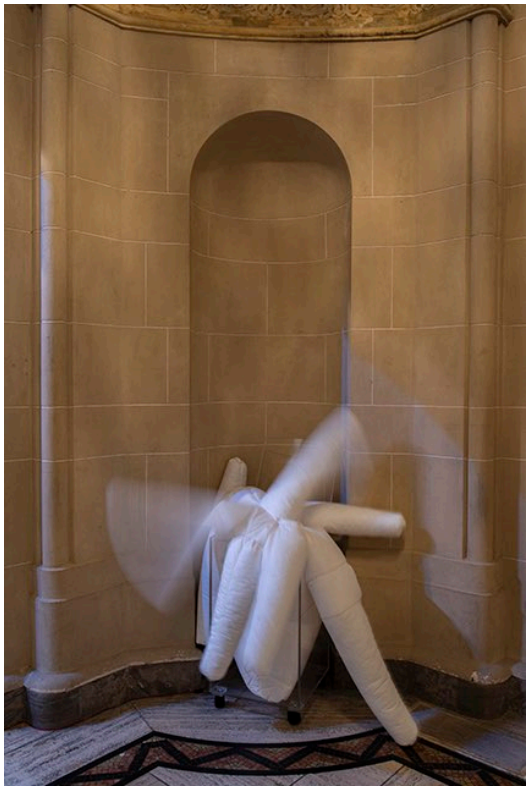
we've added to it in the name of technological advancement, can't get you if you just wear the right suit.

Figure 3. Detail of study for *Stasis Suit(e).* Tyvek 500, red thread. 2019

Stasis Suits

Originally, I wanted to make a set of lungs out of a Tyvek hazmat suit, to force a comparison between the two membranes and their functions. As I worked, however, I realized that the breathing mechanism made the image of a lung less important; I could sew almost any object and its movement would be immediately recognizable as breath. With that in mind I began to corrupt their form, just as 'breathing' corrupts their intended function. These suits are sold in the outline of a tall male human body, who are apparently only either size L, XL or XXL. By 'corrupting their form' - basically, sewing all kinds of biomorphic shapes - I had two main intentions. The first was to reject a smooth, whole, self-contained image of the body. That image, as I have explained in previous sections of this paper, is a false representation of life, which ignores interactions and processes of exchange on which life depends. The second reason for transmogrifying these suits was related; I hoped to highlight, through form, who and what we designate for protection, who is inside vs. outside. (Figure 4)

The breathing mechanism serves to further corrupt the function of the suits and to highlight their futility. Breathing is incompatible with sealing, which these suits are made to do very well. Pushing air in and out would undermine its intended function as a barrier - if they were breathing, the suits couldn't be a closed system, and if they really fulfilled their function, they wouldn't breathe. They manifest the ultimate futility of attempts to close, contain, to barricade. DuPont's permeation data tables, which tell you how resistant a material is to a particular chemical, are measured in units of time - in seconds, actually - until the outside gets in. Science has yet to figure out a way to stop time.



Figures 4, 5, 6: Installation views of *Stasis Suit(e),* Tyvek 500, computer fans, red thread, acrylic case, supports, casters, plexiglass. 2019. Henry Art Gallery, Seattle

My mechanism for these lungs, and for what they've become, is obviously artificial. Instead of creating a vacuum, like living bodies, I have attached computer fans on timers to the backs of the sculptures. The visual effect is similar - a surface moving in and out - but the mechanism performs an inadequate imitation. The effect is one of simulation. It also makes these soft robots appear wounded. These objects appear to breathe, but there's no true respiration. Nothing is exchanged, or transformed, absorbed. No energy is made; the air just flows in and slips back out as the timer loops indefinitely. This is Steyerl's *stasis* as a kind of form, in that these objects are in motion only in the most superficial sense. However, they represent not the actors causing stasis, or profiting from it, but those caught in the crisis trying to make the best of it - performing their part in the dance of empty gestures. They are full of impossible potential, forever stuck with only minor deviations in their movement. With every inhale they seem about to get up, roll away, climb out of their box, off their supports, but then the fans switch, they fold back into themselves, defeated again.

In the Henry Art Gallery, I have installed three of these objects in the rotunda, which leads into and out of the North galleries and James Turrell skyspace. Before extensive renovations to the Henry, this room was the entry to all the galleries, the channel between inside and outside.[31] Each object sits in its own alcove in a corner of the room, visible, but withdrawn to the margins of the space. I have turned the fourth alcove into an incubator, or vitrine, by sealing the corner in clear plexiglass and installing a hazmat sleeve sticking out. Their placement in this room, with its alcoves, is another manifestation of my interest in boundaries; the space, with its many doorways and few walls, engages with the many 'walls' in my piece.

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[31] Credit to Emily Zimmerman for telling me this.

The nature of the room and my 'architectural intervention' in the sealed alcove also invites the viewer to consider themselves in relation to the objects. Just as an object 'breathing' makes one aware of her own lungs, the sleeve sticking out of a transparent vitrine blurs the edges of active and passive, viewer vs. object. The extruded arm[32] puts the viewer in the role of the incubatee, or specimen, the object of study. I hope that this will encourage the viewer to find equivalence with these wounded suits, and with whatever they would otherwise consider 'the outside,' to understand the futility of living in closed system, and to consider their own vital fragility.

Figures 7, 8: Installation views of *Stasis Suit(e),* Tyvek 500, computer fans, red thread, acrylic case, supports, casters, plexiglass. 2019. Henry Art Gallery, Seattle

[32] In addition to looking like a flaccid phallus.