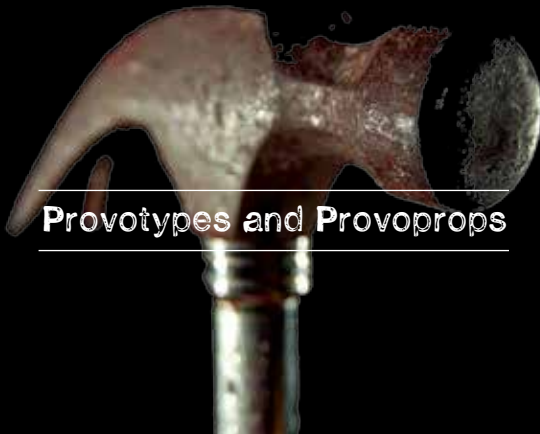


PROVOCATIVE PRODUCTS



Provotypes and Provoprops

PROVOCATIVE PRODUCTS



*Art is not a mirror held up to reality
but a hammer with which to shape it.*

Bertolt Brecht

edited by Otto von Busch

ISBN: 978-91-983184-1-8
New York: New Praxis Press 2016
[edited May 18 2016]

The authors has made every reasonable
attempt to contact owners of copyright.
Errors and omissions will be corrected in
subsequent editions.

CONTRIBUTORS:

Estefania Acosta
Oliver Bolton
Ariane Elefterin
Apoorva Gairola
Fattori Fraser
Lisa Merk
Leticia Oxley
Adam Ridgeway
Timothy Ronco
Laura Sanchez
Mikhail Volf
Otto von Busch

CONTENT

Provocation?	9
Estefanía Acosta, Laura Sanchez & Misha Volf: <i>Guiltrip a daily activation of eco-guilt.</i>	13
Ari Elefterin & Lisa Merk: <i>Melt, The Power of Touch and the Disappearing Ice Caps</i>	23
Apoorva Gairola, Leticia Oxley & Timothy Ronco: <i>Cups for Crabs Initiative</i>	37
Lisa Merk & Ari Elefterin: <i>Human journey to Mars & How Sad Life Would Be On Mars</i>	49
Fattori Fraser & Adam Ridgeway: <i>Asymmetric Hematology</i>	77
Oliver Bolton: <i>Provocative Noise</i>	83
Otto von Busch: <i>Provotypes and Provoprops</i>	93

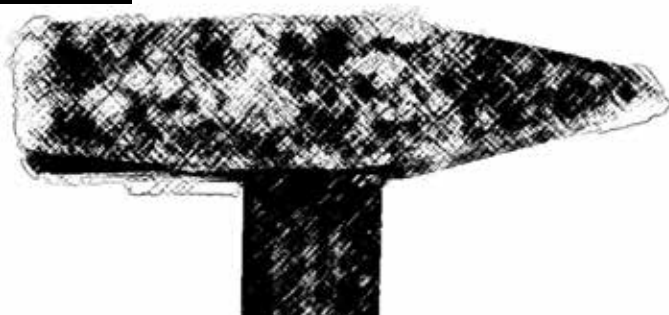


Provocation?

Some things provoke. We seem to often shy away from provocations, from “rocking the boat”, and escape to things that do not challenge us. The very etymology of provocation seems to acknowledge the incitement and inflammatory nature of the invasive notion of the other. Provocation, from the Latin *prōvocō* (“call forth, challenge”), “voices” something, it brings forth an affect which challenges the tacit and habitual. Provocation voices an opinion we prefer not to acknowledge. But design can take on various meanings of “provocation”: to *harass, transgress, irritate, annoy, taunt* and *insult*, but also to *egg on, incite* and *aggravate*. The provocation crosses boundaries, trespasses beyond what is considered appropriate. The question is how to best mobilize its force for the specific strategic purpose of the provoker.

The Provocative Products class at Parsons School of Design paired design practice with criticism and theory-based explorations, where the aim was to merge thinking and making into one cohesive integrated and provocative activity. Students from the Industrial Design MFA and Design Studies MA teamed up to examine historical cases of provocation through design, and also to develop own projects.

The overall theme came to gravitate towards Earth Day, environmentalist activism and sustainable design, with the playful approach to reinvigorate and make sustainability a little bit more provocative. Under the label of “EarthDaze,” the students created an account of examples and approached the theme of provocation to better understand what it can mean to be provocatively “critical” and “speculative” in the current realm of sustainable design.



Case:	Martin Luther's hammer
Context:	<p>Martin Luther entered the Order of St Augustine in 1505, a time where much of European civilization was dominated by the Roman Catholic Church. The church taught that faith alone did not suffice to justify a person. Rather, salvation was achieved through faith only if it was active in works of service and charity. The Pope sent commissioners throughout Europe to promote indulgences as an opportunity for parishioners to receive absolution from sin and to raise funds for a new basilica.</p> <p>Luther believed that God alone could grant absolution from sin and absolution was granted through faith alone. He criticized indulgences as a corrupt practice practiced by a powerful church on a population that relied on church leaders to teach them God's instruction.</p> <p>The account of Martin Luther defiantly nailing his 95 Theses to the door of the All Saint's Church in Wittenberg has been discounted as inaccurate and even untrue, but the legend of this provocation has become known throughout history as the catalyst to the Protestant Reformation. It serves as a symbol for both challenging established authorities and the power of the individual.</p>
Props:	95 Theses, hammer, and nail



Goal/Aim:

Luther's aimed to incite discussion and change within the Catholic Church regarding the sale of indulgences (as means of forgiveness of sins) and the doctrine of justification through faith alone.

Luther's doctrine of salvation through faith alone completely changed the sorting mechanism for determining who was accepted by God. The power to take hold of salvation moved from something coordinated and distributed by church leaders to something that everyone could take hold of.

Technique:

Luther wrote his 95 Theses in Latin, the language used by the church rather than the common vernacular. Luther's 95 Theses were written in a humble, questioning manner. They did not accuse but rather encouraged discussion. Luther distributed his theses to church authorities for scholarly discussion rather than a sweeping challenge to the church.

The 95 Theses were translated to German, copied via printing press, and widely distributed throughout Germany and Europe.

Alliances:

Martin Luther's efforts in Germany were mirrored in other parts of Europe. Huldrych Zwingli and John Calvin played significant roles in coordinating parallel Protestant movements. Later, as the reformation took off, Luther's ideas became explosive political material, intensifying already tense relationships and alliances.

Effects:

Luther's 95 Theses served as a catalyst to the Protestant Reformation. Within weeks of their posting, the 95 Theses had spread throughout Germany and eventually to Rome. The church declared Luther's teachings heretical and excommunicated him. This led Luther to continue his writing as well as to translate the Bible into German. The widespread distribution of Luther's ideas and a Bible in the people's vernacular fueled a movement of Protestant Christians to separate from the Catholic Church.



GUILTRIP

MEAT

Nearly 20% of all
edible meat ends
up in landfills

24

Thursday

Nov

Guiltrip a daily activation of eco-guilt. →

We all do things that are bad for the environment. Guiltrip is a daily tear away calendar that wants to help us remember each and every one of those things. With 365 days of enlightening, inspiring and altogether quite depressing facts, Guiltrip reminds us of the harmful effects of everyday actions.

The calendar does not offer alternatives to these actions, and in that sense implicates us regardless of our way of life. While most of us eat bananas, for example, few of us consider the environmental toll these seemingly benign fruits take on the land and the workers which work it. By including a range of actions — from dietary habits and the production of waste, to personal hygiene and travel — these facts make us consider that there is no one, easy solution to the impending environmental calamity. The calendar also includes facts that are out of the hands of consumers — such as infrastructural and systemic actions — as a way to reference the broader global context.

Every guilt-ridden page reveals another thing about which to feel compunction. The daily rip then becomes an exercise in progressive futility, designed to overwhelm the user by the hopelessness of the unfolding ecological crisis. Perfect for the desktops of vegans, hybrid drivers, environmental activists, and anyone who enjoys the perverse pleasure of knowing that despite their virtuous actions, ultimately it's all for naught.

Why do people do things that harm the planet? One easy answer is that they do so unknowingly — this calendar might partially be tasked with addressing that issue. It is not, however, that simple. To ask people to abstain from the necessities and comforts they have access to, merely because they are in some infinitesimal way damaging the Earth, is a naïve and futile pursuit — a sentiment Ayn Rand expressed less than a year after the first Earth Day celebration. “The lowest human tribe cannot survive without that alleged source of pollution: fire.” By distributing guilt through environmental prop-

aganda, she argued, “the ecologists are the new vultures swarming to extinguish that fire.” (Rand 1971: 3)

Rand and the ecologists she accuses in her speech seem to recognize that the power to dissuade action relies more on affect than it does on awareness. Environmental activists, when they cannot reference laws to meet their concerns, turn to emotional pleas—guilt, shame, humiliation, embarrassment. Although they overlap with one another, these tools leverage perception in different ways. In the eyes of the law, for example, the lines around guilt are clearly drawn. Their limits cut fiercely across emotion and action — a person can be considered guilty of a crime regardless of whether or not there was knowledge of wrongdoing, no matter how the person feels, perhaps even in spite of the actual event. In the law, guilt is dealt out by a public system, but an individual is free to feel shame, or not.

Guilt and shame, however, operate in different ways outside the margins of legal definitions. Shaming is aimed at bodies, sexual practices, social status, adherence to religion, conditions of subjective personhood more than objective faults, making it a controversial tool of social regulation. Meanwhile, a personal feeling of guilt is not contingent on a public awareness of wrongdoing. Guilt becomes a self-evaluation, an internal relationship between a person and his or her actions.

Shame can therefore be avoided if an action is done in secrecy, but guilt is inescapable. Shame, because it harnesses the consensus within a group, is based on debatable judgement, and thus open to being challenged by individual dissent. Guilt may also derive from shaming and social norms, but only those internalized as a personal set of values. Both can be deeply felt, but shame is assigned to a person by the public, whereas guilt is assigned to person by him or herself.

Eco-guilt is therefore a powerful tool of self-regulation, but even this is complicated by human nature. Because guilt is so associated with morality and suffering, its affect can be destructive as much as it is constructive. Nietzsche argued that destructive, ‘bad’ guilt is a paralyzing phenomenon, one that by sheer virtue of making a person aware of what is wrong, can deform self-perception. (Nietzsche 1996) To deal with guilt is such a personal ordeal imbricated with secrecy and confession, that to work through it can even produce the illusion of self-absolution — i.e. it is enough to feel guilty and suffer because of it to ‘absolve’ a wrongful action.

Stephen T. Asma makes the case that in a post-religious world, eco-guilt has, to some extent, replaced self-regulation. “Instead of religious sins plaguing our conscience, we now have the transgressions of leaving the water running, leaving the lights on, failing to recycle, and using plastic grocery bags instead

of paper.” (Asma 2010) There is a tension between guilt and action the effects of which are difficult to foresee, which Asma argues begs the question of whether or not guilt can be a productive strategy for environmental activism, “we have a tendency to become neurotic and overly anxious, especially when we are regularly told, via green marketing ploys, that each one of us is responsible for the survival of the planet. That’s a heavy guilt trip.” (Asma 2010)

Calendar as a Gesture of Time

While on the face of it the calendar aims to simply organize and keep track of time, its history presents a complex node which collects ecology, politics, and culture. Perhaps the earliest version of something akin to the contemporary Gregorian calendar was developed by the Egyptians, circa 3200 B.C. For the ancient civilization prediction at the scale of the year became imperative since the Nile underwent annual swelling from June till October, a phenomenon with profound implications on agricultural production. Tracking the water level of the Nile in combination with modified lunar months, the Egyptians developed a 365 day calendar with five intercalary days added to twelve thirty-day months. This year was divided into three four-month seasons which were based on the rhythms of agriculture: a season of inundation when the Nile flooded the land, a season of growth and sowing right after the water receded, leaving rich silt, and a time of harvest, when the water was low and deficient (Boorstin 1983: 6-7).

If this Egyptian calendar makes an example of timekeeping for the sake of large scale food production, the etymology of the word calendar shows another dimension of the calendar’s maintenance of social structure, namely as a schedule of finance. The Romans referred to the first day of the month as the Calends, based on the Latin *calare*, to call out, since the priest astronomer would call out the start of the month at the first sighting of the new moon (“Calends” 1728: 143). Since all debts were also due on this day, they were usually kept in a book called the *Kalendaria*, essentially making this calendar a record of fiscal accounting.

For several millennia the calendar in use throughout much of Europe was the Julian: a scheme based on the Egyptian 365 day version, and promulgated by Caesar through his Empire. This calendar however, did not properly compensate for the fact that the true solar year — the time it takes the Earth to make a full orbit around the Sun — is slightly longer than 365 days. As a result, by the middle of the 16th Century, Easter and the March Equinox had moved out of alignment by 10 days, prompting Pope Gregory XIII to realign the civic calendar with the solar cycle while establishing a more refined sys-

tem of leap years. Thus, by human decree, 10 days were simply eliminated from the record. In a Europe rife with religious sectarianism, a decree from the Catholic Pope was ignored by the Protestant countries, with Britain and its colonies only making the official switch to the Gregorian calendar in 1752. The renowned American almanac maker Ben Franklin made light of such temporal machinations when he remarked that “It is pleasant for an old man to be able to go to bed on Sept. 2, and not have to get up until Sept. 14” (qtd in: “The Geopolitics” 2016).

It is the Gregorian calendar which is in widest use today, undergirded by a complex system of rules:

Every year that is exactly divisible by four is a leap year, except for years that are exactly divisible by 100, but these centurial years are leap years if they are exactly divisible by 400. (“Introduction to Calendars”)

Those who use other schemes, like the lunar Islamic calendar or the luni-solar Jewish or Indian calendars must nevertheless accommodate those on the Gregorian, pointing not only to the lasting effects of imperialist, Euro-Centric bureaucracy, but also, via the variety of timekeeping schemes, to the utterly constructed and fragile nature of time.

The calendar as an object, then, is a materialisation of this schematized abstraction. And the tear-away version borders on a mockery of such precious record keeping. Rather than organizing the year by months, or seasons, or weeks, the tear-away calendar packs the year into a bound stack of days, of 365 isolated, paper moments. It is easy to imagine a film montage which intends to show time passing, opening with a fluttering of pages from a tear-away calendar as they float into the ether. If the tear-away calendar objectifies time, rather than making time’s edifice more rigid, it emphasizes the soft malleability of the construct. In Thomas Mann’s novella *Disorder and Early Sorrow*, Dr. Cornelius must often tell his hapless assistant to “to leave the Calendar alone, for he tends to tear off two leaves at a time and thus to add to the general confusion” (Mann 2010: 203). This calendar thus becomes not only a register of time passing, but unlike the month/week at a glance calendar, the daily tear-away relies on the user to advance the register in order to keep it current. The user takes on the timekeeping responsibility and becomes an active participant in rather than just a passive observer of the advance of time.

This action, the daily tearing away and discarding of the proximally recent past becomes an incremental extraction from the materialised corpus of the year. With a severing jerk a daily destruction of the past inaugurates a new, daily present. Allowing the user to literally turn over a new leaf every day, the tear-away invites optimism and possibility, even while this possibility is pro-

duced in a violent gesture: the rip, the tear, the jerk. The elimination of the day-gone-by can be accomplished either by a lateral pull across the body of the user, breaking the perforations in linear sequence. Or, to make a more emphatic statement directed at the past or the forthcoming moment, a page can be jerked downward suddenly, severing the leaf in an instant, perforations be damned.

The Guilttrip daily calendar is an overwhelming mass of facts. If guilt is its intended affect, than its mechanism of enforcement might be the sheer volume and variety of information. Each day is marked by the certain and inescapable recognition of one's unwavering destruction of the earth, symbolized by the micro-destruction of time. Like the coffee and yogurt we might enjoy every morning, which is no doubt contributing to the planet's ultimate demise, the calendar is intended to become a part of one's morning ritual. Days are paired up with salient facts and tied to collective holidays for maximum individual impact. Considering buying chocolate for your loved one on Valentine's Day? Better think again. Wrapping up gifts on Christmas Eve? Shame on you — your actions have contributed to the nearly 2 million tons of waste produced by wrapping paper alone during the holiday season. Not to mention the nearly 30 million trees which sacrificed their lives for these gilded ambitions.

Indeed, as the 365 days of facts attest, there's plenty to feel bad about. But while the calendar may traffick in guilt, it also more subtly asks us to consider how knowledge of one's misdeeds translates into a commitment to act otherwise. As theorist Eve Sedgwick asks, "What does knowledge do — the pursuit of it, the having and exposing of it, the receiving again of knowledge of what one already knows? How, in short, is knowledge performative, and how best does one move among its causes and effects?" (Sedgwick, 124) While, as she notes, it's a fairly banal observation, that "knowledge does, rather than simply is," it is worth further attention in light of this book's title, *Earth Daze*. When a general malaise has settled in around April 22nd, and our attitudes towards the planet more broadly, the need to ask how knowledge becomes performative, or more specifically how it becomes provocative, seem acutely relevant. Environmental discourses are laden with both guilt and empiricism. The observable, trackable, countable "fact," becomes further evidentiary proof of our earthly neglect. The Guilttrip calendar does not pose to interrupt this flow of information but rather to create a new interpretative, or if you like performative, framework for its consumption.

Media theorist Anders Hansen argues that "environmental issues do not ordinarily articulate themselves." (Hansen 1991: 449.) However, in its routine

announcement Guiltip is exactly such an ordinary articulation. A simple matter of procedure and daily tactile event, the calendar brings environmental knowledge into an intimate relationship with its intended recipient. In so doing, guilt becomes normalized. Like most our domestic objects, the calendar fades into the background of everyday life. The power of Guiltip thus lies not in its ability to shock, surprise, or amaze but instead in its humility — in its ordinariness. With each tear of a page, there is a simple recognition and reenactment of the ways we each take from the earth. Rather than a stultifying effect, guilt is activated to create the affective momentum for a certain ethics of avowal. The daily calendar becomes a means to remember that even in the quietest of moments there's something much larger happening.

GUILTY

MEAT

Nearly 20% of all edible meat ends up in landfills

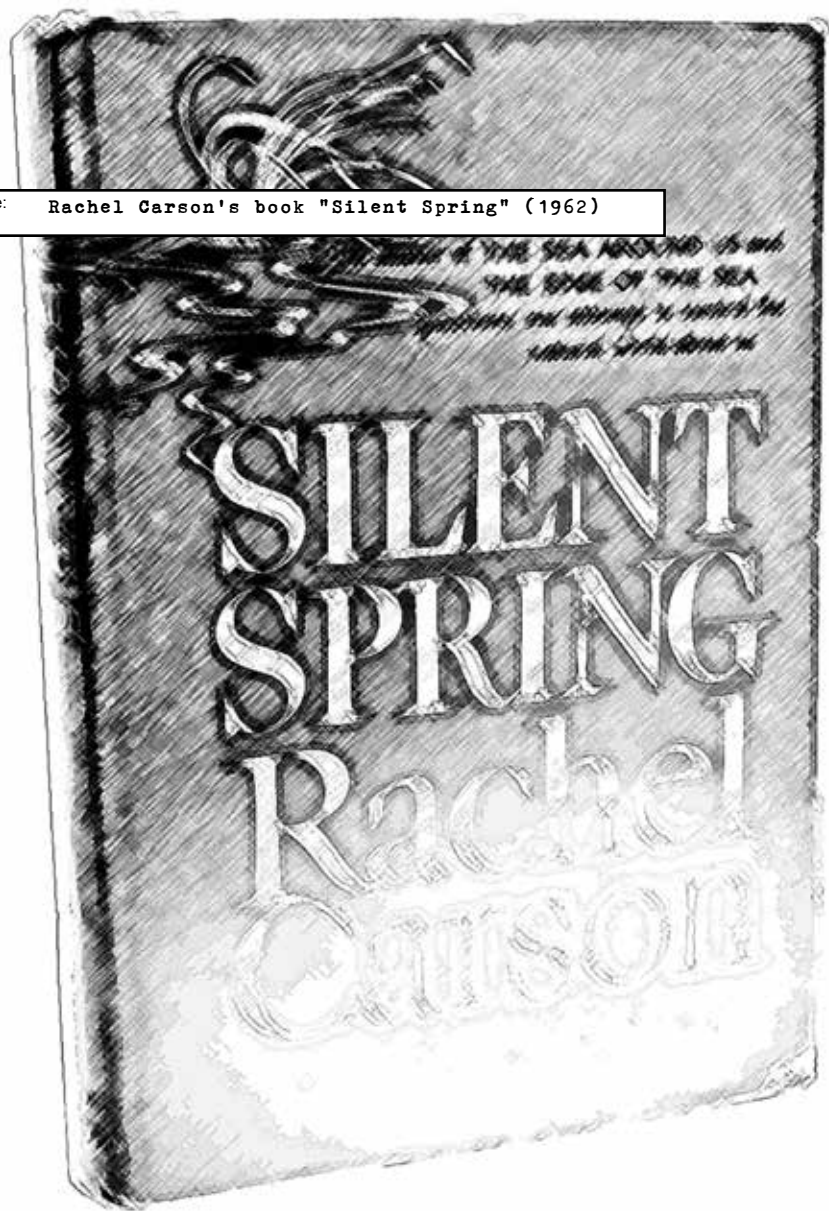
24 thursday
Nov

GREEN

PERMISSION SLIP



Case: Rachel Carson's book "Silent Spring" (1962)



Context:	Carson set off to alert the public to possible side effects of the intensive pesticide use at the time, in particular DDT. The period was seen to be a dark instalment of humans quest for power over nature, and Carson was the first to really challenge the broader society and question the methods that were being deployed.
Prop:	Published book and public advocating.
Goal/Aim:	Carson's aim was to highlight the health risks resulting from the excessive use of the pesticide chemical DDT. Health risks that went beyond humans and addressed facets of nature too such as water, land and air.
Technique:	Carson leveraged the power within shock. She did this by announcing a theory that she expected would shock 99 out of 100 people. It jolted a flourishing post-war America and forced them to question if their progress was coming at a price.
Alliances:	John F. Kennedy acknowledged Caron's work at presidential announcements and was on board in supporting the cause. He did so by funding research into her claims, which once proved truthful, had significant outcomes. Environmental Protection Agency (EPA) is an ongoing alliance to Carson that is a pillar of sustainability in today's society.
Effects:	Widespread acknowledgement of the resulting impact of pesticides such as DDT. This resulted in governmental activism on the fact, which produced changes in federal law by 1964; two years after the book was published. In 1970 the Environmental Protection Agency (EPA) was established as a result of increased awareness and concern regarding the health of water, land and air. In 1972 activists attained a ban on the use of and distribution of DDT. Carson ultimately started a revolution for the protection and acknowledgement of nature; highlighting that is isn't something for humans to control, mitigate or manipulate.



Melt: The Power of Touch and the Disappearing Ice Caps

Melt is a pairing of flatware constructed entirely out of ice. A set of molds allows for a fork and knife to be cast in a conventional freezer and used as the eating tools for a meal. Participants are fed foods that would have been historically difficult to preserve or radically different in preparation without the advent of refrigeration. Participants are not given any alternate utensils throughout the duration of the meal.

Touch is the most powerful sense for connecting the human body to the earth. It has the potential to return us to a foundational level of equilibrium that ties the human brain to its animal instincts. Contrary to its capabilities, however, touch has been historically low on the hierarchy of senses. While there are cultural shifts that sometimes cause an oscillation between vision and hearing as king, touch is consistently in last place. Yet, in a world that is dominated by consumerism and waste, an evaluation of the emotional power of touch could lead to a more understanding and environmentally connected future. Melt addresses one of our most pressing environmental issues, climate change and the melting ice caps. Through a sensorial and a challenging eating experience, it creates an intimate bond with an issue that sometimes feels far away.

Melt draws from the paradoxical reality that the ice caps are melting, and that ice production and refrigeration are some of the biggest perpetrators (DeConto and Pollard 2016). The ice trade is inexorably linked both to the evolution of our modern diets and the growth of globalization in the food industry. While refrigerated shipping allowed us to stray away from the salted, smoked, and spoiled, the fresh diversity it allows will be short-lived if climate change renders once prolific habitats inhospitable. Melt takes hold of these realities and speeds them up, it communicates the urgency and translates it into an evocative and sometimes painful physical experience.

Global Food Shipping and Its Harmful Effects

The European Commission predicts that shipping emissions will increase between 50% and 250% by the year 2050. The past ten years include nine of the hottest recorded years in history, which means that if you are under the age of thirty, you have never experienced a month that isn't hotter than the year prior. Carbon dioxide is responsible for 64% of man-made global warming and is recorded at levels 40% higher in our atmosphere than the pre-industrial age (Ec.europa.eu 2016).

Currently, 70% of the food we eat passes through what is known as the “cold chain,” a supply chain that is formed by an unbroken series of scientifically temperature-regulated shipping containers and storage units. The cold chain primarily uses a system of reefers, these are cargo shipping containers that use highly-engineered thermal and refrigerated packaging methods to regulate the perishability of the shipments. This delicate balance of science and logistics is responsible for the safe transport of our food products including produce, seafood, meats, frozen foods, as well as pharmaceutical drugs and other chemicals. While these goods comprise the majority of refrigerated shipments, reefers are often used for non-perishable goods that require temperature and humidity regulation, things like antiques, batteries and other electronics are also shipped in reefers as precautionary methods for protecting investments. The current methods of transport for refrigerated goods through the cold chain include trucks, railcars, cargo ships, and air cargo (Rodrigue 2016).

Refrigeration and its Radical Reshaping of Our Diet

While the official ice trade is cited as beginning in New England in 1806, man has been engaging in ice harvesting and small-scale ice production for thousands of years. As early as the second century, Egyptians were using evaporation methods to chill water and Indians were pushing these methods further to yield small batches of ice (Anderson 1953). Preceding these man-made methods, ice was viewed as an abundant natural resource, ancient cultures including the Greeks and the Chinese harvested ice from the mountains to use in food production (Wilson 2012).

The advent of widespread in-home and commercial refrigeration radically changed the makeup of the human diet. With the advent of the first commercial ice-making machine in 1854, and domestic refrigerators becoming available in the early twentieth century, our diets rapidly diversified. With cooling technologies giving us the ability to eat a wider range of fresh fruits, vegetables, and meats, we were no longer forced to pickle, salt, or smoke our food for preservation. A surprising number of foods may not have existed if

the refrigerator had been available earlier: bacon, parmesan, cheddar, hard salami, sauerkraut, confit duck, sausages, smoked salmon, kippers, salt cod, sardines, raisins, prunes, dried apricots, raspberry jam, and marmalade exist because of pre-refrigeration food preservation techniques (Wilson 2012).

The tension between the year-round readily available “fresh” produce that refrigerated shipping offers and the environmental implications of the shipping industry and power consumption of in-home refrigeration is polarizing. The fresher produce is hugely responsible for a healthier human population, a more immediately visible benefit. However, with the negative effects of the emissions and power consumption, we are causing peril to the very earth that produces this fresh produce. Compromises will have to be made and changes will soon be felt.

Touch As a Tool for Understanding

As we measure the immediacy of diet concerns against the immediacy of the environmental concerns, the human factor is still winning the battle. Beyond an economic analysis, an underlying cause of this trend can be attributed to human senses. We are driven by our responses to our environment, and many of the rapid technological advances that have occurred in the past century can be traced back to our desires to feed these senses.

While Aristotle later makes the case in *De Anima* that seeing and taste are forms of touch, his earlier hierarchical system stands as a symbolic mapping of the world’s journey to our current environmental state. Aristotle ranks the senses, in order of importance as: vision, hearing, smell, taste, and touch. As we have developed the earth and become more and more technologically proficient, we have seen what are considered as our most human senses cause the most destruction.

As the singular sense found universally among all earth animals, touch is a sense of being. Aristotle, having made this analysis concluded that this universality rendered touch the lowliest of all senses. While touch acts as the qualifier for “being,” all the other senses including, vision, hearing, smell, and taste, contribute to “well-being.” “Well-being” separates sentience levels, with humans being the top of the pyramid.

Aristotle connected our senses in a series of system correspondences. The element he attributed to touch was earth (Stewart 2002). The grounding power that our sense of presence and touch has links the body naturally to the earth. As we have let our other senses drive our lives, we have lost touch with the earth and what it provides.

A vital step in environmental awareness is removing the distance between those who cause harm and that which is harmed. To demonstrate the closed loop of cause and effect. Touch has the power to achieve this.

In the case of Melt, the visceral feeling and eventual pain of the chill against the hands, the reddening of the skin, the disappearance of the very modern tools that are meant to aid in eating, and the puddling of the water on the plate distilling and watering down the meal, provide an expedited and magnified view of what our eating experiences will be in the future. Beyond that, the disappearance and visual altering is felt profoundly, the melting away and the feeling of absence confronts the participants.











Case: "Raw" milk co-ops

Context: Milk that is unpasteurized is considered illegal in many states (New York included). Advocates of unpasteurized milk contend that pasteurization kills off essential nutrients in milk, and that when milk is handled properly by caring farmers pasteurization is unnecessary.

In this ideological context, "raw" milk functions as a prop of resistance. By offering this illicit product to consumers, "raw" milk co-ops put up a material, as well as an ideological affront to what they perceive as a technologized, sterilized, standardized, industrial food system, which has become so defiled, that the only kind of milk this system can actually bring to market is one that is ultra-pasteurized and homogenized.

Prop: "raw" (unpasteurized, unhomogenized) milk

Goal/Aim: To distribute "raw" milk as a critique of the industrialized food system as well as a representation of alternative foodways.



Technique: The technique is to offer a consumer food product that is actually illegal, and thus makes a statement about the illegitimacy of the law, as well as of the system that relies on that law. Additionally, to execute this strategy of distributing "raw" milk - since it is illegal in NY to sell raw milk outside of the farm - the co-op will designate informal on-street delivery locations, where customers can come and pick up their orders.

Alliances: If the club is a co-op, then it would have to make partnerships with dairy farmers. Additionally, since raw milk in this context is very much a commodity brined in ethics, and this circulates its message through consumption, the movement needs consumers

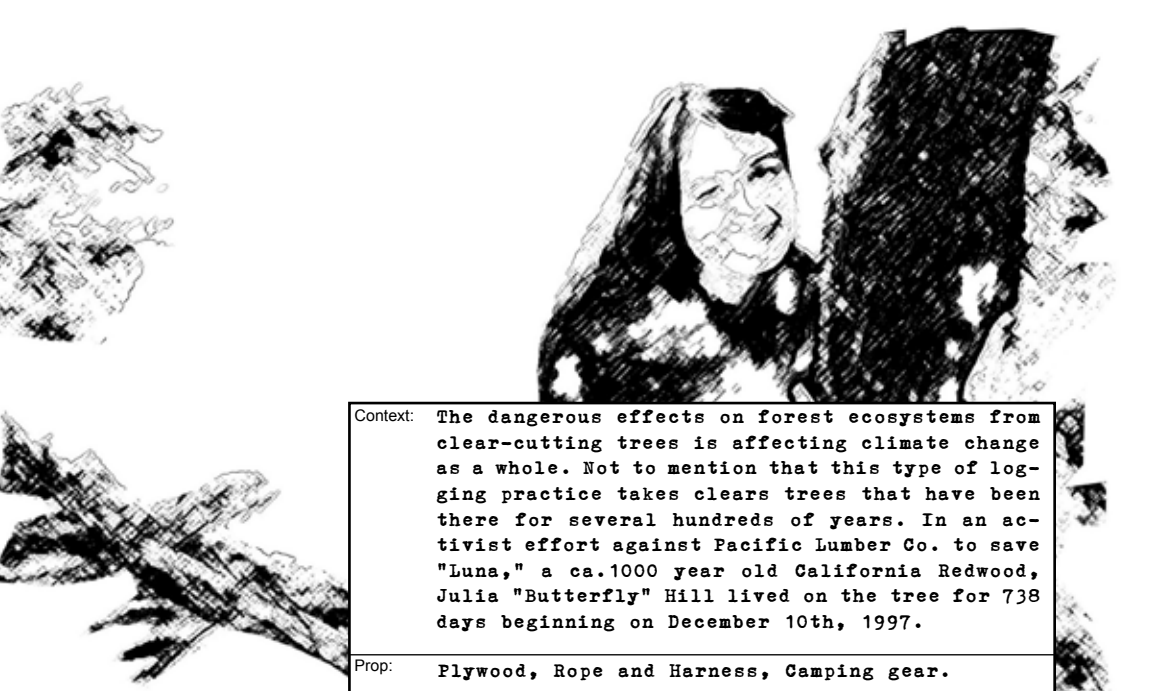
Effects: Similarly minded consumers who also disagree with the prohibition against "raw" milk (and likely perceive the prohibition as symptomatic of a broken food system) - now have access to the product, even in urban areas, where access to farms may be limited. By spreading the dairy consumable, the ideology of critique also spreads.

The rhetorical aims of the "raw" milk movement - often aimed as high as the entirety of the industrial food system - are grand. The potential for impact however, and this appears to be readily acknowledged, at least by consumers, is limited to a niche market.

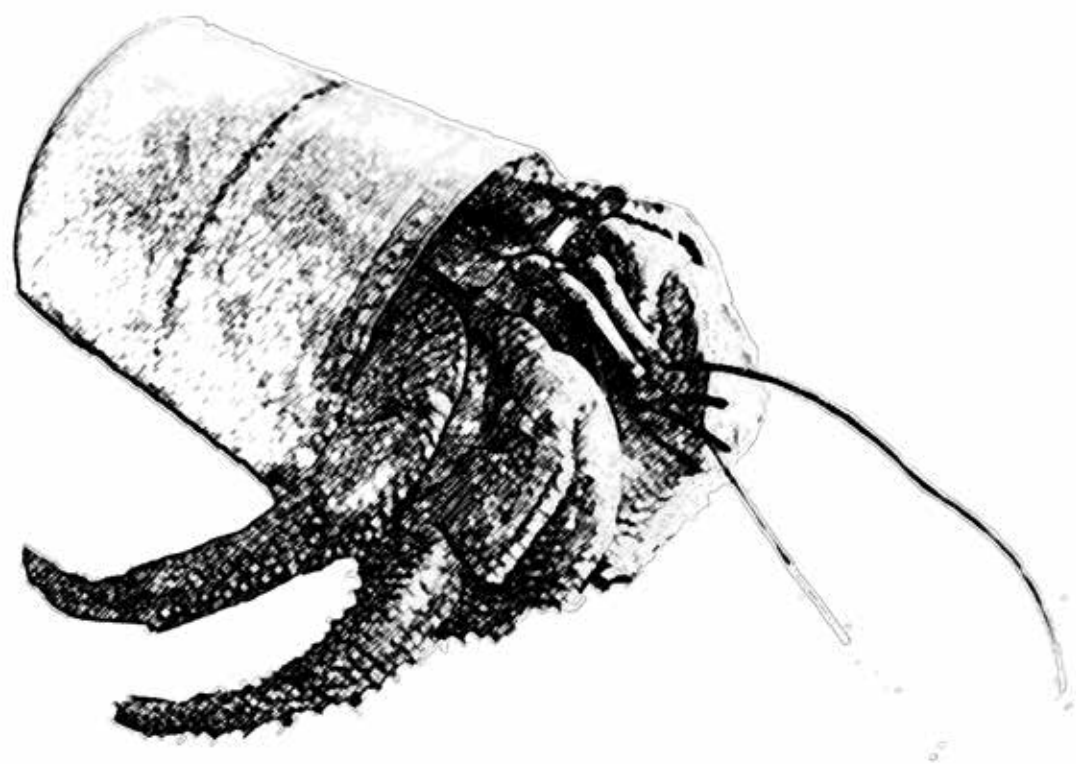


Case: Julia Butterfly Hill's tree platform





Context:	The dangerous effects on forest ecosystems from clear-cutting trees is affecting climate change as a whole. Not to mention that this type of logging practice takes clears trees that have been there for several hundreds of years. In an activist effort against Pacific Lumber Co. to save "Luna," a ca.1000 year old California Redwood, Julia "Butterfly" Hill lived on the tree for 738 days beginning on December 10th, 1997.
Prop:	Plywood, Rope and Harness, Camping gear.
Goal/Aim:	To preserve the forest ecosystem and make logging companies more conscious of cutting down historic trees and the effects of clear-cutting trees.
Technique:	Civil Disobedience: Making the tree into her home, for 738 days, Butterfly cut herself off from society in an act of civil disobedience, where her body was used as barrier to the logging company cutting down Luna and the surrounding trees.
Alliances:	Earth First, Radical Environmental Advocacy Group and many environmentalist supporters.
Effects:	<p>Her effort made it so activists raised \$50,000 on behalf of Earth First which was given to the logging company as compensation for the money lost selling the tree for luxury wood. The company gave the money to Humboldt State University for sustainable logging research.</p> <p>Pacific Lumber Co. agreed to not cut trees within a 200 ft. buffer zone around Luna, and in giving the donation to logging research, Pacific Lumber Co. made steps to become more sustainable.</p> <p>Julia Butterfly Hill's actions stopped immediate deforestation effort and contributed money towards more sustainable logging practices.</p>



Cups for Crabs Initiative

The Cups for Crabs Initiative engages the current crisis facing hermit crabs to raise questions around humankind's relationship to both animals and the environment. Since the Industrial Revolution, humankind has made an unprecedented impact on the natural environment. Modern society is built upon a system of products made of materials that cannot be naturally processed by the environment. The best solution available is to contain these products in landfills. Sadly, much of humankind's garbage never reaches the landfill—rather it ends up in the natural environment, impacting animals and the earth alike. These negative impacts motivate people to organize and take action. Immense resources and effort goes into undoing damage and preventing further damage. What is design's role in this pattern? Design paradoxically takes part in advancing both the problems and the solutions.

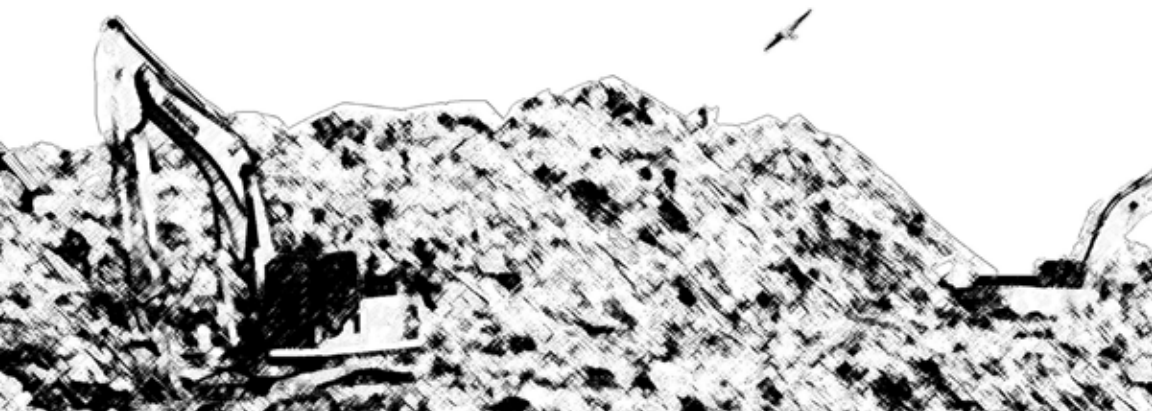
This project aims to probe the paradox of design as a power for good or for evil. Hermit Crabs are facing a massive shelter crisis as a result of pollution and the optimistic power of design has come to the rescue. Its efficiency and modularity have established the Keurig K-Cup as a hallmark of modern design, yet the K-Cup is responsible for the introduction of unthinkable amount of unrecyclable plastic into our environment. This project merges these two opposing cases of design to create a seamless design solution. The solution prompts questions about what kind of products we want to enter our environment as well as our relationship to the natural world and other sentient beings.

So we make a nice cup of coffee using the ever-amazing K-cup. We throw the K-cup in the trash can and for us, we have done our bit by not littering it around. The trash is then hauled into big trucks that take it away from our surroundings but this is not where it ends, it doesn't magically vanish into thin air, it lands in landfills. "Americans generate trash at an astonishing rate of 4.6 pounds (2.1 kilograms) per day per person, which translates to 251 million tons (228 million metric tons) per year [source: EPA]".

A landfill is a structure designed to isolate and bury trash with a layer of soil on top. One might wonder this is the solution but no, burying it and covering it over with a layer of soil doesn't stop the emissions into the atmosphere and water. The biodegradation inside the landfills results in contaminated air emissions that are very harmful to human health. It has been proven that people living close to landfills are more likely to suffer from heart and lung diseases. The most hazardous toxin that is released in these emissions is methane which is formed by the decomposition of organic matter.

Another way that landfills cause the planet and in turn us harm is by polluting the groundwater. Groundwater pollution is the bigger concern we are facing as a result of building landfills. Carcinogenic leachates or the emissions that drains from the landfills has too many toxins that pollute the freshwater pathways, also called ground, water making it hazardous for human health. The EPA has clearly stated that majority of the landfills have leaks or are at the risk of leakage, so burying our trash is definitely not a good way to go.

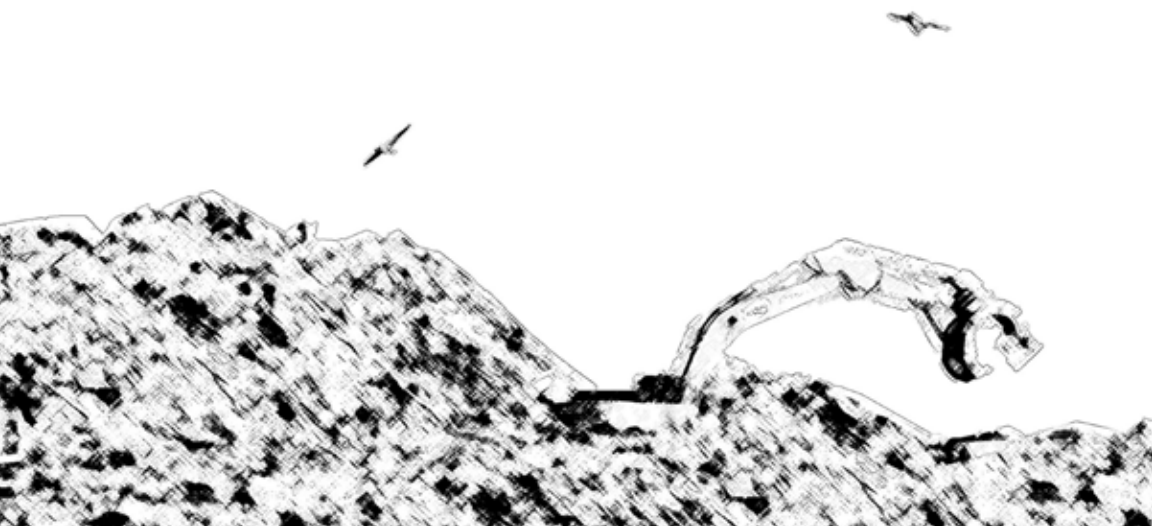
One cannot talk about water pollution without mentioning the Great Pacific Garbage Patch. Marine debris makes up the garbage patch and the trash or litter that makes its way to the ocean makes up the marine debris. "The Great Pacific Garbage Patch, also known as the Pacific trash vortex, spans waters from the West Coast of North America to Japan. The patch is actually comprised of the Western Garbage Patch, located near Japan, and the Eastern Garbage Patch, located between the U.S. states of Hawaii and California." (Anon, 2014) The garbage patch is not exactly trash floating in the ocean. The debris in the Great Pacific Garbage Patch is made of trash that is non-biodegradable, for example many kinds of plastics simply break down into smaller bits called microplastics that make the water seem like a thick and viscous soup mixed with other garbage.



The biodegradability of garbage brings us to the fastest, easiest, most efficient way to brew a cup of coffee, yet they're one of the worst products ever designed- the K-cup. One in three American households owns a pod based coffee machine. There are enough K -cups in the world to circle it 10.5 times according to the popular Kill the K-cups video and publications like Quartz have called it 'the most wasteful form of coffee there is.' Only 5% of K-cups are made out of recyclable plastic, rest are made of number 7 plastic which can't be recycled. This plastic photodegrades into tiny particles in landfills and seeps into our drinking water, groundwater and thereby getting integrated in the food we eat. Maybe it's time to make that cup of coffee less harmful to the planet and ourselves.

Paguroidea, more commonly known as Hermit Crabs, are currently facing a dire housing crisis. Hermit crabs are born with a thin exoskeleton which leaves them vulnerable to hungry predators. Hermit crabs typically use retired shells from marine gastropods to provide shelter. They find a suitably-sized shell and drag that shell everywhere they go. Eventually hermit crabs grow and can no longer fully retract into their shell. This begins the search for larger shell.

Presently, 30% of all hermit crabs are unable to find appropriate shells (Demaray). The cause of this crisis is understood to be the result of human pollution and collection of shells (Pickrell). Hermit crabs will use whatever they can find to provide shelter. An abundance of images have surfaced on the internet of hermit crabs using human trash as surrogate housing. This documentation shows hermit crabs using toothpaste caps, light bulb bases, broken bottle tops, jars, and various plastic vessels to protect themselves.

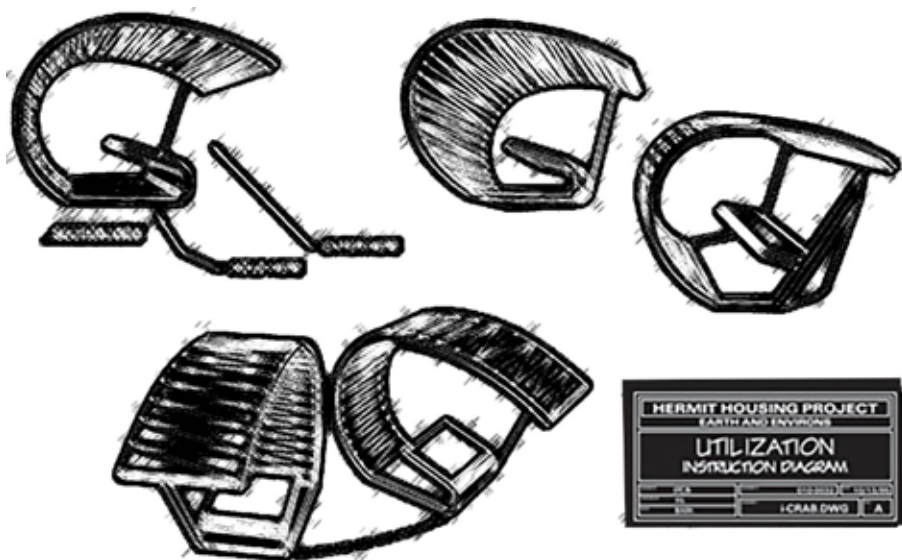


Elizabeth Demaray, a professor of design at Rutgers University, has designed a 3D printable hermit crab shell. The shell is made of plastic which has the benefit of being lightweight—much lighter than the calcium carbonate shells hermit crabs traditionally use. Plastic is a strategic choice because of its high strength-to-weight ratio as well as its non-biodegradability. Hermit crab communities always recycle their retired shells, so a plastic shell has the potential to be a better design solution than the traditional solution nature provides. Plastic shells have the potential to meet the housing needs for many generations of hermit crabs. The long spiral of a mollusk shell has been eliminated in order to further reduce weight. Instead, a single tab juts into the internal volume of the shell which the hermit crab can grab on to with its holding claw. The plastic shells can be printed in any color which provides additional advantage. Shells going to North American hermit crabs would be printed in beige plastic in order to blend in with the sand and provide camouflage. The beta-version of Demaray's project yielded favorable results. She conducted an experiment where plastic shells were made available to a small population of hermit crabs. She found that 25% of the crabs migrated to plastic shells within two months.

Miles Lightwood, an artist in residence at MakerBot, is conducting a similar effort called "Project Shelter." Miles and MakerBot are encouraging their community of designers and makers to join their efforts towards a solution to the hermit crab housing crisis. Miles and his team have been exploring materials and forms on hermit crabs in search of the perfect design solution. They have conducted similar experiments and demonstrated hermit crabs' willingness to adopt manmade shelters.

Shelters designed by humans appear to be an optimal and successful solution to the hermit crab housing crisis. Yet they pose a glaring problem that neither project addresses. What are the ethical ramifications of introducing more non-biodegradable plastic products into the environment? Documentation shows that hermit crabs are resourceful enough to acquire and adapt human trash to meet their housing needs. Would not a better solution be to mimic the hermit crabs' ingenuity and divert our own waste streams to solve this problem?

We have identified Keurig K-Cups as an abundant waste stream that can be redirected to meet this need. As previously stated, K-Cups cannot be recycled without disassembly, and even then, the plastic used to manufacture K-Cups cannot be recycled in most countries. The advantages for shelter afforded by plastic and capitalized upon by Demaray's and Lightwood's efforts are shared by the K-Cup. The K-Cup solution does not require the massive funding efforts involved in producing new plastic shells. The effort can be crowd-sourced by empowering the millions of people with the knowledge necessary



Elizabeth Demaray, 3D printable hermit crab shells.



to retrofit a K-Cup for a hermit crab. Keurig has received significant criticism for the K-Cup design and is working on an environmentally-friendly redesign. Surely Keurig would be willing to provide whatever funding would be necessary to make this project come to life.

The K-Cup shelter both solves the hermit crab shelter problem while reducing the negative impact of environmentally monstrous K-Cup design. This kind of dual-purpose design solution is a rare find in a complex world of competing interests. Its obvious and seamless simplicity is airtight. Failure to execute this plan could be considered irresponsible considering their significant ecological footprint.

K-Cup hermit crab shelters are a win-win, yet propose some troubling questions about the world we live in. Even if these are a great design solution, do we want to dress up the natural world with our trash? Do we want our beaches to be covered in used K-Cups? Is it responsible to make animals adapt to our waste as a form of recycling? The K-Cup shelter thinks about the world as a whole, plastic-inclusive, ecology. Products that were meant for humans can then be used by animals without question. This situation works because both humans and hermit crabs are similarly creative with their environments. But, when it comes to human irresponsibility and dealing with the products influencing man-made climate change, this means the animals bare the ethical and physical burdens, too--perhaps even more so. Because waste is not limited to landfills, many different species have already begun to incorporate the waste into their lives--such as birds using trash for nests. Animals are learning to adapt to the conditions. Often times, when we see pictures of animals incorporating trash into their habitats or as tools, we feel badly because we know this is not "natural."

Accordingly, our sympathetic response to these images is a result of our guilt for making animals live this way. What would it be like if we had to confront our garbage the same way these animals do? What would it be like to live in a world where everything in our landfills could be repurposed to meet our real needs? What if all new furniture was required to be made from discarded plastic bottles, toys, and appliances? In this kind of scenario, we would be constantly confronted by our garbage--placing us in the same dilemma as animals in polluted areas. Human needs would be met at a functional level, but who would want to live in that world? Sadly, dystopian towns made of trash exist and real people live in them. Guiyu, China is one of these places. Guiyu is one of the largest processors of electronic waste in the world (Huo et al.). Guiyu landscape has been destroyed by the chemicals used to recover materials from electronics and replaced with a new landscape. Images show endless mountains made of waste with rivers flowing full of coal and chemical waste. Children play in front of colorful backdrops of circuit boards,

making due in this harsh environment (Time, *China's Electronic Waste Village*). The processes and materials used in Guiyu have been demonstrated to be responsible for significant health issues among both adults and children. Yet, the economy of this town relies on this niche labor tied to the recycling business.

This town provides a near-future scenario, because the conditions these people live in looks like something out of dystopian films about the future. It is at this juncture that this critical design finds its strength and its weakness. This project looks at real living conditions and works to reframe them in a way that is positive by showing adaptability and ingenuity. Ezio Manzini states that:

...the designer's ultimate responsibility can only contribute to the production of a habitable world, a world in which human beings do not merely survive but also express and expand their cultural and spiritual possibilities. The term habitable, referring to the environment, indicates a complex existential condition that cannot be reduced to its functional component. It is a condition arising from the intersection of a multiplicity of questions rooted in the anthropological and social nature of the human race (Manzini 1995: 220).

It is important for designers to ensure that they design for a habitable world, thinking about the afterlife of products and what responsibilities come with bringing certain products to the market. Living amongst waste hinders the spirit because of its cultural connotations. To force people or animals to live under such conditions creates a condition in which they are constantly adapting and making the best out of other's discarded items. While, it may be rewarding in some contexts, to live a life in which this is the only parameter creates a power dynamic between cultures. The culture who must use the waste becomes dependent on what the dominant culture disparages. Therefore, they begin to lose the ability to create anything on their own or explore other possibilities. Living cannot be reduced to the functional. Humans social nature, in which they are curious and creative, needs a healthy environment to promote overall well-being.

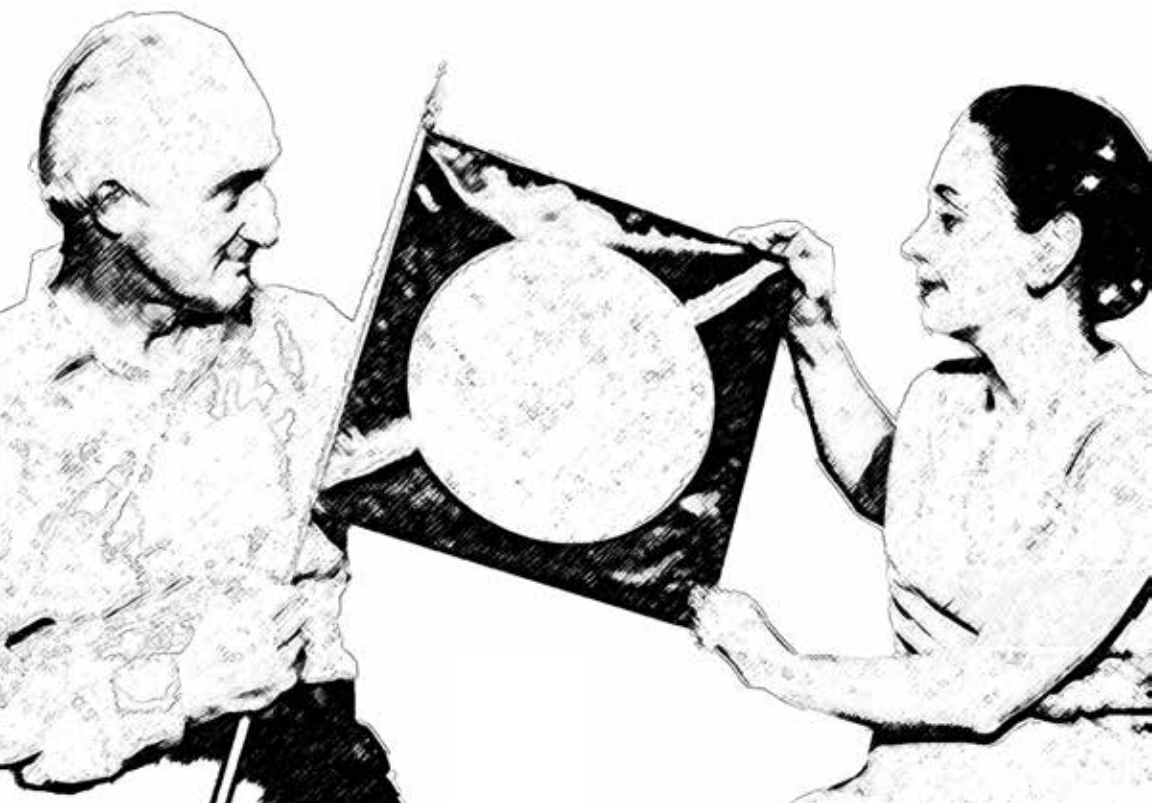
This brings us to the question of how designers should approach waste. If designers must create habitable environments that promote a holistic sense of well-being, beyond the functional, how can they approach waste? It is problematic that designs that approach wicked problems, such as pollution, often end up targeting the wrong audience. While it is important to find other uses for K-Cups, it is not that hermit crabs who need to think about the ethical choices that come with their morning cup of coffee. Thus, when design is didactic it must think about who it is educating. Yet, because hermit crabs and humans do coincide, it creates a jarring experience when a person is confronted by a hermit crab using a K-Cup as a shell. This highlights how

much the human and animal environment overlaps--something we forget when we consume at high levels. Animals are forced to live under the conditions humans create and make the best out of them. While there are ways in which this is functional, because there is a housing shortage for crabs, it is also disheartening to see the loss of a natural habitat. The K-cup does not carry with it the aesthetic patterns of a shell. Instead it highlights how it adapts to living in a human wasteland.

To conclude, hermit crabs join a growing list of species that hold up the mirror of our own uncontrolled consumption by making us see what we are doing to the planet. As a species that helps us see pollution levels and one that depends on our ingenuity, the hermit crab offers us an opportunity to redeem ourselves. By accepting our K-Cups, they receive a new home that will last as long as the Earth does and be able to hand their K-Cup down to future generations. Thus, the hermit crab extends to us the possibility of revisiting the way in which humans interact with animals in the anthropocene. Since it is impossible to go back to a pre-climate change world, what are the ways in which we can tackle the questions about our quality of life together. Taking from the damage already caused and trying to reclaim waste and appropriate its uses to solve new problems is a start, but we must also think about designing more sustainably in the future. Finding a balance between these two conditions will yield more surprising results and hopefully to world where the human and the natural can continue to collaborate.



Case:	Earth Flag (by John McDonnell)
Context:	The 1972 "Blue Marble" composite photograph of the earth taken aboard the Apollo 17 spacecraft is one of the most widely referenced photographs of all time. Following "Earthrise" the first photograph of the earth taken aboard the 1968 Apollo 8 mission, "Blue Marble" came to stand as a symbol of human discovery and marked a clear point in the path to information globalization. In 1969, environmental activist John McDonnell designed The Blue Marble Earth day flag to present to the United Nations to be considered as the symbol for the organization.
Prop:	The flag itself both in full flag form and miniature.
Goal/Aim:	McDonnell's goal for the flag was to stand as a symbol of hope, global unity, and peace. He maintains that it is the one true flag for all of humanity. Designed to be featured in the Whole Earth Catalogue, a radical environmentalist catalog to garner support for equilibrium of nature.





Technique: The first iteration of the flag was a simple two-color silkscreen on blue fabric. The white represented clouds and the blue represented oceans. He purposefully excluded land masses as to erase the symbolism of territories and boundaries.

In 1969, McConnell founded World Equality, Inc. (WE), a social justice organization that carried the slogan "Unity in Diversity." One of WE's main functions was to sell and promote the Earth Day Flag. The flag stood both as an emblem of the cause as well as a legitimizing factor in what McConnell considered a legal and national entity. Beyond selling the flag, he handed it out at rallies, fundraisers, and sit-ins.

Alliances: McConnell relied on the precedent of nationalism and citizenship in the creation of his flag. He subverted the meaning of a flag as a symbol of exclusivity of citizenship. He instead used it as a icon of universalism, an action that would have been far less effective if it wasn't for the tensions caused by the Vietnam war.

Effects: McConnell's flag went on to be instrumental in the founding of Earth Day in 1970 and still stands as a symbol for environmental awareness and global unity. In 1975 the Earth Flag was flown on the south pole and is flown each year at the United Nations during their Earth Day celebration.



Human journey to Mars

Since NASA's robotic Curiosity rover landed on Mars 2012, interest in space travel and exploration has only increased. In 2013, over 200,000 people applied for a one-way ticket to Mars, as part of the pioneering Mars settlement. Large interest in space has led to increased space-related funding. Theories about the viability of asteroid mining, interstellar space expeditions, and colonizing habitable planets, has driven the Space economy to new heights. While we dream of new horizons, in the name of progress, we also search for refuge for our species in the wake of irreparable damage to our Earth as a result of human activity. Are we not wise enough to preserve our planet instead of searching for a new one?

The Dutch foundation *Mars One* is prepared to offer tickets to Mars for pioneering Earthlings to settle the red planet. The journey of 52 million kilometers will take eight months. The caveat is that no one can return. The technical logistics are much too complicated to orchestrate, the costs astronomical.

It's 44 years since humans walked on the moon, and we have yet to send anyone to the Mars. Mars One, however, adamantly intends to colonize the red planet. Twenty-four people will settle Mars in 2025. These twenty-four people will spend the rest of their lives as the first Martian colony. According to Mars One more than 200,000 people from all over the world applied for the journey. One of the final 100 selected candidates is Andrea Boyd. As a researcher for the European Astronaut Centre in Cologne, where she coordinates the research of the European ISS module, she is more qualified than most to understand the complexities of space travel and planet migration. She communicates with astronauts of the International Space Station (ISS) on a daily basis. Boyd is 30 years old and has passed all medical entrance tests that are required to complete (Boeing & Rauner 2014). It is her dream to join the mission to Mars.

Mars One worked on a detailed plan that foresees that the first communication satellite lands on Mars in 2016. In 2018, a rover will arrive that will scan

the surface of Mars to find the best spot for the human colony. It will then remotely set up the Space Station in 2020 and prepare the Mars village. In 2022, the first crew consisting of four humans will fly to Mars. Five other crews will follow each following two years. The journey to Mars will take eight months so that the Mars newcomers will land in April 2023, at which point, a return to earth is impossible.

Mars One is planning to create a Reality-Show around the journey to Mars. Like this, they hope to gain high advertising revenue that refines a part of the mission. Bas Lansdorp M.Sc. Co-Founder of Mars One said in an interview: “We will finance this mission to Mars by creating the biggest media event ever – everybody in the world can see everything that will happen in the preparations” (MO 2015). The entire project is estimated to cost about \$ 6 billion, which as of now is set to be privately funded through investors and private donations.

The future Mars inhabitants have to be trained well and intensively prepared before their mission to Mars. The mental strength, necessary for this journey, is inconceivable. To leave one’s family and friends as well as one’s primal connection to planet earth appears absurd and terribly risky. Crews will film participants during every step of their preparation. The life of the future Martian settlers will be watched and examined every step of the way. First interviews of the selected top 10 are already available on the Internet. The romanticized videos show beautiful pictures of the Earth-bound lives of the participants. In these interviews, they answer intimate questions about their sex lives and their partnerships. Sex on Mars will not be possible as pregnancy and childbirth are too complicated to manage on the mission. One can also argue that what makes us distinctly human is our capacity to bond and contemplate nature. Our Earth is not only our home, but it is also essentially, what makes us. Nature, at least how we understand it, will never be available again. The nostalgia for earthly delights, in all its manifestations and permutations, is unavoidable.

Dianne McGrath is one of the Top 10 chosen travelers. She believes that moving to a new planet could become a recommencement for the human race. In a video shown on *The Guardian* website, she stated:

“What if we had a society again where you are very limited, where you are completely off the grid? Can we do this again? Yes, we can do this. We don’t have to keep making the same mistakes we are making on our planet. I would say Mars is an opportunity to make that difference in a way that is difficult to do here on earth. Sometimes you need to pull yourself out of the big picture to see the detail.” (The Guardian 2015)

Another participant says: “If we die on Mars, that would be great.” Words that someone who is closely related to our planet, its nature and environment cannot understand easily. Of course, a certain grand to curiosity may arise. Foreign planets and possible life on them might attract people. We earthlings might not be able to see positive change in our world. So why should we not give up the life on Earth and devote it to unknown climes? I claim, however, that common sense should prevent us to take us on such a journey. To die in Space, never seeing neither family nor friends again exerts enormous mental pressure.

Some have expressed criticism about the trip to Mars. Questions arose about how realistic a manned expedition to Mars is. Each element of this mission must be feasible: staff, equipment, organization, logistics, etc. The local supply requires years or decades of testing, experimentation, research and achieving the precise coordinates. If any of these elements does not is not precisely calculated and executed, the entire mission would be at stake (Paul 2016). On the red planet, circumstances may prevail that humankind is not equipped to handle. For example, temperatures can range from about minus 125 up to plus 35 degrees Celsius. Also, violent storms with speeds up to 400 km/h. can tear through their village and cause severe damage from which they may not recover. Space experts are highly critical of the plan because too many technical questions remain unresolved. Even Ex-Astronaut Ernst Messerschmid described the mission even as “suicide mission” (Klaus 2016).

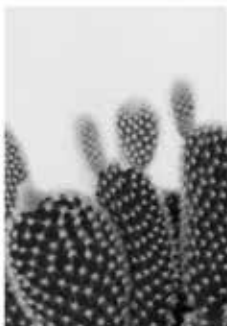
There are some reasonable and well-meaning motives to colonize other planets. Our history is laden with stories of exploration, and colonization. We on earth are at constant risk of losing our way of life. From limited resources, overpopulation, disease and destructive asteroids in our cosmic neighborhood, it seems quite logical to search for new worlds where our species can thrive once again. In the case of Mars One it is almost as if the participants want to, if fact, create a new Earth. Still the question remains, not how would IT be different if we would create a new Earth on Mars, but how WE would be different? Will we remember not to make the same mistakes we once did on Earth? Will we continue in search of habitable worlds while we exploit our current habitat?

We leave nature, but we cannot outrun OUR nature. Whether in space or on Mars, if we have not learned to care for what we have, what is to keep us from making the same mistakes again? The question no one seems to want to ask is what will become of our culture? If the human race starts to colonize planet Mars, what happens to culture? Culture in its broadest sense is everything that the humanity develops when survival is no longer a primary concern, and self-actualization can take place. The human race would most likely lose the diversity of languages and cultures and would inevitably lose the poetry

nature-given circumstances and earthly materiality behind. If we examine carefully, humanity has made great progress over the last few centuries. We have learned so much from nature, and we were able to derive technical conditions of natural mechanisms. We would colonize on a barren planet without oxygen and water.

Arguably, culture is not essential to one's survival, but science and medicine do suggest that physical and mental well-being increases by routine interactions with our natural environment. What will become of humanity when forced to live in protective suits, in a world without trees, oceans, or vegetation of any kind? Humans have a strong survival instinct. We are the dominant species because we can think, strategize, and solve complex problems. But, even with all capacity to think and survive, we've managed to change our earth quicker, and in ways, we do not fully understand. And, with hubris and in the name of progress, we seek distant land to start again.





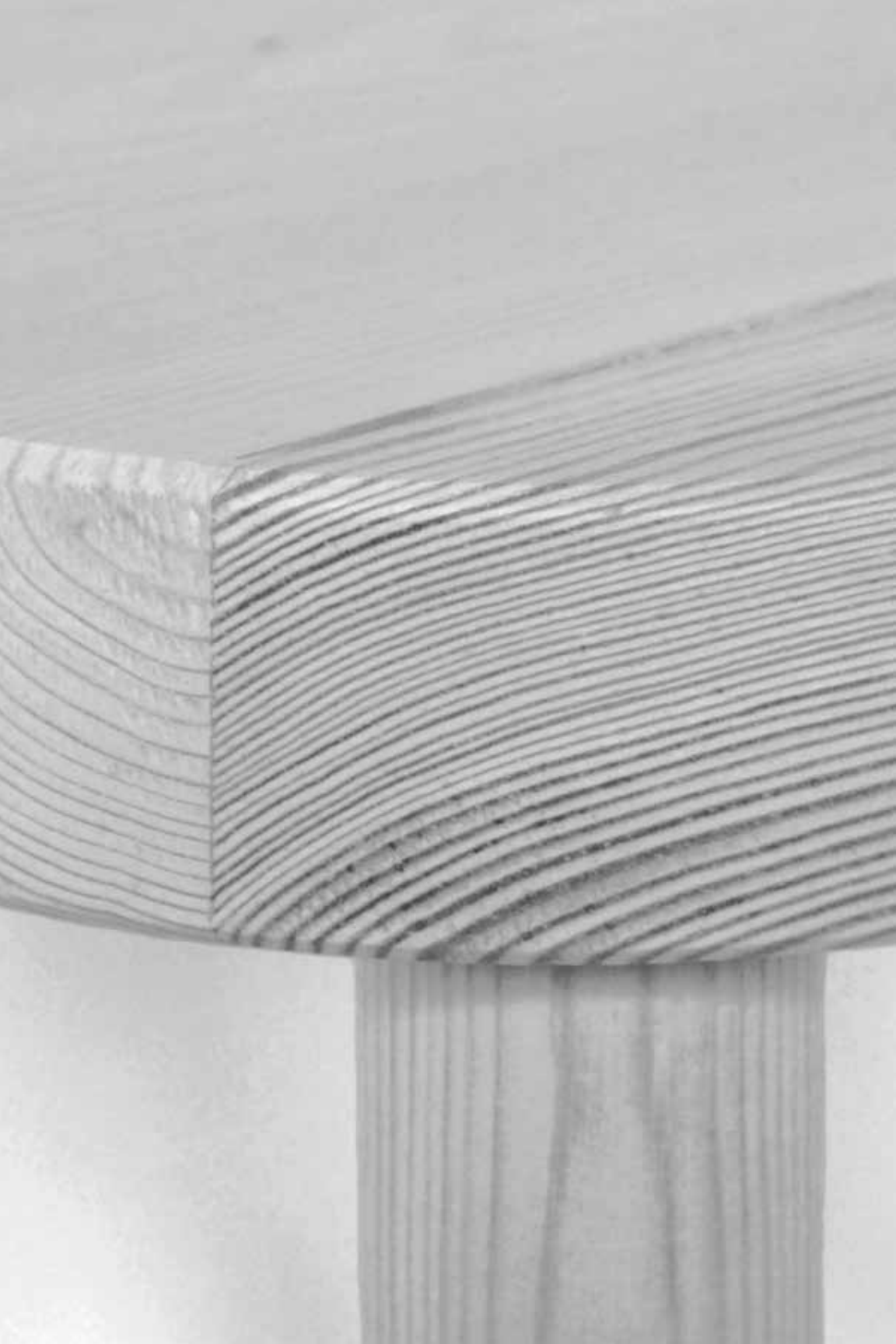
How Sad Life Would Be On Mars: A Tribute To Earthling Nostalgia.

Since NASA's robotic Curiosity rover landed on Mars 2012, interest in space travel and exploration has only increased. In 2013, over 200,000 people applied for a one-way ticket to Mars, as part of the pioneering Mars settlement. Increasing interest in space has led to increased space-related funding. Theories about the viability of asteroid mining, interstellar space expeditions, and colonizing habitable planets, has driven the Space economy to new heights. NASA's Orion program estimates that it can facilitate spaceflights for humans to Planet Mars in 2035. The Dutch foundation *Mars One* is also working to establish the first permanent settlement for humans on Mars in 2023 where the first team of selected humans will settle on the red planet for the rest of their lives.

Many studies posit that if human activity is not mediated to address issues of limited resources, environmental destruction, and climate change, our species will not survive. Humans will have to look beyond, in search of new worlds. But what awaits us beyond, we cannot know for certain. Can another planet ever replace the nature giving qualities planet earth provides? As mesmerized as we are with the red planet, can it ever truly feel like home?

This project addresses the possible migration of humanity to planet Mars, by providing a series of postcards that juxtapose nature-given materials from Earth and Mars. Permanently colonizing Mars means we must contemplate the emotional loss we will collectively feel once we no longer experience earthly materiality. These postcards are for communication between Earthlings and our Martian explorers as links between the old world and the new, and as reminders of the majesty and rarity of our blue planet.



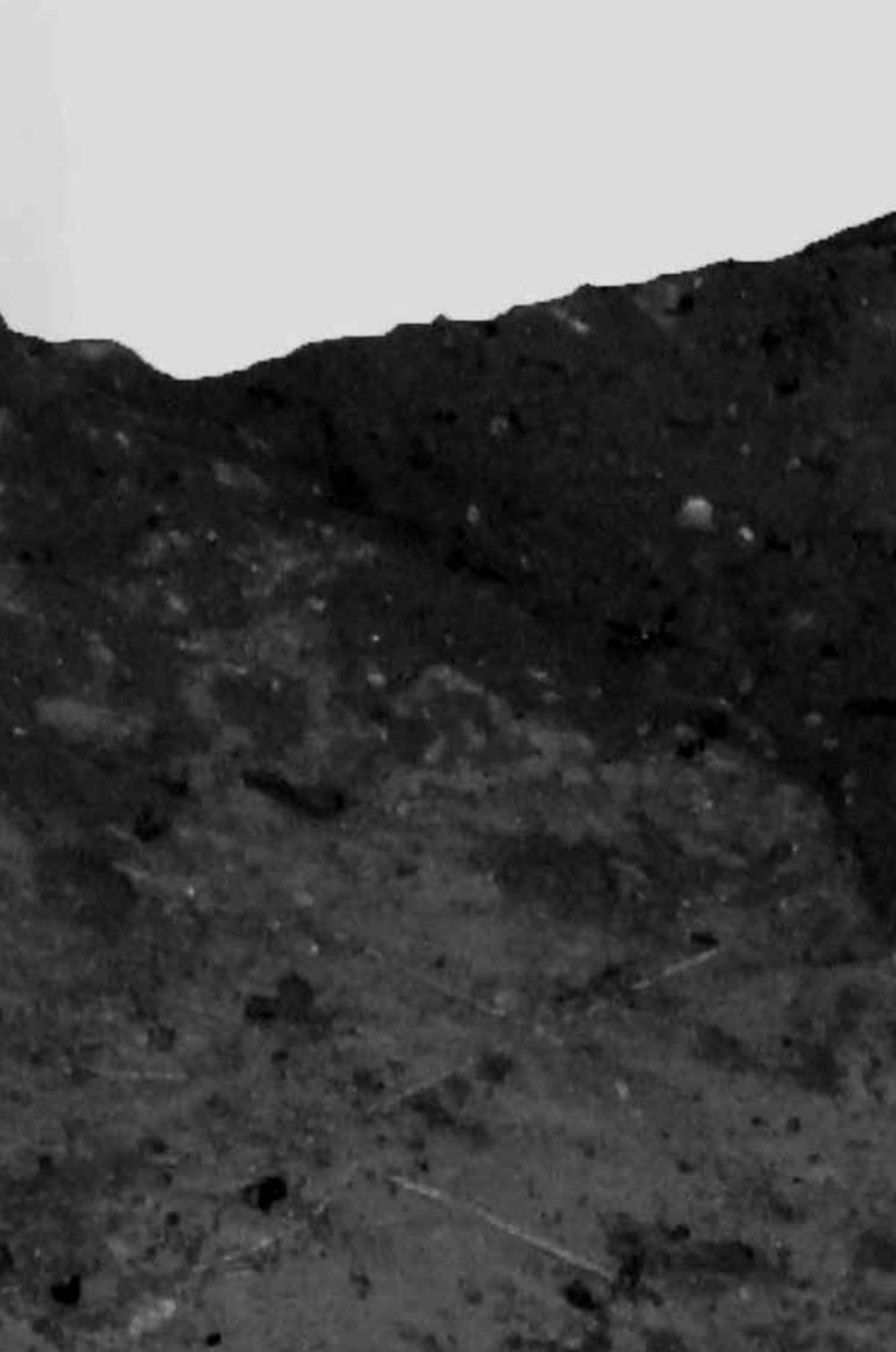






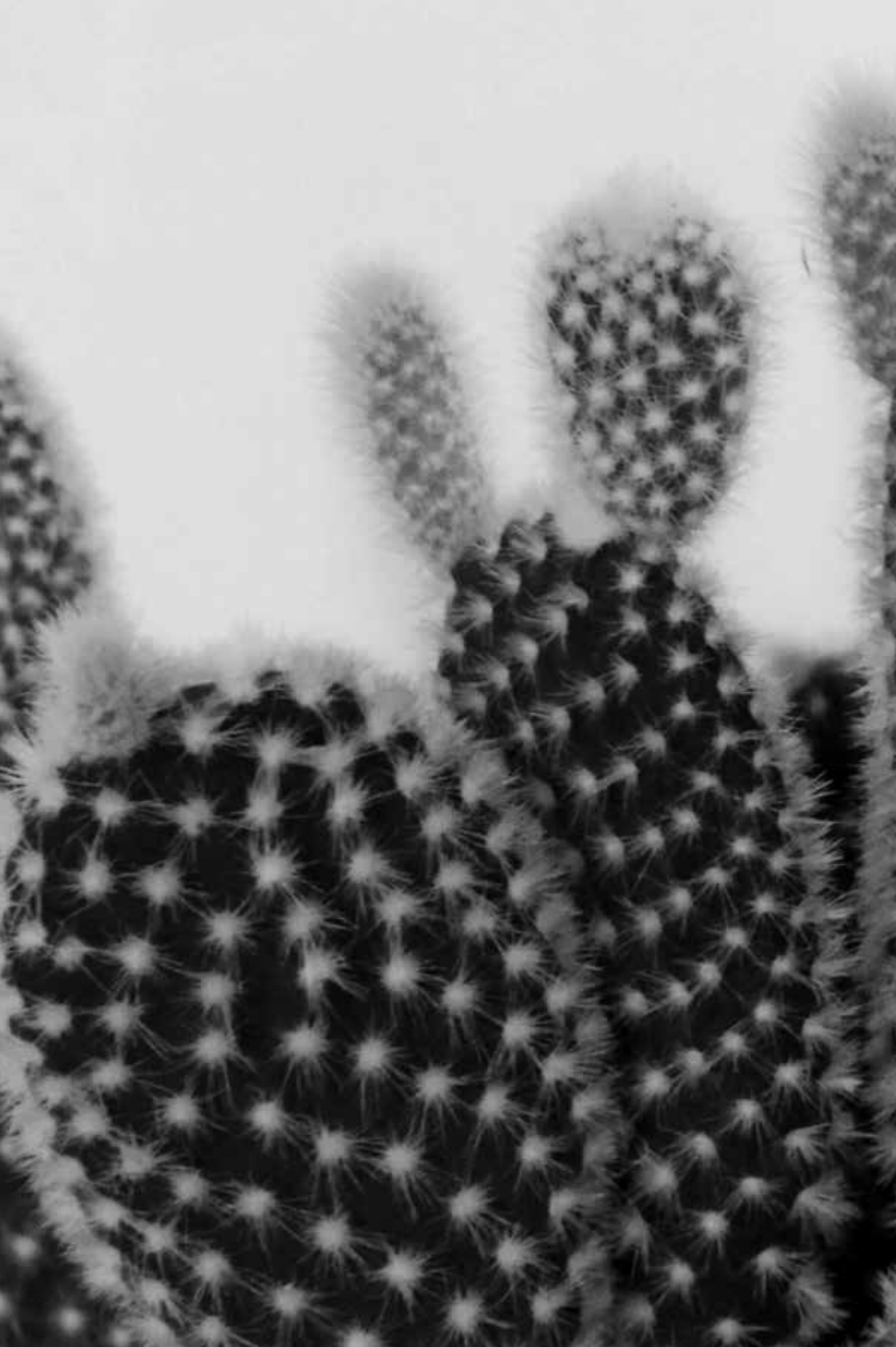



























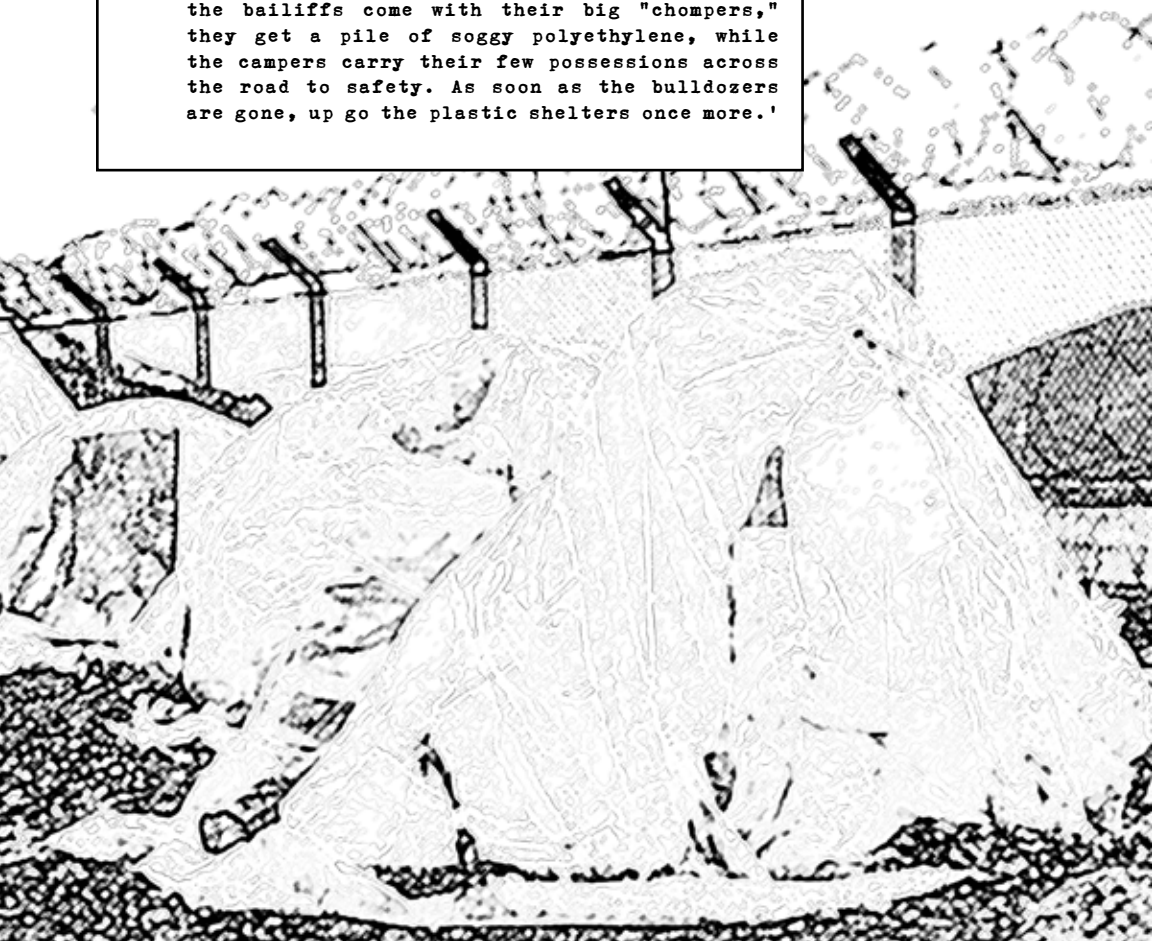
comparative case


Case: Land deed from Larzac Plateau protests

Context:	In 1971 the French government attempts to expropriate land from 103 farmers for the expansion of a nearby military base. After protests, the government initially attempted to negotiate for the abandonment of the protests.
Prop:	Protests and land deeds
Goal/Aim:	Originating in stopping the expansion of the military base, the protests eventually became a vehicle for challenging the growing militarism of the French government.
Technique:	By 'selling' 6180 tiny plots from the original 103 farms to the movements sympathizers, the protesters 'hacked' the bureaucracy. This made the expropriation significantly more difficult for the government as they had to legally deal with over 4000 landowners, as opposed to only the original 103.
Alliances:	<p>A former French General, upon leaving the military Bollardiere became an advocate of pacifism. His advocacy provided the cause with political legitimacy, and moved the cause toward a pacifist ideal that dealt more with rejecting militarism than the original expropriation of land.</p> <p>Hunger Strikes was led by Lanza Del Vasto, one of the movement's leaders, an Italian who was originally a disciple of Gandhi.</p>
Effects:	Together with non-violent protests the expropriation process was stalled. The move to expand the Larzac military base was abandoned when the new President Francois Mitterrand was elected 1981 and an arrangement was reached. However, the government continued funding other military bases instead. While the movement to defend land ownership was successful, whether or not the anti-militarist and pacifist movement was as successful could be debated.



Case:	"Benders"/Tents at Greenham Commons
Context:	Greenham Common (1981-2000) is a base outside the town of Newbury, where the U.S. Air Force was preparing for ninety-six ground-launched cruise missiles to be deployed in the fall of 1983. Women set out to walk 120 miles to Newbury in protest. Here, they established a peace camp that was active for 19 years.
Prop:	To endure the consistent evictions and attempts to dismantle the protesters, they set up plastic tents that hung from trees, or sticks. These "benders" made it easy for the women to move their encampments safely, and protected their possessions from the weather. Ann Snitow recalls in her article "Occupying Greenham Common," 'These "benders" can look squashed and ugly from outside; but the bent branches that support the plastic are often still covered with leaves, making the inside a bower. When the bailiffs come with their big "chompers," they get a pile of soggy polyethylene, while the campers carry their few possessions across the road to safety. As soon as the bulldozers are gone, up go the plastic shelters once more.'





Goal/Aim: To block British government's decision to allow US cruise missiles to be housed in Greenham Common.

Technique: Ephemeral camping sites allowed the women to evade the British government's attempts to evict them. Throughout 19 years, a constantly rotating population of women kept the peace camp active. Decentralization promoted individual acts of resistance could be performed with little planning. "Embrace the base," a worldwide effort enacted by 30,000-50,000 participants. Together they surrounded the military base and blocked all the entrances. Direct action from small affinity groups, Snitow explains, ranged from: "Let's get up at 4:00 a.m. and shake a big stretch of fence down." to "Once, at Easter: 'Let's dress up like furry animals and cover ourselves with honey, and break into the base.'"

Alliances: The protesters were feminist activists, who provided a male-free zone for expressing the views often overshadowed by other movements. Anarchists and pacifists alike set up camps around the base's entrances, which they named after the colors of the rainbow. Smaller coalitions of ecologists, trade unionists, and labour party members organized targeted actions in the camp. The peace camp's overall goal was closely tied to the Campaign for Nuclear Disarmament.

Effects: While the protesters did not incapacitate the missile base, they impaired smooth functioning of its operations for 19 years.



Asymmetric Hematology: A symbiotic blood transfusion with a Horseshoe Crab

The Horseshoe Crab is a living fossil, its ancestors existed 450 million years ago, and its morphology has changed very little since its first appearance on planet Earth. The first Homo Sapiens appeared on the planet roughly 200'000 years ago. Dwarfed by the dynamic history of the Horseshoe Crab but harnessing the anthropocentrism that dominates the human timeline, human culture has developed an asymmetric relationship with the marine anthropod.

In the 18th century, Atlantic Horseshoe Crabs were harvested in their thousands as fertilizer, steamed and ground into meal for the fields, and fed to hogs. In the 20th century, this came to be a process on an industrial scale around Delaware Bay, and Horseshoe Crabs were farmed in their millions. The fertilizer crab industry died off in the post-war years, but soon after fisherman realized crabs could be used as bait for large sea snails. In 1956 marine biologist, Fred Bang, discovered the presence of ameboocytes in the blood of the Horseshoe Crab, that could be used for the detection of bacterial endotoxins in medical applications. Safe to say, harvesting the blood of the Horseshoe Crab for the extraction of Limulus Amebocyte Lysate (LAL), has now become an indispensable process in the pharmaceutical industry. Frazier (2014) attributes the power behind the LAL reaction to the longevity of the species and the adaptive nature of surviving on the ocean floor for almost half a billion years. As the horseshoe crab's shell is not considerably durable, if it were to get a hole in it and toxins were to enter, the LAL in the blood cells would viciously attack the toxins by creating enzymes that clot the blood.

The biomedical bleeding process lasts 24 to 72 hours, with blood being extracted from the heart of the Horseshoe Crab - approximately 30% of their blood being taken. In more abrasive terms, biomedical companies remove adult horseshoe crabs from their natural habitat and place them within a lab where they are cleaned and strapped into position for their hearts to be punctured in order for the scientist to syphon a third of their blood. A brutal process that would never be considered in the realm of humanity, yet as a

society we are unopposed to such brutality as we publicise the benefits of their blood. The animals are then returned to the ocean, at a distance from where there were initially picked, in order to avoid rebleeding - there are, however, no cataloguing systems in place to determine whether a crab has been bled previously.

Approximately half a million Horseshoe Crabs are harvested annually, captured during late Spring during their breeding cycle where the creatures arrive on the beaches in their thousands. The industry does not disclose how many of the creatures die, though recent estimates suggest anywhere between 10-30% (Madrigal 2014). This figure does not include the number of crabs which are left disabled and/or disoriented by the harvesting process. New research suggests that biomedical bleeding affects the crabs' behaviours, leaving them lethargic, less likely to breed, and sometimes swimming against tidal rhythms (UNH 2014). Horseshoe Crab blood sells for up to fifteen thousand dollars per quart, on account of this figure, a black market has developed and many crabs are being stolen from the shores of the East Coast. Various horseshoe-crab experts have believe that fifteen thousand dollars may be too low considering the potential amount of LAL that could be produced from the quart of blood.

Additionally, Dr Wainwright, who was present in the discovery of the LAL reaction, has invented a LAL-based device that tests for bacterial toxins at a chromogenic level (Frazier 2014). Applications of such technology include testing for contamination on spacecraft prior to launch, as the result of an international treat must be free of microbes before leaving the Earth's atmosphere. Dr Wainwright also added that this new appropriation of LAL could ultimately test for new microbial life on planets other than Earth. Therefore, the horseshoe crab, to a certain extent, is helping humanity further its exploration of other planets and perhaps alternative solar systems. Once the test is deployable then the limits can be examined. So in a way, the horseshoe crab is assisting our race in finding alternative planets that may perhaps be habitable by humans and could eventually save us from extinction. With this understood, who are we to walk all over and exploit 450 billion years of development for narrow-minded personal gain? We may be the nail in the coffee for the horseshoe crab, and what a nail that would be: a nail that the vast majority of society would be completely oblivious to.

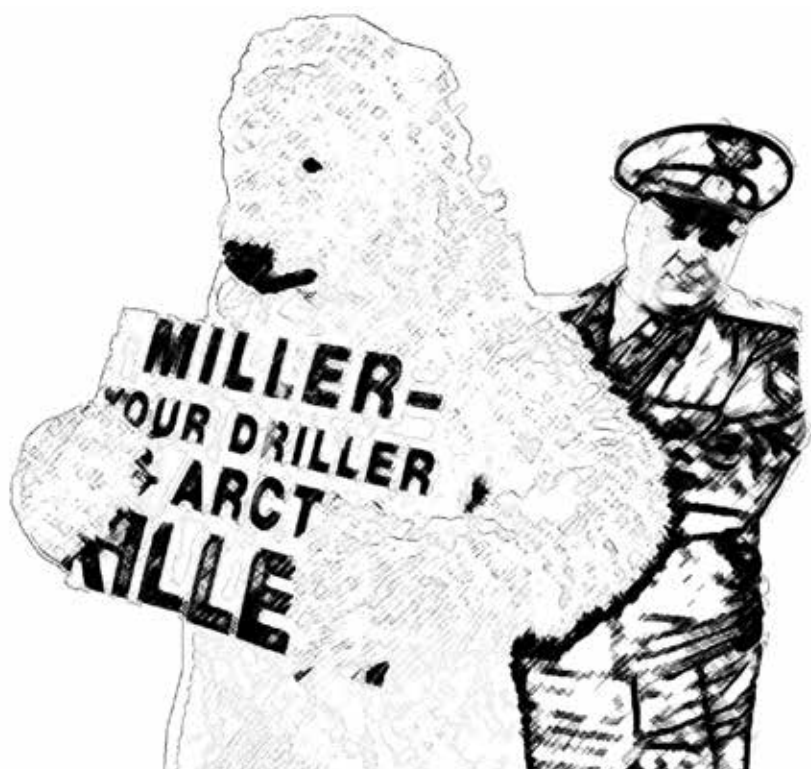
If this LAL substance is so valuable to us, and it is proving to be so, then why are further regulations in an attempt to conserve these animals not being implemented? Throughout recent years, the acknowledgement and appreciation of the horseshoe crab has most certainly increased, however, there is always room for further conservation efforts such as breeding programs and others alike. Glenn Gauvry, the president of the Ecological Research and De-

velopment Group, epitomizes this existential questioning in a simple quote: “There’s a truth in horseshoe crabs that we must be attentive to. They’ve been around for half a billion years; the jury is still out on us” (Frazier 2014). This level of yearning for human control over nature correlates with the developments in Rachel Carson’s ‘Silent Spring’ in 1952. Perhaps, similarly, the current positioning of the horseshoe crab requires an ecologist to draw attention to the issue like Carson managed to do. With that being said, society is far more adverse and aware in the realms of environmentalism in comparison to the post World War 2 world that Carson so abruptly jolted.

Horseshoe Crabs take to New York’s beaches in the month of May, and have been a part of the Rockaways’ ecosystem long before the Dutch settlers arrived on Manhattan. Less than twenty miles from the Empire State, the horseshoe crabs are an intrinsic part of the city’s biodiversity, a seasonal urban dweller, like many New York residents. As a species, we have developed an asymmetric relationship with the Horseshoe Crab, a parasitic symbiosis and a perverse mutation of the autonomy of the non-human.

This exhibit resets the balance, a transfusion of human blood to replace the lost blood of the Horseshoe Crab (that is typically a milky, blue color due to the presence of copper in place of haemoglobin) - perhaps we humans can learn to give back and replenish the resources we so freely plunder.

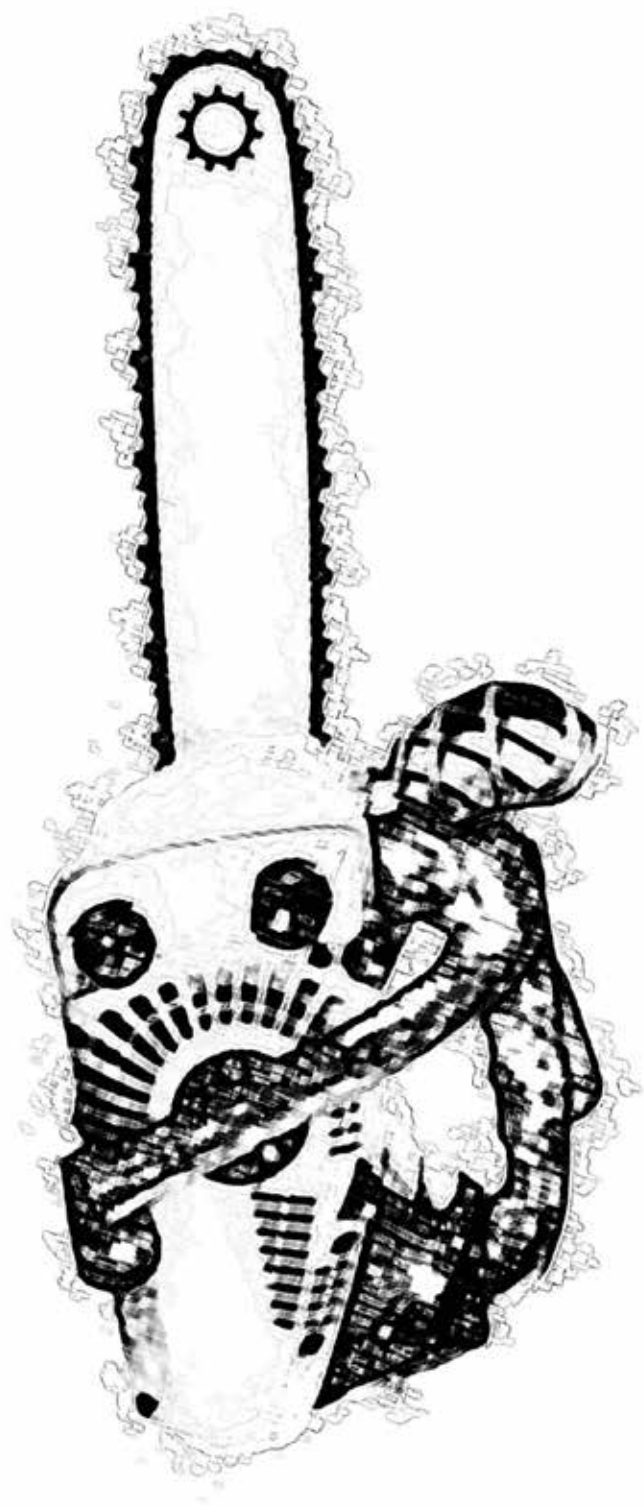




Case: Greenpeace polar bear costumes

Context:	Amidst increasing Arctic oil drilling and concern for its dangerous ecological effects, the polar bear has only further renewed its status as the mascot of environmental calamity. The bear has cropped up at protests across the world, including the Kremlin, the Paris Climate talks and a variety of other Greenpeace related events.
Prop:	Polar bear suit
Goal/Aim:	Whether to shock or disturb, to engender empathy or action - the polar bear costume underscores the true audience for today's protests - the camera lens. Made for photographs and snapshots, the bear costume becomes a means of repackaging and redistributing a singular act of resistance for a much broader audience.
Technique:	The polar bear costume is a striking example of the strange domestication of wild animals even as we might seek to protect them. Like an overgrown plush toy, the polar bears large button eyes are opaque - reminding us of John Berger's insistence that the crucial 'look between animal and man' has been completely severed, all but extinguished by modernity.
Alliances:	Ironically, the Polar Bear's presence at Greenpeace events worldwide, hints at many of the same processes of globalization that have fueled the very demand for arctic drilling the bear seeks to undermine.
Effects:	While the bear may be yet another tired example of the spectacularization of protests in the digital age, the presence of the costume may still be shifting other visual representations well. Today Coca-Cola's appropriation of this polar icon, are coming under increasing scrutiny. Thus the bear's use by environmental groups may provide an important leverage point in compelling major franchises to take at least minimal action on behalf of the animals that they commercialize.





Provocative Noise



It is quite hard to imagine sitting in a forest, as for most of us, forests are not a place we find ourselves very often. It may be easier however to imagine sitting in the middle of a park – let us use the Sheep Meadow in Central Park for now. What do you imagine yourself hearing? The laughter of children playing with their parents, the sound of a group of friends throwing a Frisbee – what else? Do you hear the wind, or the rustling of leaves in a tree? Do you hear the sound of a dog barking or a bird chirping? Do you hear the sound of an ambulance driving down 5th Ave? There is a very good chance that at this moment you are imagining hearing all of these things – they are all a part of what is called the acoustic environment. The things that we can hear within the acoustic environment are a part of what is called the ‘soundscape’.

The suggestions that I made of the sounds you might hear in Central Park were not arbitrary – they belong to the three specific subgroups that together form the soundscape. First there is the geophony, sounds the earth makes such wind, thunder or rain. Then there is the biophony, the sounds that all organic life forms make, such as dogs barking or birds chirping. Lastly there is the anthrophony – the sounds that humans make. This group has two subsections, as it includes the sound we make organically such as laughter or conversation (speech), as well as the sounds that come from the things that we make, such as an ambulance siren. The study of these sounds belongs to the field known as acoustic (or soundscape) ecology. (Pijanowski 2011)

Acoustic ecology is responsible for more than the simple recording and dissemination of sound however. It is also responsible for the analysis of the sonic data that is collected, sometimes in conjunction with biologists, urban planners or other professionals. In principle acoustic ecology is concerned with the recording and capture of sounds that may be considered unique or rare. As such a lot of effort is made by acoustic ecologists to preserve the environments that contain these rare or unique sounds. These preservation efforts now also extend to being able to assist with the classification of an

environment's health. Many different professionals coordinate together to assess the vitality of unique environments, however at times it is possible for these fields to 'overlook' important data.

It is this issue that forms the center of my project, a podcast that explores the role of sound in the analysis of environments. More over the podcast explores the potential for sound to be provocative, especially when in regard to the sounds that represent the deterioration of the earth. The main inspiration for this perspective comes from the work of acoustic ecologist Bernie Krause. Krause has been recording acoustic environments for almost 45 years, and has stated that today;

Fifty percent of my archive comes from habitats so radically altered that they're either all together silent or can no longer be heard in any of their original form.

Krause claims that this is a result of global warming, resource extraction and the introduction of anthroponic noise, as well as a collection of other factors.

In a TED talk that he presented in 2013 Krause displayed how acoustic ecology could be used to assess an environment's health, and how the data collected could reveal information overlooked by other methodologies. Krause presented a case study from Lincoln Meadow, located in California, where in 1988 a logging company introduced a new method called 'selective logging'. Using this method only every third or fourth tree would be cut down, instead of clear cutting the entire meadow. Krause recorded Lincoln Meadow both before and after the selective logging process took place, and found that while the meadow appeared almost visibly untouched, much of the geophony and almost all of the biophony had disappeared, suggesting that selective logging was just as detrimental to the environment as clear cutting.

The critique that can be made of this assessment however is that one is arguing that it is the 'silence' that is provocative. This can be an issue, as the capacity for the auditory sense to be provocative is just as dependent on the presence of a sensory stimulus as the visual sense, a sentiment that could be best explained by asking the question what seems more provocative? The image of a forest burning down, or the image of a forest once it has burnt down.

In thinking about the process of deforestation and the disruption of the acoustic environment, it is perhaps the introduction of anthroponic noise that can be the most harmful. To this extent the most provocative noise that can be the most harmful would be that of a chainsaw. In the podcast a clip of a chainsaw cutting down a tree is played, and the following is from the narration script;

With its starting ‘gurgle’ sound, the throttling of petrol entering the engine, and the low growl of its stasis activity, the chainsaw initially presents a sound that could be described as ominous or menacing. As it begins to increase its revolutions, the pitch rises, and as it comes into contact with the tree the friction adds a stereophonic character. However at this stage the chainsaw is creating two sounds; the sound of the chainsaw itself, and the sound of the tree being sawed through. It is hard to separate these sounds – they are intertwined to such an extent that they become one. It could be in fact this intertwining of sound that makes the chainsaw such a provocative product – the object is so connect with the act it is used for, that the two have become indistinguishable.

In staying with the character of acoustic ecology and looking for unique or rare sounds, the podcast presents a contrast between sounds that would be considered obviously provocative and others that would not. The main sound presented for this section of the podcast is that of a traditional Hindu funeral pyre. The narration for this section details the statistics involved with the process and how detrimental it is to the environment. However it does not detail the perceived ‘lack’ of provocation, which could be best explained due to the pyre being a form of geophony instead of anthrophony. We typically imagine activities that are unsustainable to involve man-made objects, and to therefore create anthroponic noise. However the funeral pyre could be simply mistaken for the sound of a fireplace and therefore not seem so provocative. However it is important to note that the sound a funeral pyre is in fact unique – not all ‘burning’ sounds the same. (Kermeliotis 2011)

This critique of sound as a method of provocation can also be done by examining two projects that were completed in 2007. Kalle Larr and Kaite Paterson both constructed systems (Laar’s in Austria and Paterson’s in Iceland) that would allow people to use their mobile phones to make a call and listen to the sound of a glacier melting. Both projects attempted to use this interesting form of acoustic ecology as a method of environmental provocation. While the projects were indeed interesting, they were not as provocative as the author’s may have hoped however, due mostly to the fact that the majority of the people calling were not able to determine the nuances of the geophonic sound – they may as well have been listening to the sound of an ice tray melting in their refrigerator. (Marsching & Polli 2011)

This difference between the perception of geophony and anthrophony is articulated again by the use of a recording that starts with the sound of the ocean, a form of geophony that can be considered relaxing and perhaps not very provocative. This changes however when the anthrophony is introduced, the sound of engines operating, chains being dropped on a ship deck or reeled in. It doesn’t take long once the environment has been identified as the ocean to determine what the sound would most likely be – it is the sound

of a commercial fishing trawler in Alaska. The podcast details the impact of commercial fishing in regards to species extinction, as well as identifying the acoustic similarities the recording would have to the trawlers that hunt for whales in the North Sea and off the coast of the Pacific Ocean. (Turner 1999)

The podcast ends with the determination that while all of these sounds may be considered provocative, it is definitely the presence of anthrophony that is particularly provocative. This may be because we are more apt at determining the differences between the sounds of objects than we are at determining the differences between biophonic or geophonic sounds. This is itself a troubling idea - as the developed world continues to introduce more anthro-
phonic noise we may continue to lose touch with natural sounds, and hence our ability to evaluate the health and well-being of the natural environment.





'Provocative Noise' Podcast Script

: Hello, welcome to the Provocative Products podcast. In this short piece we will be exploring the relationship between sound, noise and provocation. To do this we will be looking at a collection of provocative products, and how the sounds and noises they make relate to our perception of their provocative nature. When it comes to sound, there are three types of noise, which acoustic ecologist Bernie Krause will now explain

: CLIP / KRAUSE: PHONY

: This a recording of the Daintree rainforest, located in Northern Australia. It is home to one of the most complex and vibrantly diverse ecologically habitats in the world. As such it serves as an excellent example of both geophony and biophony. Since 2015 it has been listed as World Heritage Site, and as such it has been saved from a great deal of human interference. Other environments like the Daintree however have not been so lucky. Deforestation processes across the globe have severely damaged similar natural ecosystems by significantly reducing the amount of viable homeland for different kinds of wildlife. Some of these processes have become more innovative, such as the process known as selective logging. In this process the ecosystem remains visibly vibrant, however as Bernie Krause explains, this may be misleading.

: CLIP / KRAUSE: SELECTIVE LOGGING

: At the current rate of deforestation, all of the world's rain forests we be depleted in one hundred years. There is one provocative product that it chiefly responsible for this ecologically issue – the chainsaw. The automatic version of the traditional or analog handsaw, this mechanized tool represents the act of deforestation more than any other. It produces one of the most violently provocative, and even painful sources of anthroponic noise.

: CLIP / CHAINSAW

: With it's starting 'gurgle' sound, the throttling of petrol entering the engine, and the low growl of its stasis activity, the chainsaw initially presents a sound that could be described as ominous or menacing. As it begins to increase its revolutions the pitch rises, and as it comes into contact with the tree the friction adds a stereophonic character. However at this stage the chainsaw is creating two sounds; the sound of the chainsaw it self, and the sound of the tree being sawed through. It is hard to separate these sounds – they are intertwined to such an extent that they become one. It could be in fact this intertwining of sound that makes the chainsaw such a provocative product – the object is so connect with the act it is used for, that the two have become indistinguishable.

: CLIP / TRAFFIC JAM

: This is the sound of a traffic jam in Bangalore, in Eastern India. The automobile is one of the more obvious objects that can be considered provocative when it comes to a discussion about ecological sustainability. The pollution is so intense in this part of the world, that today approximately 50% of the children in Bangalore suffer from asthma. However when it comes to air pollution and deforestation, perhaps the most provocative sound one could hear, is this

: CROSSFADE / TRAFFIC JAM - FUNERAL PYRE

: This is the sound of an Indian funeral pyre, a traditional Hindu cremation ceremony. Around 7 million people die every year in India, causing funereal pyres to become one of the countries most impactful environmental processes. Between 500 - 600 kilograms of wood are used in a single pyre, which can take up to 6 hours burn. Approximately 60 million trees are cut down every year for the process, with around eight million tons in greenhouse gases being produced. The resulting ash from the pyre is also thrown into nearby rivers, causing a high level of water toxicity.

: CROSSFADE / FUNERAL PYRE – OCEAN

: This sound is significantly more relaxing. Well at least to me it is, having spent a great deal of time on the water. Soon however, something a bit more sinister will be happening.

: CLIP / FISHING TRAWLER

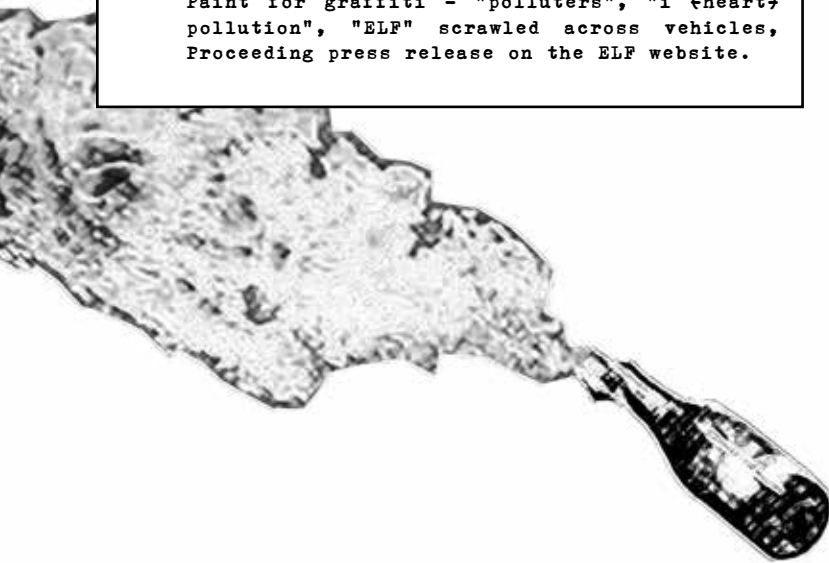
This is the sound of a commercial fishing trawler in Alaska. It's mechanical nets and bait lines will catch a great deal of halibut today. Commercial fishing in the Atlantic and Pacific Oceans is quickly reducing the number of fish species that inhabit those parts of the world. Similar trawlers near Australia and Iceland will be hunting for whales today, a process that continues to operate under questionable legality.

: FADE TRAWLER / INCREASE ATMOS

: All of these sounds may be considered provocative, as they conjure up an emotional sensibility that seems inherently violent or destructive. In the cases of anthroponic noise, they also inform us about the nature of their purpose – to cut, to turn, to burn, to pull. There is a lot we can learn about our environment by paying close attention to sound, for provocation exists as an intimate signal that crosses all sensory platforms.

: I hope you have enjoyed listening to this podcast, I encourage you to examine the other projects featured here at the Provocative Products exhibit, and please do enjoy the rest of your time exploring all the work displayed here at the Parsons Festival.

Case:	Earth Liberation Front torches SUVs
Context:	Following similar arson attacks against urban sprawl in the Southern California area in 2003, a group of protesters torched a number of SUV car dealerships, as well as cars in residential areas in order to challenge the popularity of the poor energy efficiency vehicles. The following morning the Earth Liberation Front (ELF), an international underground organization for the protection of the planet by radical means, claimed responsibility for the events under the rubric of environmental sustainability.
Props:	Torches and molotov cocktails for arson, , Paint for graffiti - "polluters", "i (heart) pollution", "ELF" scrawled across vehicles, Proceeding press release on the ELF website.



Goal/Aim:

In a press release the ELF intended to "take the profit motive away" from dealers that profit from polluting vehicles, and individuals that partake socially and economically in the proliferation and popularity of such vehicles. The majority of vehicles involved were Humvees and large SUVs, chosen specifically for their growing popularity in the early noughties, coupled with the U.S. government's reluctance to hold them to stricter emissions standards, thus setting back national efforts for improved air quality and international sustainability.

Technique:

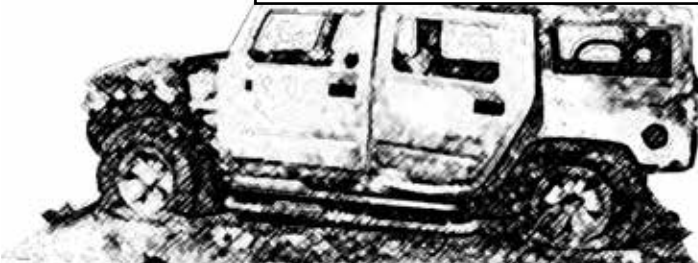
With the abandonment of traditional forms of protest, typically associated with the desire to change mainstream attitudes and policies, the ELF directly combatted groups and individuals that profit economically and socially from the destruction of the Earth. These more radical and direct techniques included torching vehicles with Molotov cocktails across SUV dealerships and residential areas in Eastern L.A. In addition to arson, text, slogans and smiley faces were painted on the side of the vehicles attributing the acts to the ELF.

Alliances:

The following day the ELF claimed responsibility for the evening's events, the affiliation had already been made evident as many of the torched cars were scrawled with the letters 'ELF' accompanied by a smiley face. This linked these disparate events across the counties as part of a codified and seemingly highly-organized terror group.

Effects:

The events of the night left Dealers with an excess of \$1 million in damages: twenty cars were torched beyond repair and twenty left with significant damage. The group claims to have inflicted more than \$100 million damage in North America in the preceding five years. The arson drew attention to the unsustainability of SUVs, but little long-term impact resulted from the act as dealerships and owners claimed insurance and replenished their stocks. Arson activities prompted law-makers to compare ELF to Al-Qaeda, in spite of no human deaths, the guerrilla tactics of the ELF spread similar terror amongst U.S. residents.





Provotypes and Provoprops

Nothing seems to provoke like other people. Provocation always seem to include another: it is a social action, an unsettling and stirring event. Provocation thus has a special implication to politics and the social order, where the status quo has been challenged, a new voice is brought to bear that was previously silenced. A new pressure is added to the social sphere, more than a mere call to tacit persuasion. Provocation is another form of civic culture, another way to organize discourse, using the force of disruption, surprise and bewilderment to call attention to a topic at hand: discontent, institutional dysfunction, need for political expression, or choked capabilities. As a form of activism, provocation enters the civic realm as an avenue for political pressure, beside the formal routes of institutional persuasion and decision-making.

Provocations may be violent disruptions. History tells stories ranging from duels and blemishes to honor, to rioting protests and political assassinations. Yet provocation in the civic realm also embodies a sense of hope. Not too unlike civil disobedience, provocation at the end puts it hope on civic reason, that the challenge of the new voice will examine civic legitimacy, responsiveness and reform, not necessarily undermine or provoke revolution. In some cases, provocation becomes a tool of inquiry, an experiment to test the immune system of democracy, to test the limits of civic liberties by directly challenging laws and forcing the juridical system to address issues. Here, the provocation encourages participation to enter the dynamics of civic life beyond habits and traditions, to test the boundaries and membranes between social sphere of action.

Provocations may have a “tactical” approach, being a voice of street-level improvisation to use De Certeau’s perspective, but the opposite may also be true, as powerful interests may infiltrate with agents provocateurs in order to expose disarm dissent. Perhaps Socrates is the the mythical civic provocateur. In the dialogues of Plato, Socrates is the voice of reason and the original citizen philosopher, critically examining the foundations of thinking and

civic values by asking unsettling questions. The Socratic method of discursive provocation and dialectic midwifery (maieutics), had the aim of getting the individuals to contradict themselves in some way, thus weakening the defender's point with elenctic examination (from the Greek verb *elengchein*, "to bring to shame"). But was Socrates not also the original agent provocateur, the litmus test used by the powerful to actually put not only him to trial, but revealing the acidity of dissent and teach a lesson to the method of inquiry which threatens power? As noted by classicist Leo Strauss, the death of Socrates became the danger signal for all coming truthsayers. That thoughts which really threaten power will come at the highest individual cost and the wrath of the state should better not be provoked.

Provoprops

Provocation has a long history in triggering and mobilizing response, from common attention, to public outrage and political action. Provocations can engage thoughts, making people think anew, or be socially powerful, from the passionate jealousy of lovers to the calculated cunning of the usurper. One could think of provocation as a strategic instrument, used in a variety of ways and for various ends.

We could start by examining three instrumental fields of provocative action where the consequences are more than just raising awareness, but rather whip up social action. The three types I would like to examine are when provocation is used, firstly, to *mobilize political agendas*, secondly, *inciting populist protest*, and finally, today's common use of *provoking for profit*. In almost every such case, provocation is not only a discursive matter, as an exchange of words, but manifests itself in matter, behavior and material culture, through designs and supportive props. Such props uphold and fortify the provocative efforts, aligns with the strategic goal of the provocation, and the fruits of the provocation most often expose the strength of this politico-material alliance. Like in stagecraft, a prop, or property, is an object with which an actor interacts, imbued with connotations or of instrumental use in forwarding the rhetorical gesture or narrative arc of the performance. In a similar way, we can trace props throughout a series of historical cases as designs which support and anchor provocations. The three types are not clearly distinct, but often overlap and intersect.

The first examples, of political provocations, are politically calculated events where provocation is used in larger strategic undertakings. They may range from the cunning in Otto von Bismarck's editing of the Ems telegram, calling forth a political excuse for the Franco-Prussian war, to Gavrilo Princip's more haphazard assassination of Archduke Franz Ferdinand of Austria and

his wife, Sophie, Duchess of Hohenberg, which came to set off the First World War. These are small and local provocations which set off larger international and historic events. Political provocations can also be of the type civic grassroots have utilized to strategize, mobilize and put pressure against government. Famous examples of such calculated provocations can be Gandhi's Salt March, or the American civil rights movement planned provocations in Selma, or their utilization of Rosa Parks bus action to generate larger protests. Yet, political provocations can also be used as to consolidate political power, such as the instrumental use of the controversy around Salman Rushdie's *The Satanic Verses* by Ayatollah Khomeini to pity the core Western value of free speech against authoritarian regimes mobilizing its citizens behind the cultural identity of Islam, thus dividing much of the progressive forces in the middle east.

Provoking for populist protest works on a more spontaneously and on street level, to highlight a more temporary agenda, and more of the popular passions. This can be examples ranging from Pussy Riot's guerrilla performance in Moscow's Cathedral of Christ the Savior, to interventions where art is used to raise awareness and challenge cultures of silence. For example, the NYC-based advocacy group ACT-UP (AIDS Coalition To Unleash Power) used direct action and artistic tactics to bring light to the AIDS pandemic, not least the famous "Silence=Death" posters and pins, and their work resulted in changes in legislation, medical research, treatment government policies. This kind of populist protests may also include the various forms of civic resistance where activists use material props to mobilize their supporters, from saving specific trees to make larger deforestation plans more urgent and focused, to the very material history of the barricade as a political instrument for drawing a material line between "us" and "them."

Provoking for profit may be one of the most prevalent forms of advertising and marketing, and in today's dynamic economy every provocation seem to underscore monetary interests. Not only does provocation tap into many functions and forms of "viral" marketing, but strategically used provocation is today the prime format for the making of celebrity. Household names such as Kim Kardashian or Paris Hilton have used provocative "leaks" to propel their fame, and the very format of viral advertising ads, does indeed build instrumentally upon Guy Debord's notion of the "spectacle" to advance positions within the attention economy. Indeed, the very notion of "rebellion" or "drop-out" may be yet another market niche, another t-shirt printed with Che Guevara's iconic image, which, somewhat ironically, may today have lost any significance as symbol of provocation.

The three types above may not be distinctly demarcated and they rarely work in isolation. As noticed in the examples, for provocations and their provo-

props to have any impact they need to be embedded into larger strategies, organizations and commitments. Bismarck's provocative editing of the Ems telegram could only result in war through the massive mobilization of the state and military apparatus, yet using the telegram was the key interface to materialize the provocation into a medium beyond ephemeral speech. At the other end, the resistance through Gandhi's salt march could only succeed through vigorous planning, training, and mobilization of participants, networks and media. Using salt was also a way to unite and rally wide masses across the Indian population, materializing and delineating an otherwise abstract colonizing process and imperial rule into something which could be successfully confronted. The provoprop was in this case the process of DIY salt production, overriding the imperial salt tax, and making oppression as well as resistance clearly tangible and where each grain of salt in the end manifested a tangible taste of future Indian independence.

Provotypes

In some instances, designers suggest design itself can provoke new futures, that is, futures emerging from the design itself, where the artefact is at the center of attention and not merely a prop in a larger strategic endeavor. By acknowledging that design has impact in our lives and in society, the idea is that design, in and by itself, can provoke, incite, and egg on new futures in-the-making.

One such approach which may be relevant to the world of provocation can be the "provotype" suggested by Danish interaction designer Preben Mogensen (1992). In Mogensen's framework of action, the designed model becomes a "provotype", a radical and generative prototype threatening the short sighted "taken-for-grantedness" of the routine. As artifacts often disappear from our perception by the very nature of their everydayness the provocation breaks through the domestic drill. Thus, as Mogensen's suggests, the designer, or system developer in his case, should take on the role of the benevolent provocateur. Merging roles of expert, facilitator, and provocateur in a single designer practice, the design of the provotype should create "discrepancies in the concrete" (Mogensen 1992: 22). "The idea from prototyping", as Mogensen argues, "is to provoke by actually trying out the situations in which these problems emerge: provoking through concrete experience." (Mogensen 1992: 10) However, as noted not least through the Heideggerian perspective on everyday tools, the act of estrangement and provocation may be needed to actually engage with the instruments of Being. Thus, the prototyping approach challenges the preconceptions and "blindness" of the participants in the design process and puts new alternatives on the table (Mogensen 1992: 15f).

Design educator John Wood argues for a “redesign of design” or what he calls metadesign, where designers not primarily work with narrow solutions or redesign of existing objects and services, but instead engage in more purposeful strategies of micro-utopian imagination (Wood 2007). Whereas many forms of utopianism got itself a bad reputation during the 20th century, Wood argues for design to return to the wisest use of designer skills to mobilize imagination and challenge “there is no other way” modes of restricted thinking. To Wood, the very purpose of design is to make futures more realizable, thus not forcing utopia onto people, but making it more accessible, discussable and feasible to critique as well as build. However, futures don’t just materialize, they need coordination, discussion, and concerted actions to be realized. Design is here a key skill in the endeavour to make new futures imaginable and discussable in order to become realizable. As designers sketch and render, and later make plans, models and prototypes, they also materialize imagination, and thus move beyond the very limited modes of extrapolation or redesign of existing conditions. According to Wood, true micro-utopian design can cut itself loose from existing conditions and limitations to produce new synergies of material dreaming: with new suggestions and action plans for the future, or what he calls “attainable utopias.”

From the perspective of politics, this micro-utopian and prototype design has a lot in common with the anarchist ideas of “prefigurative politics”, where new forms of social organization are tested as well as demonstrated in “direct action” which transgress the current political confinements, divisions of labor, or political representations. In the words of anarchist scholar David Graeber, “the idea [is] that the organizational form that an activist group takes should embody the kind of society we wish to create” (Graeber 2013: 23). In such examples, the provocative event moved beyond pure dissent, discursive argumentation, or utopian representation to produce radically democratic counter-institutions, which actualize the ideal of community self-organization. By implementing direct democratic practice in the provocation itself, as Graeber suggests, one can act “as if one is already free” (Graeber 2013: 232). Stemming from historical experiments, such as the Paris Commune or the Phalanxes of utopian socialists, or today’s squats and Occupy movement, the purpose is to produce the conditions and practices of liberation as a means of politics, not merely strive towards a distant and often obscure end.

In such instances, provocation may, in the best of worlds, also become a counter-system, an event challenging the status quo by its very existence. By showing another world is possible, the suggestive power of the alternative is meant to attract new followers, and the very promise of liberation will set the

slaves free. In its most idealistic form, the idea is that the people's hunger for sustainability, freedom, or other civic virtues, combined with the utopian calling of the counter-system, will turn towards a "tipping-point" which topples the hegemonic culture that fetters the people. At this tipping point, the newly awoken masses, who now are willing and enlightened, will unite and produce a new virtuous or utopian culture set off by the leading example of the counter-system.

But such turn of events seem rare in our history books. And the annals of design may be even more sparsely populated with such civic success stories. Are there any examples of truly utopian provocations? Are there any good examples to study, and, in such cases, "good" to whom?

Pro-active provocation

Whereas there may be some examples of civic and sustainable provocations which produce some form of utopian outcome, such as Gandhi's salt march mentioned earlier, most seem tightly amalgamated with social and political organization. Yet, a common, and somewhat designerly, approach seem to correspond between the provoprops and provotypes: a pro-active manifestation of vision and hope.

This pro-active element in provocation is thus not only a mode of breaking some things down, but also contains a productive element: it eggs on and incites. This gesture resonates well with feminist Barbara Deming's metaphor of the "two hands", which both opposes and proposes (Deming 1971). Deming's ideas of resistance aims to reform the relationship between activist and opponent, or to remake the guiding principles between opponents in an act of resistance:

'The more the real issues are dramatized, and the struggle raised above the personal, the more control those in nonviolent rebellion begin to gain over the adversary. For they are able at one and the same time to disrupt everything for him, making it impossible for him to operate within the system as usual, and to temper his response to this [...] They have as it were two hands upon him—the one calming him, making him ask questions, as the other makes him move.'
(Deming 1971: 207)

In Gandhi's salt march, for example, the very act of provocative Do-It-Yourself emancipation, by citizens making their own illegal salt, the actions manifested the freedom from Imperial rule on a micro-scale, thus "acting as if already free." By their illegality, they provoked a British response, making the Imperial policy and oppression apparent. The oppressors become the reactive element, not the protestors. Yet, as often highlighted by proponents of nonviolent action, by provoking a response the actions embodied a sense of

hope in political solutions, which would not have been obvious in clandestine or violent action against the British. One hand provoked the British, the other made independent salt. Yet, on the other hand, this hope may only have been possible under specific conditions in Imperial India, and in conjunction with other political and economic circumstances which made this form of provocation fruitful.

For example, the anti-nuclear actions of the Plowshare movement or the Women's peace encampment at Greenham Commons, or the civic actions of ACT UP or the Sanctuary movement, may work as provocations under specific democratic and liberal circumstances and in certain times, whereas the same provocations are forcefully squashed by state power in other times and places. The pro-active provocation, where the action tests the "immune system", or legitimacy and legality of social institutions, can be seen as a constructive critique which puts its political hope in the civic progress of democratic institutions. Yet the actions, without the broader support of the public and civic instruments to manifest public power, often lack the leverage to enforce itself on state institutions.

So what is to be done? Can provocation be of any use within the discipline of design, other than for creating some attention and marketing? A way to think instrumentally about provocation can be to use German thinker Peter Sloterdijk's idea of the intellectual as an interrupter, with the role to intervene and to slow thought down, in order to make room for reflection. This means to challenge the collective culture of excitation, to cut through the input and stream of stress. In the flow of media and attention thoughts are not free, but under continuous stress. A thinking citizen needs to claim sovereignty from from the surge of thematic epidemics, trends of opinion and waves of excitation. As Sloterdijk argues, "I am free only to the extent that I interrupt escalations and that I am able to immunize myself against infections of opinion." Critical theorist Roy Scranton defends Sloterdijk's position: "as opposed to disruption, which shocks a system and breaks wholes into pieces, interruption suspends continuous processes. It's not smashing, but sitting with. Not blockage, but reflection." (Scranton 2015: 87)

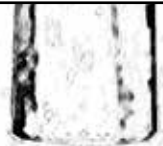
Of the many things provocation can do, it can interrupt the flow of the everyday, it transgresses and irritates, yet, as argued by Deming, it must not make us turn towards power or government for help, but instead turn us towards each other, to start trusting and caring for others. In such cases, provocation can egg us on, and incite us, to facilitate a move where we take on to govern ourselves with a new spirit of togetherness.

In such cases, the provocation is not merely an interruption for reflection, but a tool: a hammer with which to shape reality.

Case:	Gandhi's Salt
Context:	Britain's Salt Acts forced Indians to buy salt, a staple in the Indian diet, from the British with a heavy tax.
Prop:	Seawater from the Indian Ocean, Sun to evaporate the water and leave the salt.
Goal/Aim:	Defying British salt tax policies to unite Indians and start the campaign of "satyagraha," or mass civil disobedience.
Technique:	Nonviolent and pro-active resistance
Alliances:	Long preparation, teaching and mobilization of Indian National Congress amongst others
Effects:	The following year, Gandhi travelled to negotiate with British leaders, but the meeting was a disappointment, yet the British had acknowledged Gandhi and the Indian Independence movement as a force they could not suppress or ignore.



Case:	Nietzsche's Hammer
Context:	Nietzsche's book <i>Twilight of the Idols, or How One Philosophizes with a Hammer</i> (Götzen-Dämmerung, oder Wie man mit dem Hammer philosophiert), from 1888, contains the famous metaphor of the philosopher's hammer.
Prop:	Metaphorical hammer
Goal/Aim:	If the idols sound hollow, that is because they are false. Weak idols must be abandoned.
Technique:	"To philosophize with a hammer" signifies a way to test idols by tapping on them, to sound them out. Nietzsche tested contemporary idols, such as Victor Hugo and Richard Wagner and found they were softies.
Alliances:	Napoleon, Dostoevski, Thucydides
Effects:	"To philosophize with a hammer" has also come to signify more violent and contested connotations, such as to engage in virulent, uncompromising polemic with the Western canon of philosophy.







References



- Anderson, Oscar Edward (1953) *Refrigeration in America*. Princeton University Press. <http://www.jstor.org/stable/j.ctt183q1k7>
- Anon (2014) "Great Pacific Garbage Patch". *National Geographic Education*. Available from: <http://education.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/> [Accessed May 2, 2016].
- Astronomical Applications Department of the U.S. Naval Observatory. "Introduction to Calendars." <http://aa.usno.navy.mil/faq/docs/calendars.php>
- Boeing, Nils and Rauner, Max. 2014. "Zeit." *Zeit Wissen*. Available at <http://www.zeit.de/zeit-wissen/2014/04/raumfahrt-weltraum-mars-experiment>
- Boorstin, Daniel J (1983) *The Discoverers*. Knopf Doubleday Publishing Group,
- Buchanan, Richard & Margolin, Victor (1995) *Discovering design: explorations in design studies*, Chicago: University of Chicago Press
- Chambers' Cyclopaedia (1728) "Calends", Vol. 1, p. 143. Also available here: <http://digicoll.library.wisc.edu/cgi-bin/HistSciTech/HistSciTech-idx?type=turn&id=HistSciTech.Cyclopaedia01&entity=HistSciTech.Cyclopaedia01.p0293>
- The Chronicle of Higher Education (2010) "Green Guilt". [online] Available at: <http://chronicle.com/article/Green-Guilt/63447> [Accessed 2 May 2016].
- DeConto, R. and Pollard, D. (2016). "Contribution of Antarctica to past and future sea-level rise." *Nature*, 531(7596), pp.591-597.
- Demaray, Elizabeth. "The Hand Up Project: Attempting To Meet The New Needs Of Natural Life-Forms". *Cabinet Magazine*. N.p., 2004. Web. 2 May 2016.
- Deming, Barbara (1971) *Revolution and Equilibrium*, New York, Grossman
- Ec.europa.eu. (2016). Causes of climate change - European Commission. [online] Available at: http://ec.europa.eu/clima/change/causes/index_en.htm [Accessed 25 Apr. 2016].
- Frazier, Ian (2014) "Blue Bloods." *The New Yorker*. Available at <http://www.newyorker.com/magazine/2014/04/14/blue-bloods>
- Graeber, David (2013) *The democracy project: A history, a crisis, a movement*. London: Allen Lane/Penguin
- The Guardian (2015) "Mars One shortlist: the top 10 hopefuls." *The Guardian*. Available at <https://www.theguardian.com/science/2015/feb/17/mars-one-shortlist-the-top-10-hopefuls>
- Hamblin, J (2015) "A Brewing Problem". *The Atlantic*. Available from: <http://www.theatlantic.com/technology/archive/2015/03/the-abominable-k-cup-coffee-pod-environment-problem/386501/> [Accessed May 2, 2016].
- Hansen, Anders (1991) "The Media and the Social Construction of the Environment." *Media, Culture, and Society* 13: 443-56.
- How Stuff Works (2015) "How Landfills Work." Available at: <http://science.howstuffworks.com/environmental/green-science/landfill2.htm>. [Accessed 2 May 2016].
- Huo, Xia et al. "Elevated Blood Lead Levels Of Children In Guiyu, An Electronic Waste Recycling Town In China On JSTOR". *Jstor.org*. N.p., 2016. Web. 2 May 2016.
- Kermeliotis, T. (2011) "India's burning issue with emissions from Hindu funeral pyres"
- Krause, B. (2013). TED Talk: "The Voice of the Natural World", available at: https://www.ted.com/talks/bernie_krause_the_voice_of_the_natural_world?language=en#t-393425
- Lansdorp, Bas (2015) "Mars One." Available at <http://www.mars-one.com>

- Mann, Thomas (2010) *Death in Venice: And Seven Other Stories*. Knopf Doubleday Publishing Group,
- Marsching, J. & Polli, A. (2011). "Far Field: Digital Culture, Climate Change, and the Poles"
- Mogensen, Preben (1992) "Towards a Prototyping Approach in Systems Development", *Scandinavian Journal of Information Systems*, Vol. 4, pp 31-53, 1992.
- Nietzsche, F (and Smith, D) (1996) *On the Genealogy of Morals*. Oxford: Oxford University Press.
- Paul, Randolph (2016) "Marsoner kritisch." Available at <https://marsonekritisch.wordpress.com/2016/03/03/das-projekt-mars-one-in-der-kritik-erste-bemannte-marsmission-2023-ohne-rueckkehr-wie-realistisch-ist-eine-bemannte-expedition-zum-mars-ohne-wiederkehr/>
- Peters, Klaus (2016) "One-Way-Trip to Mars – Himmelfahrtskommando?" *Welt*. Available at <http://www.welt.de/wissenschaft/weltraum/article137382804/One-Way-Trip-to-Mars-Himmelfahrtskommando.html>
- Pickrell, John. "Litter-Loving Crabs". *Science Magazine* AAAS. N.p., 2002. Web. 2 May 2016.
- Pijanowski, B., Villanueva-Rivera, L., Dumyahn, S., Farina, A., Krause, B., Napoletano, B., Gage, S. & Pieretti, N., (2011). "Soundscape Ecology: The Science of Sound in the Landscape"
- Rand, A (1970) *The New Left: The Anti-Industrial Revolution*. New York: Penguin,
- Rodrigue, D. (2016). The Cold Chain and its Logistics. [online] People.hofstra.edu. Available at: <https://people.hofstra.edu/geotrans/eng/ch5en/appl5en/ch5a5en.html> [Accessed 2 May 2016].
- Scranton, Roy (2015) *Learning to Die in the Anthropocene*, San Francisco: City Lights Books
- Sedgwick, Eve (2003) *Touching Feeling: Affect, Pedagogy, Performativity*. Durham and London: Duke University Press.
- Stewart, S. (2002) *Poetry and the Fate of the Senses*, Chicago: University of Chicago Press.
- Stratfor (2016) "The Geopolitics of the Gregorian Calendar | Stratfor." January 1, 2016. Accessed May 2, 2016. <https://www.stratfor.com/analysis/geopolitics-gregorian-calendar>.
- T.G.D. (2014) "5 Reasons K-Cups Aren't OK for the Environment". Available at: <http://www.care2.com/greenliving/5-reasons-k-cups-arent-ok-for-the-environment.html> [Accessed May 2, 2016].
- Time Magazine (2016) "China's Electronic Waste Village" - Photo Essays. Retrieved May 2, 2016, from http://content.time.com/time/photogallery/0,29307,1870162_1822171,00.html
- Turner, S., Thrush, S., Hewitt, J., Cummings, V. & Funnell, G. (1999). "Fishing impacts and the degradation or loss of habitat structure"
- Vidal, J. (2008). True scale of CO2 emissions from shipping revealed. [online] *the Guardian*. Available at: <http://www.theguardian.com/environment/2008/feb/13/climatechange.pollution> [Accessed 26 Apr. 2016].
- we-greenusa.org (2015) "Landfill Problems". Available at: <http://www.wegreen-usa.org/landfill-problems.html>. [Accessed 2 May 2016].
- Wood, John (2007) *Design for micro-utopias: making the unthinkable possible*, Aldershot: Gower
- Wilson, Bee (2012) *Consider the fork: a history of how we cook and eat*, New York: Basic Books.

“Provocation” - what is it, and what is it for?

To *harass, transgress, irritate, annoy, taunt* and *insult*, but also to *egg on, incite* and *aggravate*; the provocation crosses boundaries, trespasses beyond what is considered appropriate. The question for designers is how to best mobilize the force of provocation for the their strategic purpose.



A class at Parsons School of Design decided to examine how to produce provocation.