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Artistic Interventions in UChicago's Nuclear Media Ecology: Methods and Analysis

Abstract Censorship and information control are sometimes, but not always, intentional. Moreover, a distortion may occur over time as the influence of what was once propaganda becomes ingrained in a country's ideological ethos and is perceived as truth. Such is the case with nuclear energy, which presents a number of humanistic problems that are difficult to overcome through traditional policy intervention because of ingrained ideological barriers on many levels of institutional hierarchy—from top governmental officials, to readers of news sites that fail to disclose money received from the nuclear lobby. In this media landscape, it is shockingly difficult to find the information necessary to make informed policy decisions.

In this essay, I first lay out the history and problems of US nuclear energy reception that have led to our particular brand of informatically-controlled circumstance. I then discuss the particular ways I have attempted to work through this problem, including the pros and cons of each approach, and how it was received. Finally, I discuss my final project, an art installation piece that attempts to expand upon the the work I have done as a nuclear abolitionist by intervening in the nuclear media ecology of the University of Chicago.

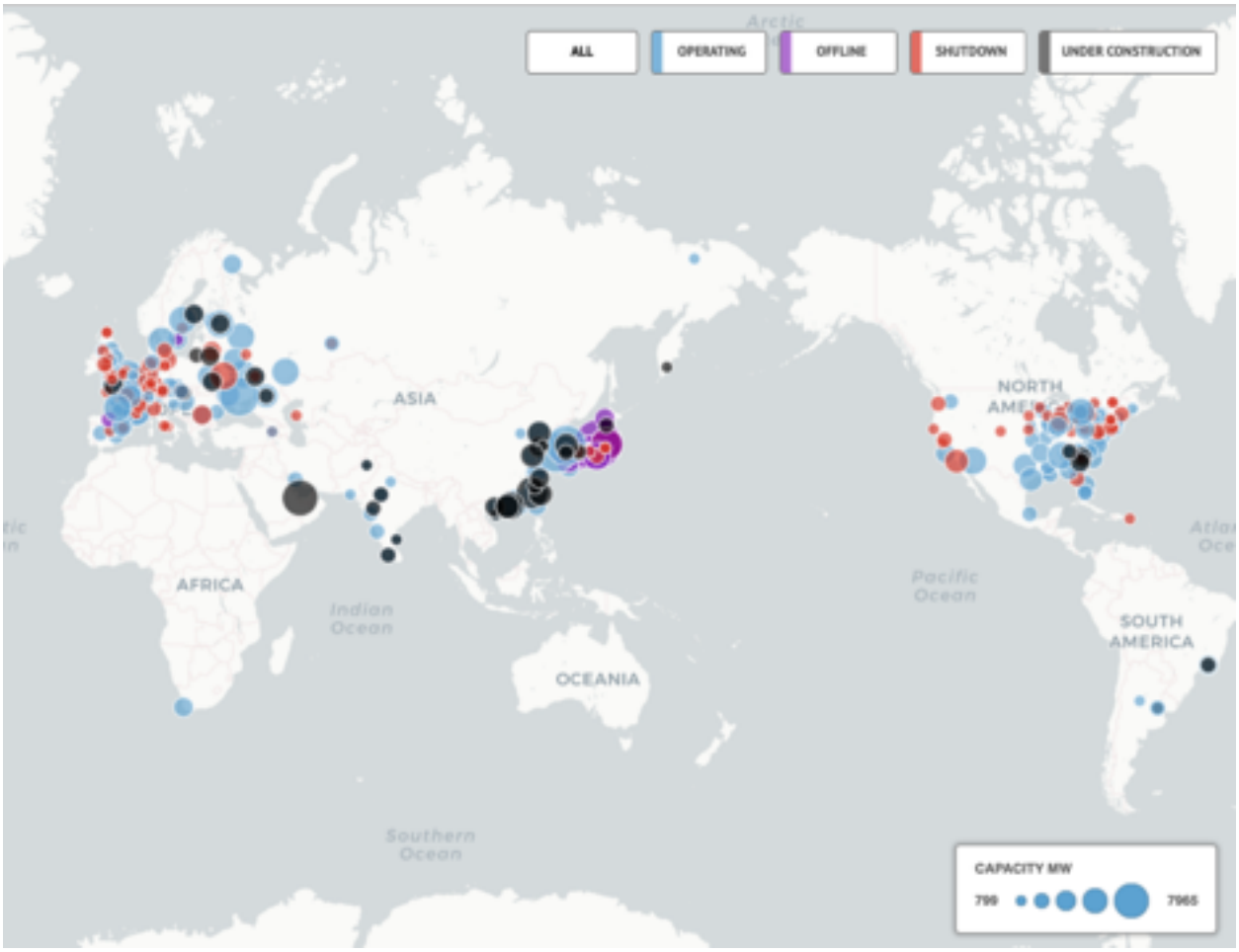
Introduction: The History and Problems of US Nuclear Energy Reception

Nuclear power remains a fundamentally antagonistic anthropocentric force contributing to climate change, and has caused massively increased rates of thyroid cancer, heart disease, and newborn leukemia on a global level. In other words: The adverse effects of nuclear energy are not relegated to civilian populations living near the Fukushima and Chernobyl exclusion zones. A sample of 85,000 teeth collected from Americans born during the bomb-testing years assessed risk of cancer by in-vivo measurement of residual strontium-90 (Sr-90) concentrations, the results of which suggested that "many thousands have died or will die of cancer due to exposure to fallout, far more than previously believed." While this study was specifically targeted to the United States testing, the nuclear powers have collectively detonated more than 2,000 nuclear devices and have built over 667 nuclear reactors, the fallout of which drifts according to weather

patterns, is deposited in the soil and sea, and which makes its way through the global ecosystem. We are, in effect, living in through the nuclear anthropocene.

[Top image]: A time-lapse video that maps every nuclear detonation between 1945 and 1998, by Japanese artist Isao Hashimoto. https://www.youtube.com/watch?v=LLCF7vPanrY

[Bottom image]: A 2016 map of the world's nuclear reactors. https://www.carbonbrief.org/mapped-the-worlds-nuclear-power-plants



Yet, today, the Trump administration is planning to reclassify radioactive waste left from the production of nuclear weapons in order to lower its threat level and thus making disposal cheaper and easier, ignoring the unprecedented health risk associated in doing so. And, after the Fukushima Daiichi disaster, the Japanese government raised the acceptable levels of radiation for Fukushima residents to 20 millisieverts per year from 1 millisievert per year in order to speed up the gradual lifting of evacuation orders, despite this being a violation of a basic human right according to the United Nations. While it might be shocking to find out just how much support there is for nuclear energy today when looking at the effects of fallout and spent fuel on human lives, our contemporary media ecology is actually saturated with misinformation and secrecy when it comes to the subject of nuclear energy. And this makes it easier for the US and Japanese governments to get away with violations of human rights.

In the United States, nuclear energy is presented as the diametrical opposition to the use of fossil fuels as the only viable 'green' solution to the energy crisis. As I have found, rejecting nuclear energy openly will often elicit the response, *What, so you would rather use coal?* However, this is a subtle form of information control, a false binary that at best marginalizes and at worst fundamentally ignores the role of renewable energy. The attempt to control nuclear discourse can be located back to Greenpeace's co-founding in the early 2000s by Patrick Moore, a paid spokesman for the nuclear industry. Since then, there has been an unfortunate amount of attention brought to the idea that nuclear power can play a significant role in solving the energy crisis. This has gone on to influence high-profile individuals such as respected climatologist James Hanson and even former President Obama. Even before that, however, there was an ideological form of information control that stemmed out of US Cold War propaganda.

In a 1953 speech, entitled ‘Atoms for Peace,’ President Eisenhower, proclaimed to the American people that “It is not enough to take this weapon out of the hands of the soldiers…It must be put into the hands of those who will know how to strip its military casing and adapt it to the arts of peace.” While this speech implicates civilians in a larger field of political life by promising to place nuclear technologies into the hands of the American people, the supposed peaceful applications of nuclear technology (such as atomic gardens, in which one could place an order for an irradiated seed packet from the Sears Catalog to gamble on rare, beneficial mutations in plants) were actually a strategic means of information control which would set the tone for nuclear rhetoric in America up until the present day.

The Manhattan Project culminated in the formation of the Atomic Energy Commission (AEC), which from its onset, sought to enforce widespread popular acceptance of nuclear research among Americans in order to further America’s military agenda. Obviously this “could not be done by calling attention to the primary purpose of such research, which was to support national security especially through weapons stockpiling” as this would only emphasize the “inherent dangers,” (Curry, 2016) of such research. Thus Eisenhower’s “Atoms for Peace” movement was born, which entailed research funding for “programs in a range of disciplines situated at the nation’s new, government-funded national laboratories,” which were “a soon-to-be sprawling institutional network,” (ibid). Importantly, because the status of physicists had become fundamentally linked to that of weapons production, biological and biomedical research would be funded as well, serving as “key focal points for government claims about atomic energy as a social good,” (ibid). We can see then that the “Atoms for Peace” program was actually establishing a new atomic energy regime by enforcing peaceful civilian applications of nuclear

technologies. The Atoms for Peace program did more than just persuade the American public to believe in nuclear energy for civilian applications in order to further the country's militaristic goals, however. It was *also* a way for the United States to move beyond its status as 'perpetrator,' to that of 'missionary' by establishing the first nuclear reactor in Japan.

In September, 1954, the Washington Post reported on AEC council commissioner Thomas Murray's proposal that Japan should be the first recipient of a nuclear power plant. The reason stated was, in part, because of Cold War geopolitics, ("already the Russians, sensing the urgent [power] needs of the Japanese and therefore the political opportunities in Japan, are making overtures"), but moreover, because "Many Americans are now aware, thanks primarily to the United States bombing survey, that the dropping of the atomic bomb on Japan was not necessary. In retrospect, the war seemed to have been virtually over when we obliterated Hiroshima and Nagasaki. How better to make a contribution to amends than by offering Japan the means for the peaceful use of atomic energy," ("A Reactor for Japan," The Washington Post, September 23, 1954, 18). This act, as Murray claims, "would be a dramatic and Christian gesture which could lift all of us far above the recollection of the carnage of those cities." This set the tone of much of today's nuclear rhetoric, which is still often suffused with a grandiose religious tone. In contemporary literature, Kai Bird and Sherwin's *American Prometheus* stands as one example of how the American popular narrative of the bomb focusses on the figure of Oppenheimer and the Manhattan Project scientists, who, like Prometheus, are described as tragic heroes, or Gods whose psyches were eternally punished after giving the gift of fire to mankind.

So what can be done?—How can we begin changing the rhetoric around nuclear energy and the scientists who produced (and continue to) produce it in order to secure a more livable and less oppressive future? The answer is multifold, and intervention will no doubt will require efforts from politicians, institutional promises of divestment from nuclear energy, and streetwise protests by grassroots community activists. The particular niche I have been able to make some progress in is through creating large-scale participatory artworks that productively parasite off of institutional events, in order to generate social change.

Part II: Tactical Media and Artistic Interventions

As Rita Raley says in "Tactical Media as Virtuosic Performance," the way that our society conceives of and expresses revolutionary transformations has changed due to the rise of digital media. This is not to say that there is no room for embodiment in political projects. Antiglobilization, WTO, and G8 protests, The Battle of Seattle, and the street demonstrations in support of US immigrant rights in the spring of 2006 were all undeniably geospatial events. However, in our current media ecology, "the doxa about the value, cultural significance, and the efficacy of the streets has changed" such that many have had to modify their activist practices, orienting their dissent away from "the grand, sweeping revolutionary event" towards "a micropolitics of disruption, intervention, and education." This is the project of Tactical Media: to perform a close reading on the pervasive, monotonous, and overlooked systems and codes organizing our techno-social milieus, and to stage an intervention or disruption in the sites where that power operates. While, according to Raley, Tactical Media "want to have a material effect on the world," they are ultimately "temporary and provisional." By "tinkering, playing, and

visualizing," they can critique the systems they are deployed in without structurally changing those systems during the time in which they are happening.

One example of a piece of tactical media is Zach Blas' *Fag Face Mask.* The piece is an attempt to articulate what a queer politics might look like in the post-9/11 surveillance sphere, which is populated by new biometric technologies that verge on eugenics. Inspired by the masks worn by the Zapatistas, Anonymous, Pussy Riot, and black blocs, Blas created *Fag Face Mask* by aggregating the 3D scans of many queer mens' faces without averaging them, resulting in an unrecognizable biomorphic form that still retained the collective identities of the people used to produce it. While it is perhaps not meant to actually be worn, and exists primarily in the online gallery space of the Museum of Contemporary Art Chicago's "I Was Raised on the Internet," the art piece is a significant example of tactical media and works like a prop in speculative design, opening us up to a larger world of simulation—of the what *could* be. By emphasizing the dialectical tension inherent in having a hyper-visible collective presence while resisting individual identification, it makes us aware of the problems of queer visibility and activism in online spaces like Facebook and Twitter, which are the main conduits of dissemination to the public, but are also dangerous to queer folk because they have back-doors for companies like Cambridge Analytica. The problem with *Fag Face Mask,* however, is the problem with most critical high art and aesthetics: Its esoteric opacity (and thus its inaccessibility to the people who need it most). And this is, I believe, where the streets must make their return in Raley's formulation.

While they might be most commonly recognized as viral marketing mechanisms today, there exists a newly-bred media form called the Alternate Reality Game (or ARG), which

describes a cultural and aesthetic form taking advantage of the contemporary media landscape. These games combine "real-world" encounters (e.g., events taking place in physical 'meatspace') with the frequent shifts between screens that have become ubiquitous parts of convergence culture. Many educational games suffer because direct learning content tends to trigger psychological defenses and reduce player engagement. However, the transmedia affordances of ARGs function to sever players' critical distance from the historical present, allowing designers to build a critique from the *inside* of oppressive systems. Critically, ARGs do not announce themselves as games, but instead allow players to 'stumble in' through what designers call 'rabbit holes,' invitations into the world of the game that might include push notifications, live-action events, links to mysterious websites, and so on, initiating the player into the game's narrative.

What specifically brings to mind ARGs when talking about Tactical Media is how they effect ruptures and reversals in the codes organizing our techno-social milieus through their induction of *metalepsis,* a narratological term that Gérard Genette uses to denote a transgression between different levels of story, or between story and narration. While this term has traditionally been used with reference to written texts analyzed in narratological discourse (and more recently, in discussions of agency in interactive fiction), it can be applied *ontologically* to these contemporary media forms as well. ARGs introduce violations into the mechanism that demarcates the world of the narrating and withholds it from that of the narrated. And, just as "fake news" is capable of spinning un-truths, what results is the blurring of once-distinct ontological worlds.

ARGs are ultimately ephemeral experiences, so all their re-organizing is, as Raley says of Tactical Media, "temporary and provisional." Yet, when an ARG finally ends, a lack is experienced by players, who feel the need to plug themselves into a cause or community. These players know how the world *could* be, how a different kind of knowledge *could* be done, and they know, from how the ARG increased their capacity to tinker and play with the rules of reality, that it is within their power to create new political undergrounds in the space left for them. ARGs offer us the tools for the undoing itself without necessarily positing something better by facilitating the emergence of networked resources and collaborators. Moreover, because they constitute experiments in worldbuilding, at the very least, a study of ARGs opens up new terrains in the examination of how knowledge production and affect work in underground spaces, and what happens when a Tactical Media project ends. In the way they occupy the same epistemological grounds as a supposed "post-truth" society, ARGs resonate with me as a form of Tactical Media, which might open up new modes of political praxis in the historical present.

Two summers ago, I worked as a lead developer on *The Parasite* (2017) Alternate Reality Game at the University of Chicago, which featured a plot that was in many ways a metaphor for the secrecy of science and the development of the atomic bomb. While the game was pitched as a supplementary event for Orientation Week, meant to increase 21st century digital media literacies and introduce incoming first-year students to resources on campus, it ended up promoting the Graduate Student Union, drawing attention to various pernicious aspects of neoliberalism on campus including the ideological legacy of the Manhattan Project, and facilitating the emergence of a lasting network of collaborators, through which subversive interdisciplinary work could be made possible throughout the students' college careers. However,

for an ARG to be successful as a disruptive, parasitic intervention into a particular big problem in society, it can take months or even years of planning. This includes: applying for grant funding, negotiating with institutional representatives, and building a shared language among collaborators. But there are a number of takeaways from the case of ARGs that can be applied to other forms of art that are more manageable in time-sensitive scenarios.

To recap: ARGs grab attention through selective, pop-up "rabbit holes," and transform passive audience members into active participants through their interactive, ludic events. They are not resigned to a gallery or online space, but traverse *between* spaces, potentially having online components. Like the situationist practice of dérive, they inject the spirit of play into everyday life and in such a way, have the potential to break us out of the normative judgment instilled by disciplinary society that unconsciously reproduces social mores. Finally, by the time they have ended, many ARGs result in the creation of a tight network of players, all looking for a way to extend the feelings produced by the game (possibly through activism or community service). The subversive, parasitical nature of ARGs, and their insistence of site-specificity, is one answer to the question of how to make a game or an artwork that is capable of changing attitudes and behaviors about a serious topic. On this note, I want to transition into talking about my final project, which was not a game, but the continuation of a public performance sharing in the parasitical ethos of ARGs, which also resulted in an emergent network of activists and collaborators, and yielded productive conversations about censorship on campus.

Part III: Continued Parasitism of the 'Nuclear Reaction Series'

1. It Does Not Bring its Own Light (2017)

Photographic documentation of *It Does Not Bring its Own Light* on Dec. 2, 2017 by Brittney Dorton.

On the 75th anniversary of the first sustained nuclear chain reaction, I staged a piece of public performance art in front of the Henry Moore Nuclear Energy Sculpture, critiquing the University of Chicago's celebratory framing of the bomb and their pyrotechnical commissioning of Cai Guo-Qiang. Before Cai's mushroom cloud exploded, there was meant to be a somber tolling of Rockefeller bells, however, this was paired with an audience countdown reminiscent of Times Square on New Year's Eve, culminating in cheers and applause when the mushroom cloud finally erupted above the Regenstein Library. (It's something that my colleague and fellow nuclear abolitionist, historian Norma Field, referred to as plausibly belonging in "a dark comedy about human folly in the face of impending disaster.") To stage an intervention in what would

have been an ultimately unchallenging, passive viewing experience of the cloud, I had seven performers (including myself) walk in front of the Nuclear Energy Sculpture when all heads were turned to the sky in anticipation. These performers were drawn from the player base and design team of *The Parasite* ARG*,* but also included new bystanders who found out about the event online, just a night before. On the sound of the boom, we all dropped instantly to the floor and remained there in prolonged stillness. I found out from reporters after the event that after lowering their heads, many audience members who were at first cheering became silent. This was the intent.

The problem with the University's commissioning of the piece is that the symbol of the mushroom cloud too often obscures and distances the role of the human. It is a problem of the failures of representation. It makes us look to the sky instead of the ground. Perhaps it is not that the University was being outright aggressive or malicious, but it is indicative of neglect for alternative narratives—and that in itself constitutes an unconscious form of censorship and information control. My hope with the piece was to carve out a both reflective and critical space by juxtaposing the stillness of bodies with Cai's cloud in order to help make visible the all-too-invisible lingering effects of radiation on the human body.

In the days following the piece, The University of Chicago sent out a newsletter reporting on Cai’s rainbow mushroom cloud, which included an official video essay of the event. However, the protest was never shown in the video, and the newsletter never mentioned us. The student-run UChicago Maroon Newspaper published two pieces of media about the event—a front-page article which made no mention of the protest piece, and a small link underneath to a photo essay which briefly mentioned that it happened, but did not include my name as the event

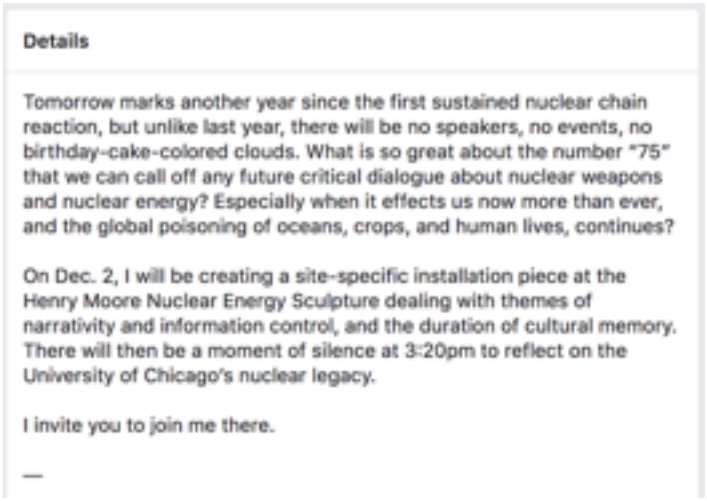
organizer. Meanwhile, both the Hyde Park Herald and the anti-nuclear Illinois-based website, Nuclear Energy Information Service (NEIS), reported on the protest. In particular, NEIS ran an article called *"Nuclear Hotseat" Skewers U OF C's "Nuclear Reaction" Bubble-Babble* in which I was credited for the work and given significant page time.

In the months following, Chicago Artist Writers published a piece called *Harmless Public Art? Cai Guo-Qiang at the University of Chicago,* in which Graduate Student Union (GSU) member Luke Fidler skewered Cai's pyrotechnic display as "the public face for a campaign of institutional misdirection…complicit in the university's rewriting of its own history," and "in the university's ongoing political battles against unionization and its abdication of public responsibility. Launched from the top of the library, the site of drastic budget cuts and staff layoffs, it illustrated the degree to which administrators have preferred publicity stunts and high-profile art commissions to the support of students." It became apparent to me that while my critique was aimed specifically at UChicago's nuclear legacy, members of the GSU were using my work to talk about larger problems in the community (another part of the same military-academic-industrial complex). For me, this illustrates how a piece of art that gets censored can end up becoming martyred and/or appropriated for intersectional causes.

Media reporting on *It Does Not Bring its Own Light* in Japan was significantly more in-depth than in American publications, and engaged a broader range of nuclear issues. A reporter from a major Hiroshima Daily Newspaper, the *Chugoku Shimbun,* contacted me while I was in Hiroshima over the summer and requested an hour-long interview about how the performance piece was received by the UChicago administration, and what nuclear energy rhetoric is like on campus. I was also asked to speak at the *Sangiin-kaikan* (the National Diet building in Tokyo)

about the piece and the nuclear rhetoric on campus, around the time of the special trial to prosecute the TEPCO executives responsible for the Fukushima Daiichi earthquake disaster. Yet, the people organizing these interviews and talks were nuclear abolitionists and do not reflect the strong pro/anti nuclear divide in Japanese culture. (And there were certainly some members of the audience who were anti-nuclear.)

2. There is no rainbow 虹はありません (2018)



Facebook event homepage and description for *There is no rainbow*: https://www.facebook.com/events/2016523148394556/

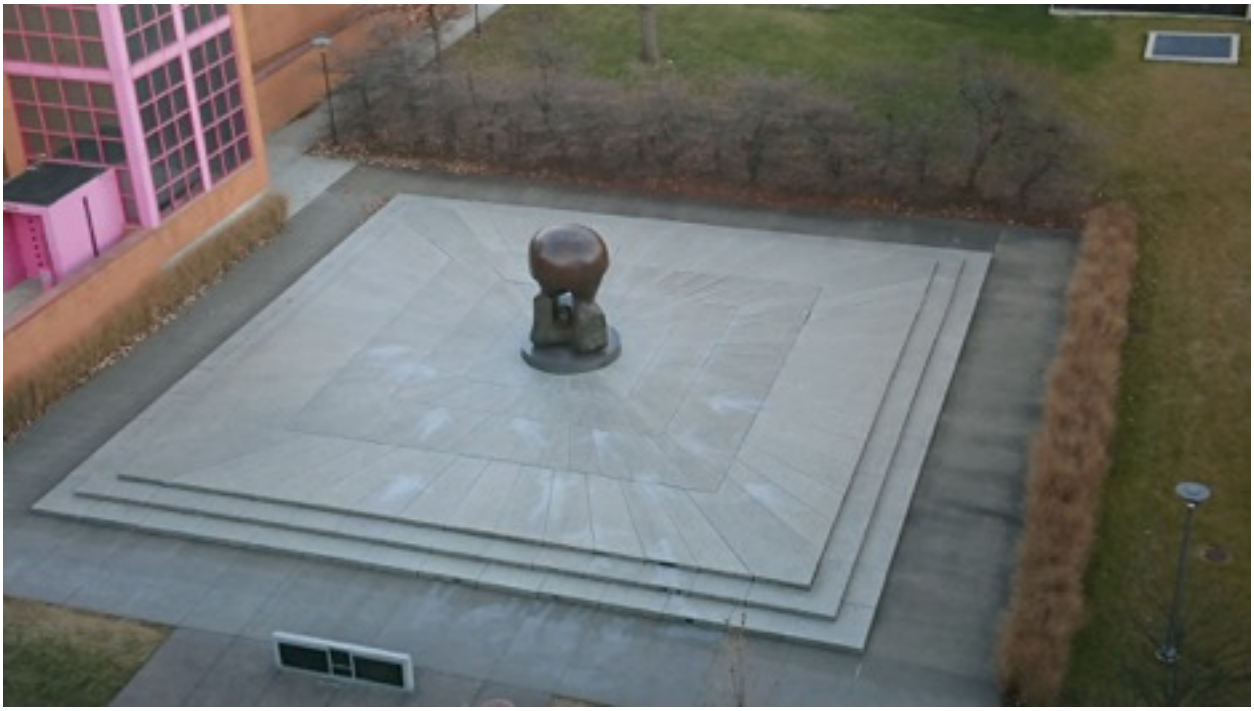
On Dec. 2, 2018, a year after the 75th anniversary die-in, I woke up at 5:45 AM and gathered my supplies: a box of chalk, paintbrushes, paper rags for smudging, and two gallons of black, non-permanent Crayola-brand paint. By 7:00 AM I was standing in front of the Henry Moore Nuclear Energy Sculpture with my enlisted collaborator and friend, Kayla Johnson, and last year's photo-documentarian, Brittney Dorton. It was brutally cold and rainy, but by 8:00 AM, there were seven shadows on the ground where the protestors once lay.

During the hour it took to get the shadows ready, a police car drove up to us and asked what we were doing. I expected a figure of authority to challenge the project, since last year, our die-in was eventually shut down by a person who claimed there was a "designated protest zone" (which of course, was never advertised to us—much in the way that Burlesque dancers have to research superfluous and venue-specific restrictions, which function as a form of censorship: to make it harder for their work to exist). My response was: "Oh, I'm creating stencils for a class. Don't worry, it's not permanent!" And he drove off shortly thereafter. I think this emergent circumstance illustrates how a white, femme-presenting person wearing a Canada Goose jacket is perceived of as non-threatening to UCPD, and how it might be harder for a person of color to get away with the same thing. Along this line, I also learned that having at least one other person with you while creating a piece of public art makes your work seem more credible.

The next phase of the project was to spend the next eight and a half hours, inviting passerby's to become part of the piece by lying down on the granite base of the statue while I stenciled their body with chalk and then filled the interior with black paint. Both Kayla and Brittney had to leave around 8:30 AM so I was alone for about an hour and a half, and during that time, it became increasingly difficult to solicit passerby's attention. However, by 10:00 AM, I was joined by an alternating collaborator, Samuel Passaglia, who helped fill in the stencils, which by 11:30, were beginning to amass around the base of the statue at an exponential rate. These moments of audience participation were the best part of the project and yielded 20 to 45-minute-long impromptu conversations about censorship on campus, the nuclear energy industry, and ways to get involved in the nuclear abolition movement.

By 3:00, the Henry Moore Nuclear Energy Sculpture was encircled by shadows. Then, at 3:20, there was a moment of silence, during which, members of the community weaved paths through the shadows and stood in somber contemplation under the gray, rainbowless sky. The point of the piece was to reignite and fuel critical discussion about censorship on campus, the black shadows speaking intertextually to both the shadows the protestors left, the censored body, and the permanent shadows left on the sidewalks and buildings of Hiroshima and Nagasaki after the atomic bomb.

Pictured above, a distinct blurring effect, meant to call to mind burning figures, was achieved through the use of rainwater and smudging specific areas with a rag. The blurring of the shadows increased over time until the color changed to white, two days after, meaning either a reaction between the granite, water, and paint occurred, or deliberate effacement of the installation had been authorized by the institution. The white shadows are still haunting the site, like almost unnoticeable ghosts viewed from the ground angle where one passes the statue. However, they can be clearly seen from the offices of scientists working in ERC, which is an unintended (yet fitting) reminder not to lose one's own humanistic values in pursuit of grant funding or academic clout. They are ghosts of the past, and for the weeks to come, will be roaming the grounds where Chicago Pile-1 once lay. A nuclear winter, indeed!



Furthermore, I have realized that the legacy of this piece must be actively built, and I cannot rely on the merit of the art itself. This is a problem that I have seen elsewhere—such as in game development, though as a game designer, I was on the periphery of any attempts to secure publicity. Through these two projects, I have realized just how necessary it is for activists to forge connections (here, with nuclear abolitionists and news publications) and how demanding that process is. With demanding meetings and time-consuming grassroots effort to get members of the community involved, I was (finally) able to get this piece, and the die-in from last year, mentioned by the Maroon in an article that was published on Dec. 3 of this year, and am working with Norma Field, Yuki Miyamoto, and Dave Kraft to get the piece recognized in other publications. It is likely that in the weeks to come, those publications will include NEIS, Nuclear Hotseat, and the Chugoku Shimbun, but we are hoping for more as well. With more resources, planning, and connections, this project may have ended up as an Alternate Reality Game instead.

And there are certainly ways I could have improved the project with more planning. However, I think it was a success for what it was, and at the very least, it helped provide a moment of community and reflection on an otherwise grim anniversary. It is up to all of us to keep this dialogue fueled, because no one else will tend the flame for us.

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