WEB-ONLY | CRITICISM (HTTPS://THEPOINTMAG.COM/CATEGORY/CRITICISM) | JANUARY 8, 2018

Nuclear Carnival

by Elena Comay del Junco (https://thepointmag.com/author/edeljunco/)

The Manhattan Project got its start—and its name—on the East Coast, in an office building on the lower stretches of Broadway, before moving on to the southwestern deserts and finally to Hiroshima and Nagasaki on the other side of the Pacific. On its westward journey, it made a stop in Chicago: the first self-sustaining nuclear reaction went live under the stands of the University of Chicago's abandoned football stadium and the supervision of exiled Italian physicist Enrico Fermi. Perhaps the location was chosen deliberately: the university had abolished its varsity sports teams in the Thirties in order to instill a more rigorous, scientific atmosphere. This critical stopover in the Midwest is not one that the University of Chicago would like anyone to forget. In commemoration of the 75th anniversary of the first artificial nuclear reaction, it staged a series of events culminating in the release of a rainbow-colored mushroom cloud by the Chinese art star Cai Guo-Qiang from the roof of the main library, which was built in the late Sixties next to the site of Fermi's reactor.

As the press materials for the event explained, coloring in the mushroom cloud was meant to represent the dual nature of nuclear energy—the representation of its "most destructive form" is enlivened "with color as a profound symbol of creativity and peace." This was appropriate since, according to the PR write up, the Manhattan Project itself had a "complex legacy," and nuclear power has a "paradoxical," "yin-yang nature": the work is meant to capture the inseparability between the good, creative side of nuclear energy and the wicked, destructive one. Of course, the same physical processes allow the flattening of cities and the treatment of cancerous tumors. Is it so self-evident though that radiation therapy, or nuclear power (perhaps more controversially), can't be had without thousands of nuclear-armed intercontinental ballistic missiles pointed at one another across the Pacific?

At 3:25p.m. on December 2nd, 75 years to the minute after Fermi's reactor achieved criticality, Cai's cloud explosion was set to go off. A crowd of several hundred gathered next to Henry Moore's *Nuclear Energy*, a sculpture commissioned by the university for the 25th anniversary of the experiment and placed on the site of Fermi's reactor. Moore's sculpture takes the shape of an abstract bronze mushroom cloud and the configuration of its contours and and cavities are said to evoke a human skull. If More's sculpture borders on moralizing literalism, Cai's remarks before the performance repeated the press release: nuclear energy is a subject of enormous "complexity and sensitivity," all the more since we live in a "sensitive and complicated time." None of this complexity seemed to prevent a slight air of carnival. Curious passersby and their dogs enjoying an uncharacteristically warm Chicago afternoon, undergraduates taking a break from exam revisions. Most of the

audience had their phones trained squarely at the library rooftop while they waited for the spectacle to begin. One man walked back and forth with an American flag on a stick, held firmly over his shoulder. No one seemed particularly attuned either to complexity or sensitivity. For the most part, the briefness of the display seemed to leave the audience confused: a single blast, which unfurled into a loose, multicolored mushroom cloud that dissipated in less than half a minute. Once it became clear that this was all there was to see, a half-hearted round of applause went up, followed by a cheer.

●

At the turn of the millennium, the U.S. Department of Energy held a contest for a monument to be placed over a massive nuclear-waste disposal site in the New Mexico desert. The monument was to deter any future of human beings from tampering with the ground and releasing the toxic substances buried there. In the reading of the art historian Julia Bryan-Wilson, the episode marked a shift in the aesthetics of the nuclear threat. Instead of a singular and instantaneous explosion, represented visually by the equally singular and iconic mushroom cloud, nuclear power now threatened as a slow moving, invisible toxicity that would poison anyone who encountered it for ten thousand years and which seemed to defy representation.(Though the monument was never built, the winning entry avoided any direct reference to nuclear power in favor of a generically ominous field of spine-like stone columns.)

The University of Chicago piece wasn't Cai's first attempt to turn the mushroom cloud into an art object, either. In the late Nineties, he set off small, handheld smoke bombs in front of the Trinity test site in New Mexico (where, in 1944, Fermi's Chicago experiment found its culmination in the detonation of the first atomic bomb) as well as on the New Jersey waterfront, with the still-standing World Trade Center in the background. That earlier aestheticization of destruction worked. The presence of the artist's figure holding the firecracker, the relatively small scale of the pieces, the ephemerality of the small clouds of white smoke hanging in front of the expanse of desert or skyline—these all were in tension with the reference to apocalypse contained in the faint outline (in the photos, you can see a mushroom cloud if you know what you're looking for, but it's ambiguous). There was no grandiosity in the earlier series; the rainbow mushroom cloud in Chicago, meanwhile, was seventy-five meters tall and required the services of a professional pyrotechnics firm. The impulse to blow things up (in more ways than one) is symptomatic of many artists who specialize in creating "immersive" or atmospheric sculpture. The massive, hyper-choreographed environments created by Olafur Eliasson's army of technician-laborers or Anish Kapoor's monumental sculpture installations come to mind as analogues.

Cai's pronouncements about nuclear warheads as aesthetic phenomena certainly contain more than a streak of grandiosity. He once wrote that "the mushroom cloud constitutes a beautiful, monumental image. It is the visual creation that symbolizes the twentieth century, overwhelming all other

artistic creations of its time." That language echoes the U.S. War Department's own unabashedly aesthetic description of the initial tests in their press release:

> At the appointed time there was a blinding flash lighting up the whole area brighter than the brightest daylight. A mountain-range three miles from the observation point stood out in bold relief. … Immediately thereafter, a huge multi-colored surging cloud boiled to an altitude of over 40,000 feet. Clouds in its path disappeared. Soon the shifting substratosphere winds dispersed the now grey mass.

That sense of drama and awe—of the sublime—became a staple of descriptions of the bomb, from the crewmembers of the *Enola Gay*(which delivered the bomb that flattened Hiroshima) as well as Salvador Dalí and Jackson Pollock, both of whom considered the mushroom cloud to be the supreme visual phenomenon for modern art to reckon with. Perhaps we have become less tolerant of this kind of aestheticization of disaster; consider the opprobrium that greeted Karlheinz Stockhausen in September 2001 when he suggested a similar interpretation of the World Trade Center attacks as a spectacle. Despite his somewhat old-fashioned theorizing of the aesthetics of destruction, Cai's earlier mushroom cloud pieces also engaged quite deftly with this question of whether and how to treat annihilation as an aesthetic object.

In the Nineties, Cai also set off tragicomic approximations of bomb blasts in front of Land Art pieces in the same desert landscapes that witnessed early nuclear tests. In one of the images from that series we see Cai from behind, standing on a height of land overlooking Robert Smithson's *Spiral Jetty.* The composition, with a solitary, silhouetted figure against a wide open, desolate landscape has an ancestor in romantic paintings of wild landscapes and the intrepid men who surveyed them. Like Caspar David Friedrich's *Wanderer above the Sea of Fog*, Cai stands gazing downward over the horizon. But it is a landscape that has been reshaped, itself turned into an art object. From Cai's right hand, held up in a statue-like pose, the mini-mushroom cloud rises and fills the center of the image, partially covering Smithson's jetty, already somewhat faint in the haze. In addition to turning the bomb into an art object, the image seems to suggest an urge to shape and control the natural world latent in the Land Art movement.

Even more basically, though, Cai's earlier mushroom cloud pieces worked so well because of the way they played with scale, shrinking the literally superhuman size of an atomic bomb's explosion down to a barely larger-than-human-sized puff of smoke. The miniaturized, human scale of the form forestalls the usual aestheticization of mushroom clouds as awesome, sublime. And by creating work that is consumed in the form of images, rather than performances, Cai's first mushroom cloud series is viewed in the same way as nuclear explosions themselves are witnessed (for most of us, anyway)—that is, mediated by photography. There is actually much more of a visual likeness

between Cai's 1990s series and the photographs of nuclear explosions than his mushroom-cloud-shaped fireworks bear to actual nuclear explosions (though never having witnessed one, I am forced to speculate on this point).

That earlier series, then, does far more work than coloring in a symbol of destruction is capable of. Besides failing to question whether the "good" and the "bad" of nuclear power are really quite so inseparable, the use of color also seems to miss something basic but crucial about the semiotics of the mushroom cloud: namely, that it is already an ambivalent symbol. The fact is that there is hardly a consensus that nuclear weapons are even a necessary evil because there is hardly a consensus that they are evil at all. The press materials do, inevitably, refer to the "destructive" aspects of nuclear power. But no one, not even the most hardened pro-nuclear security advisor, would deny that nuclear weapons are destructive. That, from a military perspective, is precisely the point of having them around, at least as long as one can sustain the fantasy that only we, and perhaps close friends, will have them. A more contentious claim which the work—and certainly the curatorial-promotional staff—has consistently avoided making is that they are also evil.

By assuming that a mushroom cloud needs to be colored in for the so-called positive aspects of nuclear energy to be made manifest, the work neglects that for many people (Americans more than anyone) mushroom cloud is already a positive symbol, if also one of destruction. Using bright colors to represent the good side of of mushroom clouds makes too easy the so-called "duality" of nuclear power. To understand this, simply imagine setting off a mushroom cloud that looked like a mushroom cloud (that is, without the rainbow) over

an American university campus. To his credit, Cai did just this over the ground-zero site at Hiroshima in 2008. In contrast to the earlier, handheld photo series, that work was on a massive, commercial scale. If it was heavy handed or moralizing, it was in the way Moore's sculpture is, by being overly literal. There was no talk in Hiroshima—even before the Fukushima disaster turned Japanese opinion strongly against non-military applications of nuclear power—about the "complex legacy" (and therefore, implicitly, the virtues) of the Manhattan Project.

Cai knows his audience. Seeming to grapple with the complexity of a human phenomenon of massive destruction that is entangled with creative potential fits the self-image of a research university perfectly. Less so, perhaps, celebrating its role in ushering in the era of the human capability for self-annihilation. Nothing makes the point more clearly than a glance at whom the University of Chicago chose to invite to its anniversary events. In its promotional materials, it notes with great pride that the sole living witness to the 1942 reaction will be present, a guest of honor at the celebrations. It is hard then not to ask what of the more than one hundred thousand survivors of the Hiroshima and Nagasaki bombings (known as *hibakusha*)? The issue cannot be one of feasibility of locating them, since there are long-established survivors' organizations that remain active in Japan. And, closer to home, there are more than a thousand survivors estimated to be living in the U.S. Some might suggest that focusing on the military applications and consequences of nuclear power would be outside the purview of the celebrations. But Fermi's reactor was part of a military project, designed with

the explicit and singular purpose of building a bomb. Inviting *hibakusha* to Cai's performance would have made setting off a psychedelic mushroom cloud uncomfortable. Why ruin the fun?