Deconstructing Nuclear Visions

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“I’m blown away that I made it through the twentieth century without being blown away.” James Bridle’s attempt to lighten the otherwise dark topics under discussion at the symposium Through Post-Atomic Eyes alluded to the exploitation of atomic science, for military and energy solutions beginning during the Second World War. But the anxiety expressed by Bridle’s joke, a seeming remnant from the last century’s Cold War culture, continues as an undercurrent of fear today. For, even as Fukushima’s long radioactive tail reaches Canadian shores—and it is just a sample of the nuclear particles let loose to roam the planet—nuclear arsenals are being revamped and reactor construction is surging.

Only an interdisciplinary approach deployed across various formats could take on a theme so layered with danger, history, conflict, and horror. In the Art Gallery of Ontario exhibition Camera Atomica, curated by John O’Brien in association with Sophie Hackett (July 8–November 15, 2015), archival materials and artworks spread across three large galleries illustrating the wondrous element of uranium in diverse ways: its mining, its processing, and the wreckage that it causes. Intertwined with the topic was the integral role of photography within nuclear research, the formation of an accepting public, and resistance through art and journalism. The accompanying symposium, Through Post-Atomic Eyes, organized by O’Brien and Claudette Lauzon (September 23–25, 2015), presented a mix of aesthetic and academic projects related to film, video, and photography. Additional images and essays were presented in the Camera Atomica catalogue, edited by O’Brien. Among the threads that tied together the exhibition, catalogue, and associated conference were the science, design, administration, imaging, victims, and activist critique of nuclear technology. The symposium also stretched this conversation into the current terrain of military drones and surveillance systems.

Establishing the exhibition’s eclectic curatorial direction and dark tone were two opening pieces. The first-ever x-ray image, made by Wilhelm Röntgen in 1895 of his wife’s hand, was accompanied by the words that she uttered upon seeing her spectral image: “I have seen my own death.” Installed nearby was a chandelier, one of thirty-one made by artists Ken and Julia Yonetani, from antique glass collected in Fukushima. The set of chandeliers represents all of the countries that have a nuclear energy industry, each sized in relation to the scale of its country’s nuclear industry. Canada’s is the largest. Hanging here, its black-light illumination revealed its sinister undertone as Day-Glo green. Produced in 2013, its title, Crystal Palace: The Great Exhibition of the Works of Industry of All Nuclear Nations (Canada), refers to an earlier, nineteenth-century, stage of technological hubris.

Many of the exhibition’s images are documentary in nature and were originally produced for scientific research or journalism. Following four images of the first atomic bomb test—the Trinity test, on July 16, 1945, in New Mexico—were pictures of human and urban wreckage caused by the next two “tests,” just weeks later, at Hiroshima and Nagasaki. Andrea Pinheiro’s Bomb Book (2013), displayed in a fallout shelter built inside the gallery, reiterates the tight timeline of the first nuclear “tests.” Each page in the grey-covered, twelve-volume set marks one of the world’s 2,450 nuclear bomb detonations. The names and dates, ordered chronologically, are printed at the top of the otherwise blank paper: Trinity, July 16, 1945; Hiroshima, August 6, 1945; Nagasaki, August 9, 1945; and so on.

The development of the high-speed photographic strobe gave its MIT inventor, Harold Edgerton, a privileged place in the history of photography. Of less renown was his development, under a lucrative U.S. defense contract, of technology that recorded incremental moments of atomic explosions. A series of four images made with Edgerton’s Rapatronic Camera was displayed here, the explosion’s otherworldly shapes captured mere milliseconds apart. Joseph Masco, in his symposium presentation, “Nuclear Flashblindness: American Self-Fashioning and The Scientific Photography of Nuclear Testing,” spoke about Edgerton’s work and other examples of photography’s entanglements with the bomb, and their contributions to bringing “nuclear culture” into everyday life. Collaborations between the Department of Defense, the Atomic Energy Agency, and private industry, notably Kodak, led to camera and film stock innovations that later migrated into the realm of public consumption.

Photography’s integration with bomb development was further illustrated through exhibition images that showed vast collections of cameras gathered in advance of tests (over
One hundred thousand exposures were made of the Trinity test alone. Cameras made pictures of bomb explosions, but also pictures of people watching them: viewers basking in rows of deck chairs were illuminated not by the flicker of Hollywood film, as the scene suggests, but by atomic glow. More grave were photographs of huddled soldiers forced to sit near explosions, hands held protectively over their eyes. In Carole Gallagher’s photo-text series of nuclear-exposed cancer victims, made in 1984, a veteran describes seeing right through his hands.

Although atomic research was extensive, release of this information for public consumption was closely controlled. Among the select, now iconic images were tightly cropped photos of the mushroom cloud. Arranged salon style in the exhibition were twenty-four reproductions of atomic imagery from Michael Light’s _100 Suns_ (2003), their warm orange-red sunset colours suggesting scenic calendar images.

Such “atomic picturesque” or “atomic kitsch” (the latter term including pop-culture cocktails and sexy swimwear named after military culture, such as the bikini, after the Bikini Atoll tests) differed from the aesthetic of the spectacle or “atomic sublime” illustrated in Bruce Conner’s thirty-six minute film _Crossroads_ (1976). Supporting
Masco’s research on the intensive use of photographic media, Crossroads splices together multiple film fragments of the 1945 Operation Crossroads Baker test at Bikini, taken from different perspectives (the test’s main location was chosen for its central vantage point for the five hundred cameras that recorded it). In seemingly endless repetition, the succession of film fragments, slow at first, increases in frequency in a crescendo of visual pleasure. Adding to the trance-like seduction is Terry Riley’s minimalist, Eastern-influenced soundtrack.

The invisible inside of these aesthetic constructions was the trauma and morbidity that they dispersed. Devices such as Geiger counters register radioactive particles, but so do light-sensitive photographic materials. Shimpei Takeda “printed” atomic debris when he developed unexposed photographic paper that had been covered with soil from Fukushima. Two “radio contact prints” in the exhibition revealed microcosmic galaxies of radioactivity (Trace, 2012). Invisible radioactivity is also found inside human and animal bodies. In her catalogue essay, “Radical Contact Prints,” Susan Schupli discusses “radio-autographs” made from contaminated fish from the South Pacific Proving Grounds, and aerial footage shot by Vladimir Shevchenko over the Chernobyl Exclusion Zone three days after one of the town’s nuclear reactors exploded. Compiled in Shevchenko’s film Chernobyl: A Chronicle of Difficult Weeks, the footage, fogged with radioactive debris and explosive sparks (exposure to which killed him a year later), showed “what radiation looks like.” In Schupli’s view, the “atomic shadows” of Hiroshima inhabitants printed onto pavement at the moment of their death suggests a revised photographic ontology—a less-mediated “unholy representation of the real.” If the eidōs of photography is death, as Roland Barthes determined in his meditation on the medium, Camera Lucida, these must be the ultimate examples.

Far removed from nuclear plants and weapons testing are the radioactive bodies of uranium mining communities. The Ukrainian town of Zholtye Vody, the hub of Soviet-era uranium mining and enriching, was the subject of Donald Weber’s Into the Half Life (2009). Presented in the exhibition, the video deftly combines still photographs, moving footage, sound, voice, and text. Interchanged with images of the dying and diseased townspeople are shots of them trying to carry on a normal life—boys jumping into the river, a bride posing within verdant greenery. Their voices emerge between Weber’s gentle questioning and the rush of river water: “As a kid, we would play on huge mountains of uranium. On the rocks, on the hills, all uranium. It was great fun.” and, “We still live here, but all our neighbours die of cancer.” Although over two-thirds of the town’s population have been afflicted by cancer, illness, and death, the mine is set to reopen.

Contamination also affects Canadian communities. Most Canadian uranium ore mined from the 1930s to the 1980s was refined in Port Hope, Ontario. During the symposium Blake Fitzpatrick and documentary photographer and nuclear activist Robert Del Tredici reported on the town’s performed normalcy amidst danger. Even as nuclear-storage solutions are shifted around, ageing nuclear plants, clustered heavily around Lake Ontario, are being refurbished.

A poetic meditation on trauma and healing and travel to Fukushima was offered at the symposium. Julie Salverson and Peter van Wyck told of the Dene who, from 1942 to 1960, transported uranium ore destined for the Manhattan Project from the government-controlled Deline mine in Canada’s Northwest Territories. After learning that what they had carried in sacks went into the bombs that destroyed Japanese cities, a delegation from among their own exposure survivors travelled to Hiroshima to apologize. The nuclear particles now arriving on Canada’s shores are, at least metaphorically, like spawning fish returning to their origin.

Although the major powers’ current military strategies continue to be founded on nuclear deterrence (exceptions include the United States’ deployment of depleted-uranium dirty bombs in Iraq), it is counter-insurgency and non-nuclear strategies that predominate in war-making today. Symposium presenters discussed a spectrum of current military strategies: Rehab Nazzal’s video work was a moving plea against Israel’s violent occupation of Palestine. Eyal Weizman explained how “forensic architecture” can uncover the hidden particulars of military violence. For example, analysis of bomb-cloud images uploaded to social media sites from Palestine concluded that the destructive weapon was U.S.-made. Derek Gregory spoke of drone attacks, also orchestrated by the United States, and quoted the sad
statement made by a Pakistani boy whose grandmother was killed while in the fields: “I no longer love blue skies. In fact, I now prefer grey skies. The drones do not fly when the skies are grey.”

James Bridle, whose Dronestagram project (2012–15) disseminated U.S. drone strike details through an app, considered current deep-state power. In his talk, “Big Data, Nein Danke,” he mapped earlier periods of popular resistance, specifically the “elegant” tactics of Britain’s anti-nuclear movement, onto today’s subversive strategies against the surveillance state. His provocative conclusion: WikiLeaks-style information gathering in resistance to NSA-style information gathering adds to information overload but doesn’t significantly change the system. So many artists, hackers, and symposium participants pursue just such strategies. Although Bridle’s proposal risks rendering that work futile, it prompts greater imagination in countering state violence.

Karen Barad’s concluding synthesis of physics, post-structuralism, and Eastern spirituality began as a primer on quantum theory (including the still-startling scientific finding that nuclear fission occurred naturally billions of years ago in Gabon) but evolved into incantatory performance, mixing the poetic, personal, and political in recognition of the Other.

The interdisciplinary model operating in these collective and individual projects produced a creative dynamism that should not be contained exclusively within academic and museum realms. If this model—of engaging disciplinary spheres with critical issues—were extended into public and political spheres, might we move toward solutions to our problems, of the kind discussed here, as easily as nuclear elements slip through matter?

1 — For symposium website, speakers, and abstracts, see http://www.postatomiceyes.net.

2 — Through Post-Atomic Eyes presented this work along with three other atomic-related avant-garde films: Charles Stankievech, Zeno’s Phantasies, 2005, 7 minutes, b&w, silent, 16mm; Su Rynard, As Soon as Weather Will Permit, 2013, 15 minutes, colour, sound, digital; and Lydie Jean-Dit-Pannel, & A Fade to Grey, 2015, 28 minutes, colour, sound, digital.
