Operation Castle
Romeo Shot

Sergio Frutos
2017

Ink and acrylic on canvas
200 x 180 x 2 cm

Unique
Signed

SF-P 17-9

About this artwork:

Castle Romeo was the code name given to one of the tests in the Operation Castle series of American nuclear tests. Detonated on March 27, 1954, it was the first deployed thermonuclear bomb[1].

High-yield thermonuclear explosions cause enormous radioactive contamination to the environment. These “hydrogen bombs,” when tested on small islands in the ocean, vaporize the land and produce radionuclides that settle in the ocean sediment. Even decades later, significant contamination may remain in the sediment surface and deep into the sediment layers[2].

This particular image of the Castle Romeo fireball has been one of the most highly reprinted images of a nuclear explosion, often serving as a stand-in for nuclear weapons in general for news stories, book covers, magazine articles, and even congressional reports or as a backdrop for the heavy metal band Megadeth's greatest hits compilation, likely because of its threatening appearance and extreme red, orange, and yellow hues[3].

1. “Operation Castle,” *Nuclear Weapon Archive*, 2006. ➞
2. Emlyn W. Hughes et al., “Radiation Maps of Ocean Sediment from the Castle Bravo Crater,” *Proceedings of the National Academy of Sciences* 116, no. 31 (July 30, 2019): 15420–24. ➞
3. “Greatest Hits: Back to the Start,” in *Wikipedia*, June 1, 2025. ➞

About the project: Atom

[…]
“And so?” you ask your guide, *the nice one*.
“So, we learned to make stars,” he answers.
“I thought you told me that this was already like a sun.”
“Oh, yes, but it's not a real sun. Real suns don't work like that. They're much more powerful. So we made real stars.”
“I can't believe it.”

“And what do you think that white powder you've got there and this thermos I've got here are for?”
“The stuff that stars are made of?”
“Yes. And nightmares.”

> Antonio Cantó, “Así funciona un arma termonuclear. (How a thermonuclear weapon works)” *La pizarra de Yuri: historias de ciencia al calor del fuego (Yuri's blackboard: science stories by the fire)*. Guadalajara ; Madrid: Silente, 2011. ➞

The project Atom is based on archival photographs from nuclear tests and revolves around how the ‘atomic age’ is a turning point[1] and to which extent human stupidity can destroy the world we live in. Is possible the survival of humanity and living beings with whom we share the planet as we know it under the current system?.

The phrase “atomic age” has been around since 1945 in reference to the world’s reframing by the newfound human control over nuclear forces. Nuclear weapons prompted both apocalyptic visions of humanity’s annihilation through mutually assured destruction and promises of abundance, progress, and modernity through the utilization of atomic energy.

On the one side, the atrocities of mass destruction in Japanese cities, on Pacific Atolls, and other “testing sites” across the globe forever stamped the self-image of the human as an engineer of death. On the other side, harnessing nuclear power and the emerging nuclear sector were hailed as instruments of national security, a hotbed of technological innovation, a wellspring for electric household energy, and a radically modern means of investigating the natural world and improving human bodies and diets. But soon the smiling side of this Janus face faded, and threat of radioactivity became the scare phenomenon of the second half of the twentieth-century. Radioactive contamination has changed the natural and the social environment to an extent that brings a whole new register into focus: the possibility that life on this planet could end as we know it.[2]

Our current development, predating the planet, following the dictates of capitalism will certainly drive us to mass extinction.[3]

Production of steel requires iron, coal, and an immense amount of air which passes through the mix. Today, all the air on Earth contains traces of radioactive residues from the nuclear tests realized since 1945. The so produced metals contain contamination by radionuclides, interfering with the function of sensitive medical and technical equipment. Until recently,[4] scientists involved in the production of those devices sought metals uncontaminated by background radiation, referred to as low-background steel, low-background lead, and so on.[5]

For many years, for certain sensitive scientific instruments, it wasn't possible to manufacture on Earth steel or other metals without radionuclides, it had to be taken from shipwrecks sunken before 1945, as the German naval fleet that Admiral Ludwig von Reuter scuttled in 1919 to keep the ships from the British,[6] as lead has been frequently taken from roman archeological sites.[7]

Since the nuclear test race in 40s and 50s, the world has advanced in nuclear technology. Today, a nuclear bomb could target a large-scale attack, at a longer range, and with much greater destructive force. People are increasingly concerned about the potential destructive humanitarian outcomes. So long as nuclear weapons exist, it is inevitable that someday they will be used, whether by design, accident, or miscalculation. The danger of use of nuclear weapons is greater than ever before due to proliferation of nuclear weapons, terrorism, and political instabilities.[8]

1. Paul Crutzen and Christian Schwägerl, “Living in the Anthropocene: Toward a New Global Ethos.” *Yale E360*, January 24, 2011. ➞
2. A. Cundy, et al., “Radioactive Fallout as a Marker for the Anthropocene.” In: C. Rosol and G. Rispoli (eds) *Anthropogenic Markers: Stratigraphy and Context, Anthropocene Curriculum*. Berlin: Max Planck Institute for the History of Science, 2022. ➞
3. Troy Vettese, “A Marxist Theory of Extinction.” *Salvage*, January 1, 2019. ➞
4. Sam Westreich, “Good News! Our Steel is No Longer Radioactive!” *Sharing Science* (blog), *medium.com*, December 25, 2021. ➞
5. Ed Conway, “The Eerie Story of Low Background Steel.” Substack newsletter. *Material World*, June 10, 2023. ➞
6. Steven Brocklehurst, “Scapa Flow scuttling: The day the German navy sank its own ships.” *BBC Scotland News*, June 21, 2019. ➞
7. Clara Moskowitz, “Ancient roman metal used for physics experiments ignites science feud.” *Scientific American*, December 18, 2013. ➞
8. Shan Xu and Alicia Dodt, “Nuclear Bomb and Public Health.” *Journal of Public Health Policy* 44, no. 3 (2023): 348–59. ➞