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Nuclear Dynamite

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As late as the 1970s, American engineers had it in mind to widen the Panama canal with an unusual explosive: atomic bombs. Alaska almost had a harbor blasted into it care of five a-bombs. And plans were seriously discussed to extract oil from Alberta's Athabasca tar sands with a nine-kiloton nuclear explosion.

This "forgotten" story came to the attention of Gary Marcuse, director/producer of the feature documentary Nuclear Dynamite, in 1996 in the form of Dan O'Neill's book The Firecracker Boys.

"I thought what could possibly have been going on in their minds? The world has changed and the story has been forgotten.

"As soon as [scientists] invented the bomb, they realized they had this force and what extraordinary things they could do to the planet. Edward Teller ['Father of the H-Bomb'] called it geographical engineering. It was the first time they had that and it was intoxicating.

"The Russians had a [nuclear] program 10 times the size of the American one and they - like the Americans - started blasting a lot of holes in the surface [of the Earth] to see if they could make canals and harbors."

After various treaties brought atmospheric testing to an end, the Russians continued underground, using nuclear technology to blast dams and reservoirs, chambers for natural gas, and even pits for chemical waste.

On five occasions, a nuclear blast was used to put out gas well fires by way of creating a small earthquake designed to stem the flow of fuel.

Not knowing that even small amounts of radiation could hurt humans and the environment, scientists kept up the testing. Fortunately, says Marcuse, "they never did get to do very much of this," such was the power of the movement eventually raised against them.

The plans for the harbor blast in Alaska met with considerable resistance from the locals and soon grassroots movements sprang up in protest against atmospheric testing.

With time came the awareness that "radiation was getting around and was going to hurt children. A lot of radiation was getting into milk, and that discovery marked the beginning of the environmental movement," says Marcuse.

"In the u.s. and Canada, it was the early environmental movement that put sand in the gears. In Russia there was no environmental movement and they kept blasting till 1988. It was only after Chernobyl that it shut down. The Greens started getting some power in Russia and things nuclear became much more scrutinized. There was a gradual evolution of anxiety and fear, and political opinion turned against most things nuclear.

"I got interested in the fact that there was all this optimism and this feeling that they could do anything. It feels like things that are said today about other technologies. I thought it would be interesting to look at the '50s. It's kind of history of technology in itself, a way of thinking about technology and how the planet has changed. Before the '50s, no one had any idea of what a biosphere was, no one thought of the planet as connected system."

Marcuse says he sees a correlation between yesterday's geographical engineering and today's biological engineering.

"They were optimistic for the period and later the bad news came. It's an interesting parallel."

The doc is a coprod between the National Film Board and Marcuse's company Face to Face and was presold to cbc's The Nature of Things (it opens the series' new season Oct. 5). The doc premiers at the Vancouver International Film Festival and has just been invited to the Hawaii International Film Festival. *