

Nuclear Weapons

the Canadian connection

Created for World Beyond War
August 6 2022

by Gordon Edwards, President,
Canadian Coalition for Nuclear Responsibility
featuring photographs of Robert Del Tredici

Uranium is the
key element for
nuclear fission

- nuclear weapons
- nuclear reactors

There would be
no weapons
& no reactors
without uranium



Photo : Robert Det Tredici

"The unleashed power of the atom has changed everything
except our ways of thinking, and thus we drift
toward unparalleled catastrophe"
— Albert Einstein

Broken pieces
of a uranium atom

Soviet-era monument to the splitting of the atom

Photo : Robert Det Tredici

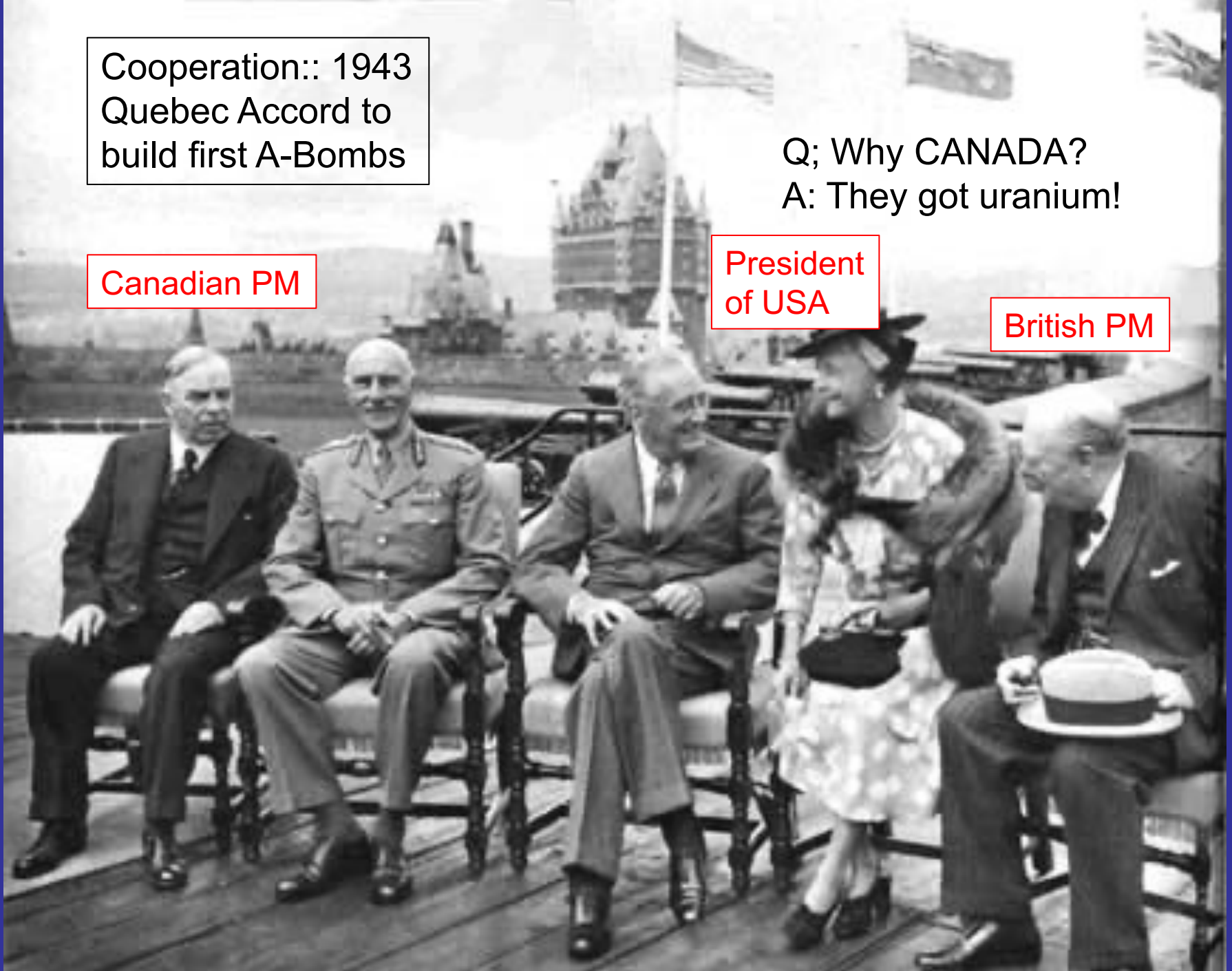
Cooperation:: 1943
Quebec Accord to
build first A-Bombs

Q; Why CANADA?
A: They got uranium!

Canadian PM

President
of USA

British PM



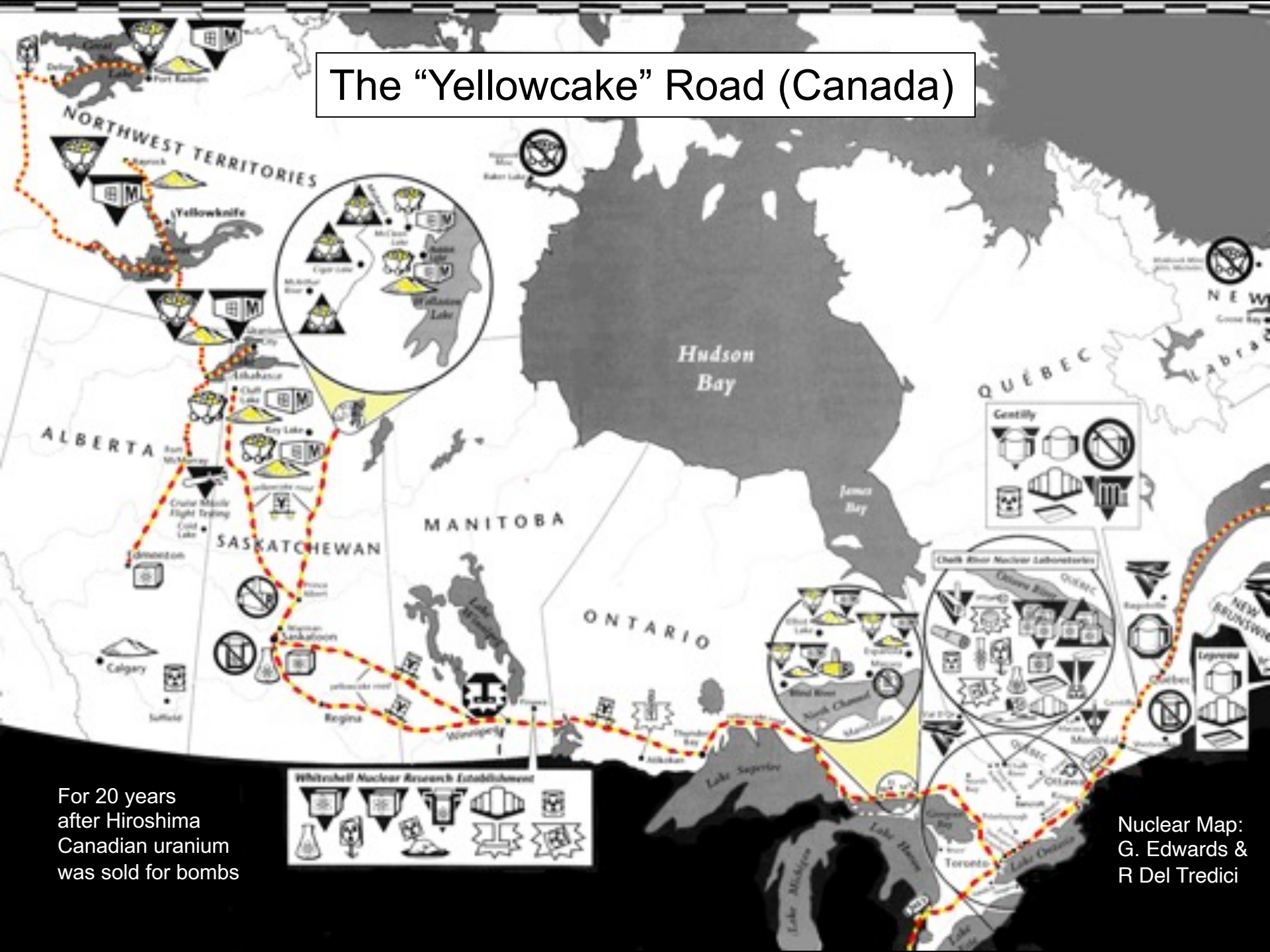
A black and white photograph of two atomic bombs in a museum. On the left is the 'Fat Man' bomb, a large, bulbous, egg-shaped device with a long, cylindrical tail fin assembly. It is positioned horizontally. To its right is the 'Little Boy' bomb, a much smaller, more compact, and cylindrical device, also positioned horizontally. In the background, there is a doorway with an 'EXIT' sign above it. To the left of the bombs, there is a display case with two circular openings showing internal components. The floor is a light-colored, polished surface.

**Fat Man:
Nagasaki
(Plutonium)**

**Little Boy:
Hiroshima
(Uranium)**






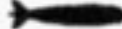

































1945

The "Yellowcake" Road (Canada)



For 20 years
after Hiroshima
Canadian uranium
was sold for bombs

Nuclear Map:
G. Edwards &
R Del Tredici

USES OF CANADIAN URANIUM			
MILL SITE	URANIUM USE		
▼ PORT RADIIUM. NWT			
▼ RAYROCK. NWT			
URANIUM CITY. SASK.			
▼ BEAVERLODGE			
▼ GUNNAR			
▼ LARADO			
OTHER SASKATCHEWAN			
CLUFF LAKE			
RABBIT LAKE			
KEY LAKE			
▲ MCCLEAN LAKE			
OTHER ONTARIO			
▼ AGNEW LAKE. ESPANOLA			
▼ PRONTO. BLIND RIVER			
MILL SITE	URANIUM USE		
ELLIOT LAKE. ONT.			
▼ LACNOR			
▼ NORDIC			
▼ STANROCK			
▼ SPANISH-AMERICAN			
▼ MILLIKEN			
▼ STANLEIGH			
▼ QUIRKE			
▼ PANEL			
▼ DENISON			
BANCROFT. ONT.			
▼ DYNO			
▼ BICROFT			
▼ FARADAY			
▼ MADAWASKA			
		 ... for export (from 1968)	
<i>uranium for bombs (1941-1968)</i>		 ... for CANDU (from 1968)	

This chart from the Nuclear Map of Canada shows uranium mills that produced uranium for nuclear weapons and for nuclear reactors



Nuclear Weapons Designer with some “pretty pictures from the early days”
Each of these bombs has some Canadian content via uranium sold to USA

Photo : Robert Det Tredici

HIGH ENRICHMENT IS NECESSRY FOR A URANIUM A-BOMB



Uranium enrichment plant – increases U-235 content

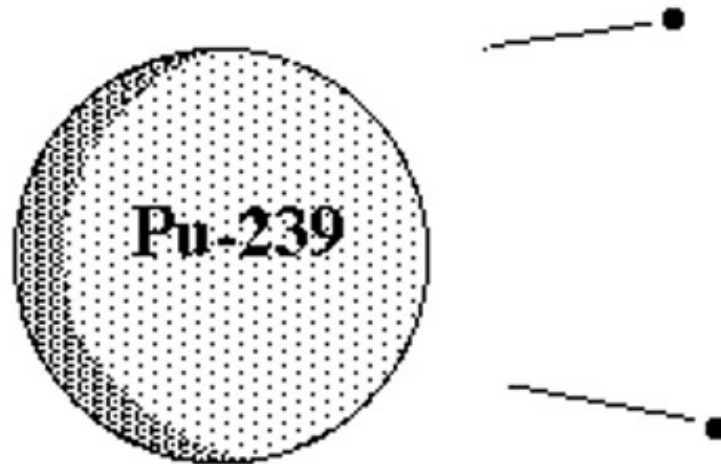
Photo : Robert Det Tredici

Plutonium is a uranium derivative created in a nuclear reactor

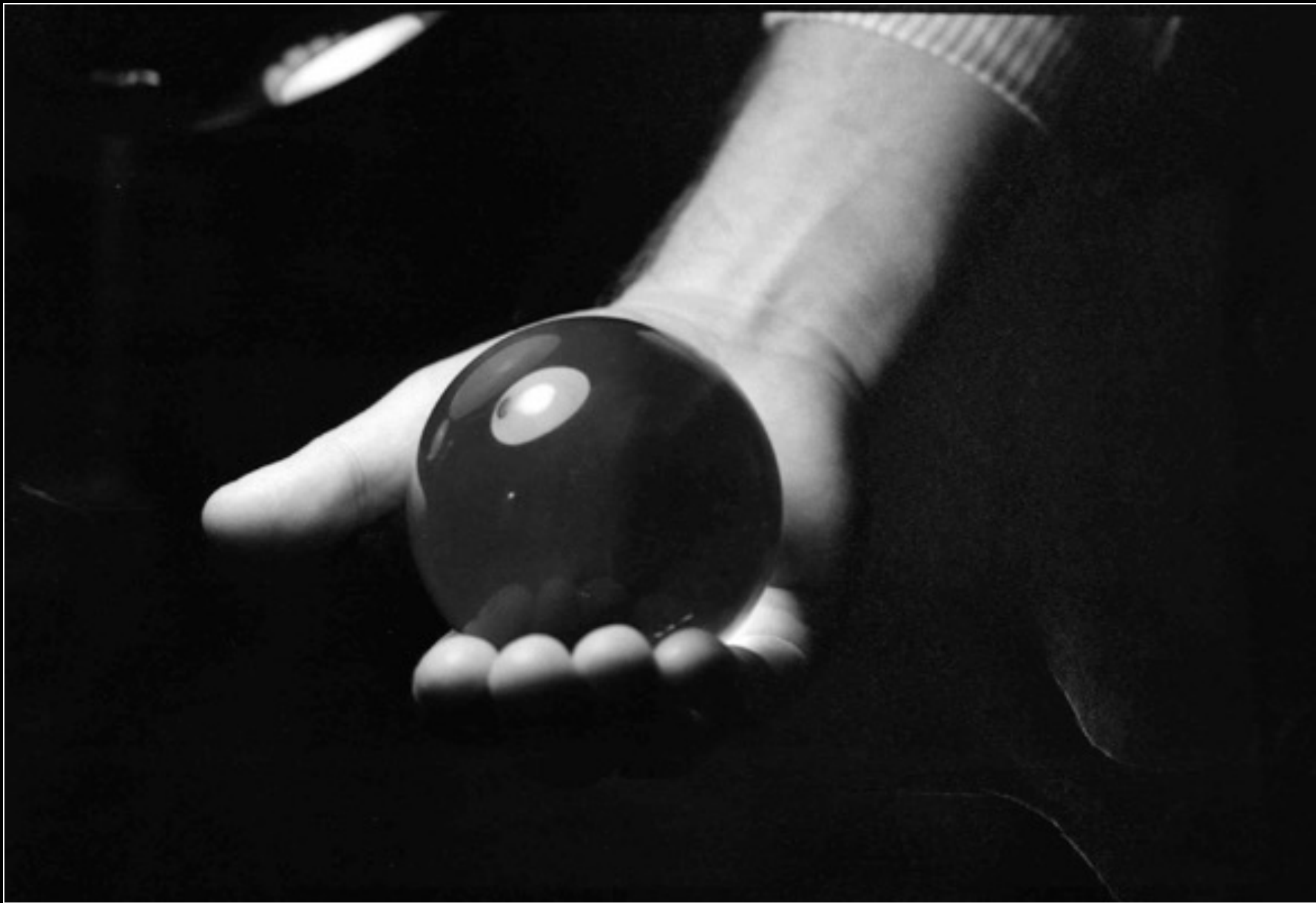


. . . after an atom of uranium-238 absorbs a neutron

Creation of plutonium in a nuclear reactor occurs ...



... when an atom of uranium-238 absorbs a neutron



This glass ball is the exact size of the ball of plutonium explosive in the Nagasaki bomb

Photo : Robert Det Tredici

Howard Morland
holds a model of
an H-bomb, with
a plutonium ball
as the “trigger”
(at the top)

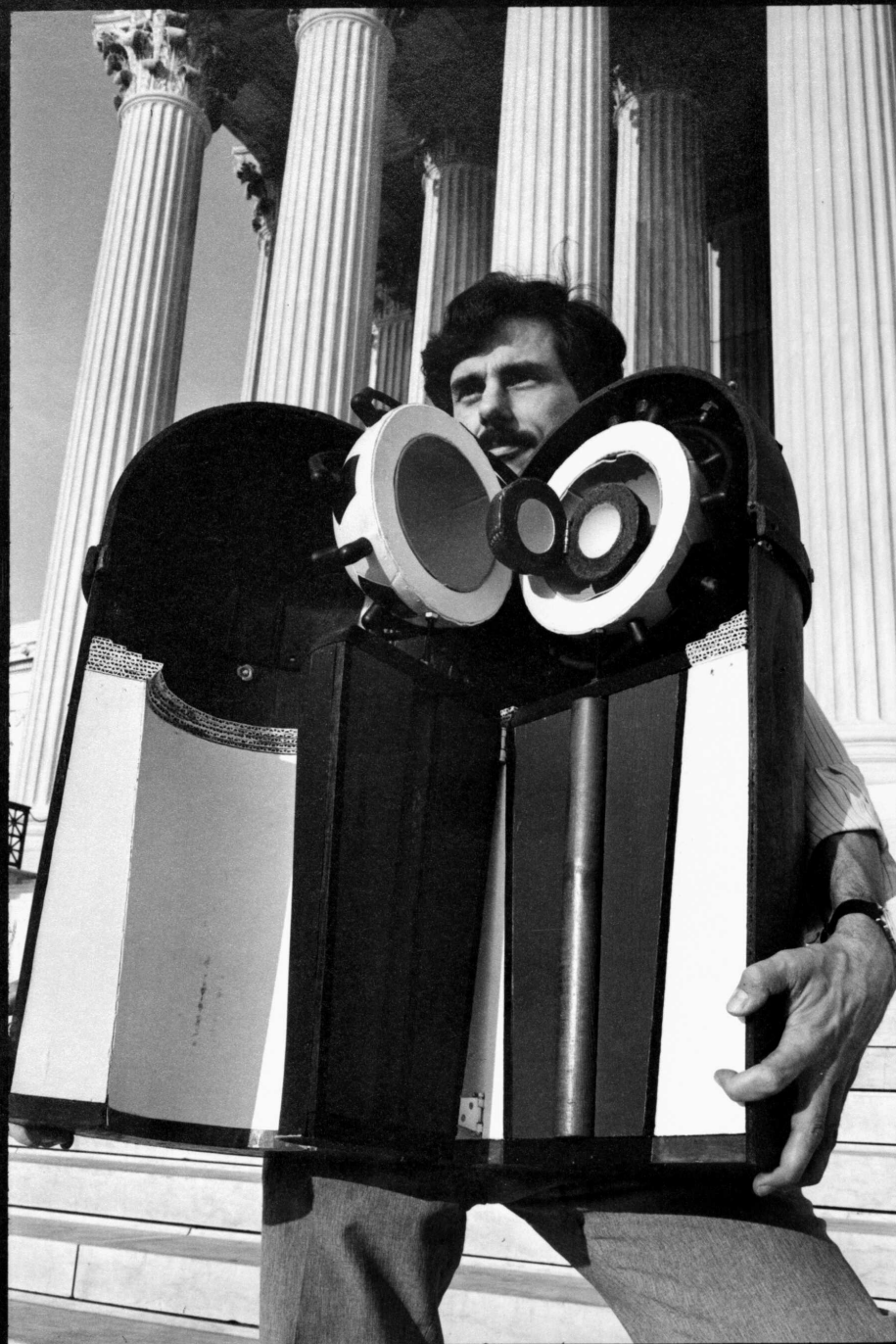
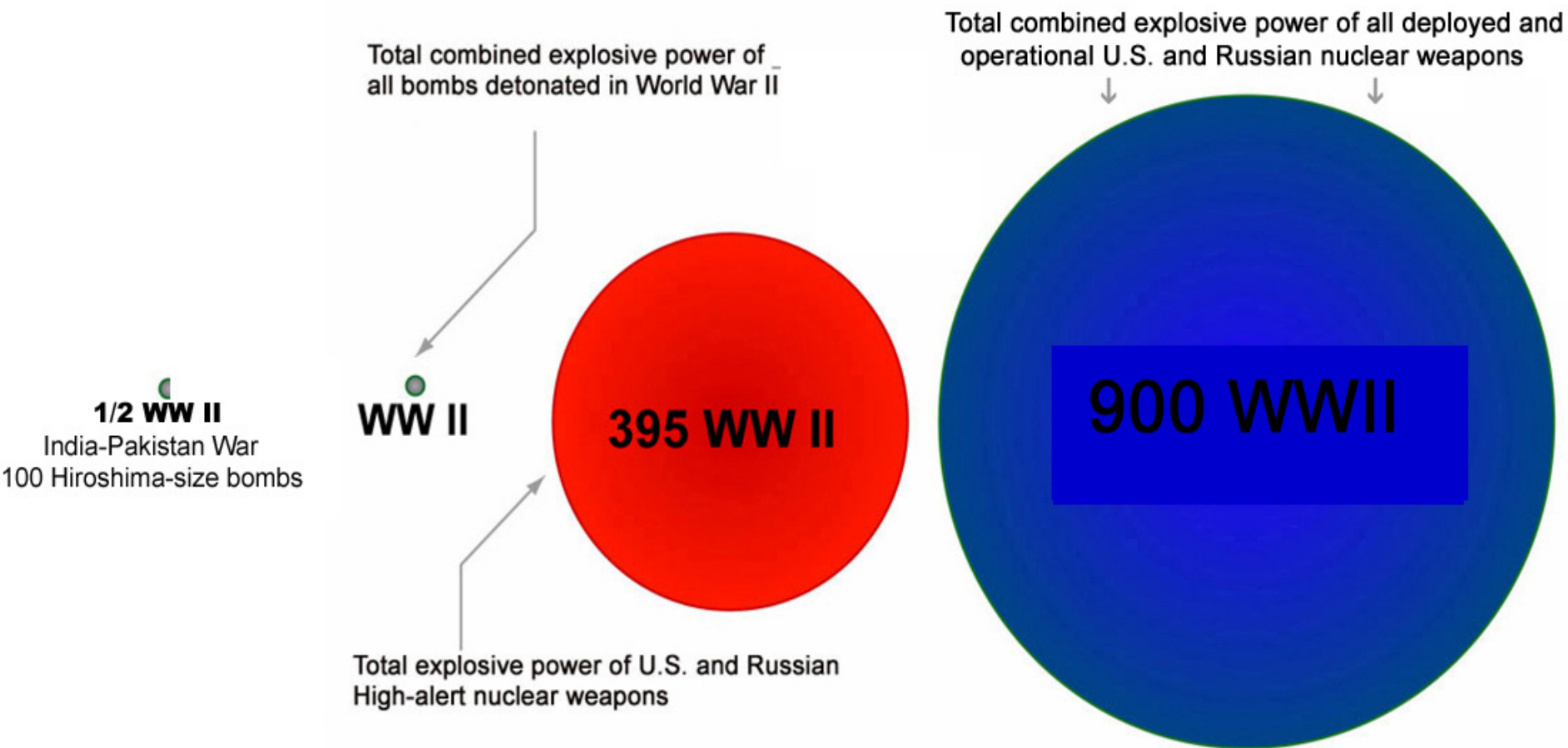
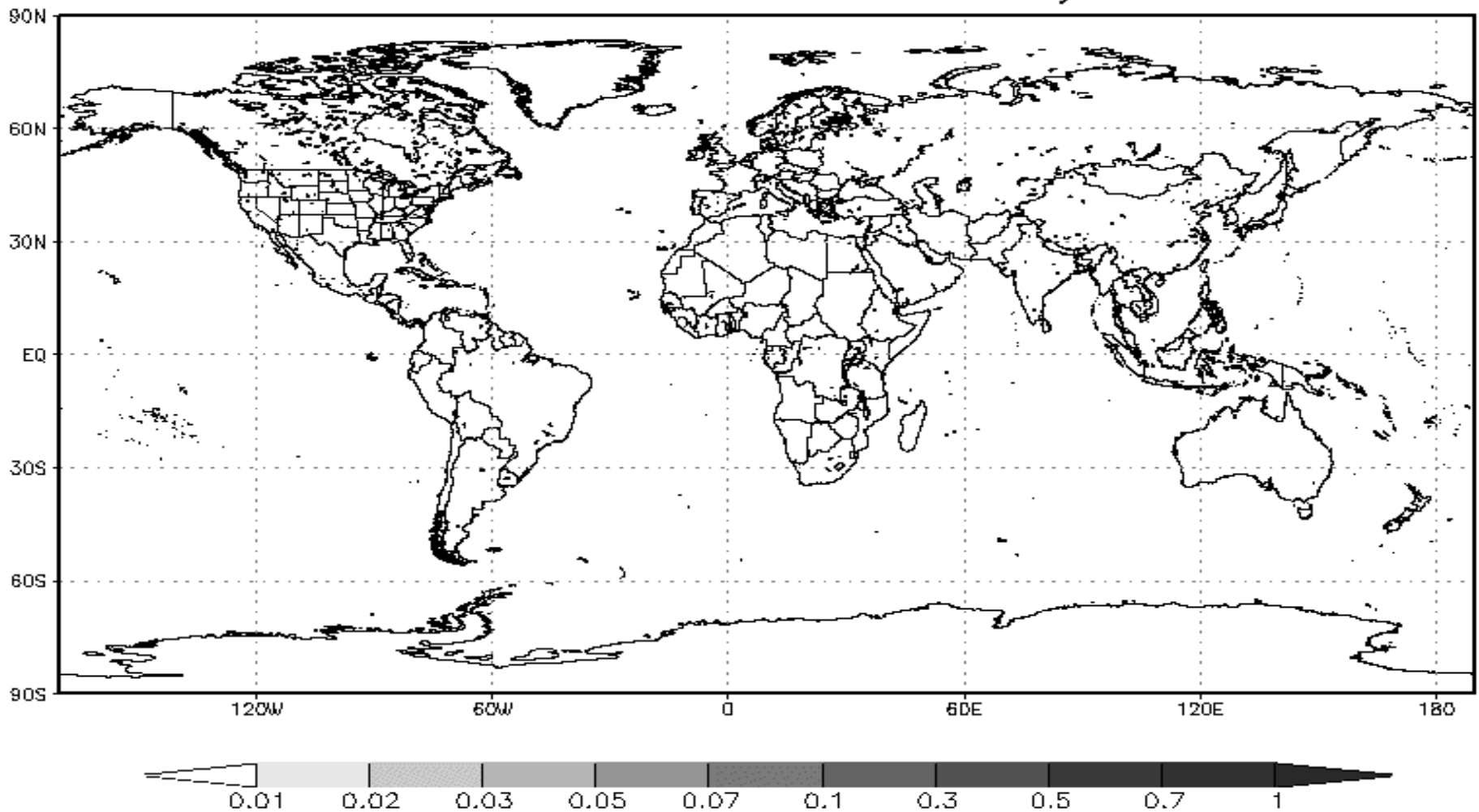


Photo : Robert Det Tredici



GREY DOT = all the bombs of WWII
RED DOT = all the nukes on High Alert
BLUE DOT = all the nukes deployed
Extreme left = bombs in a limited war

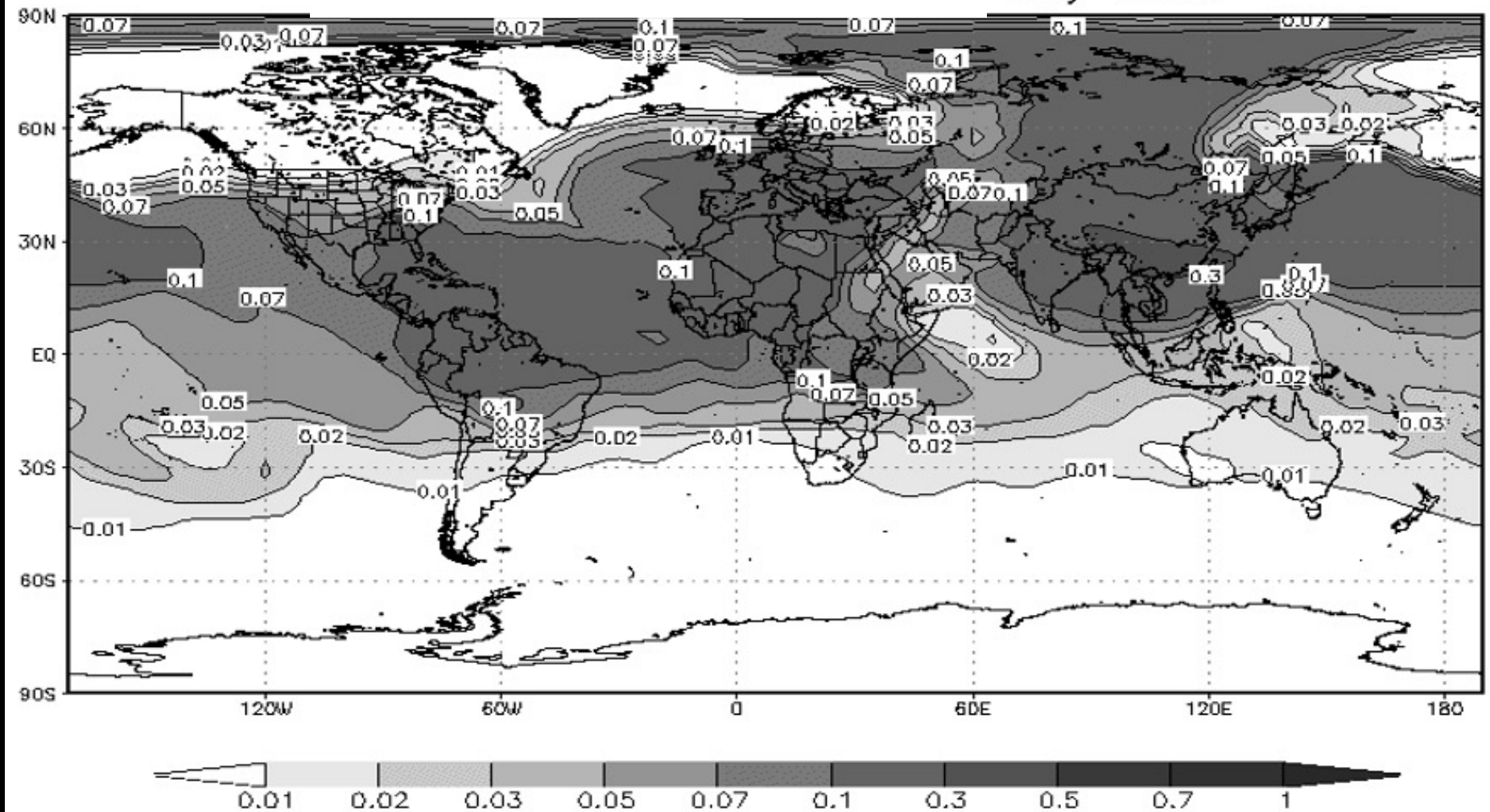
Limited Nuclear War May 14th



A “limited” nuclear war between (say) India and Pakistan may involve a few dozen “small” bombs on each side

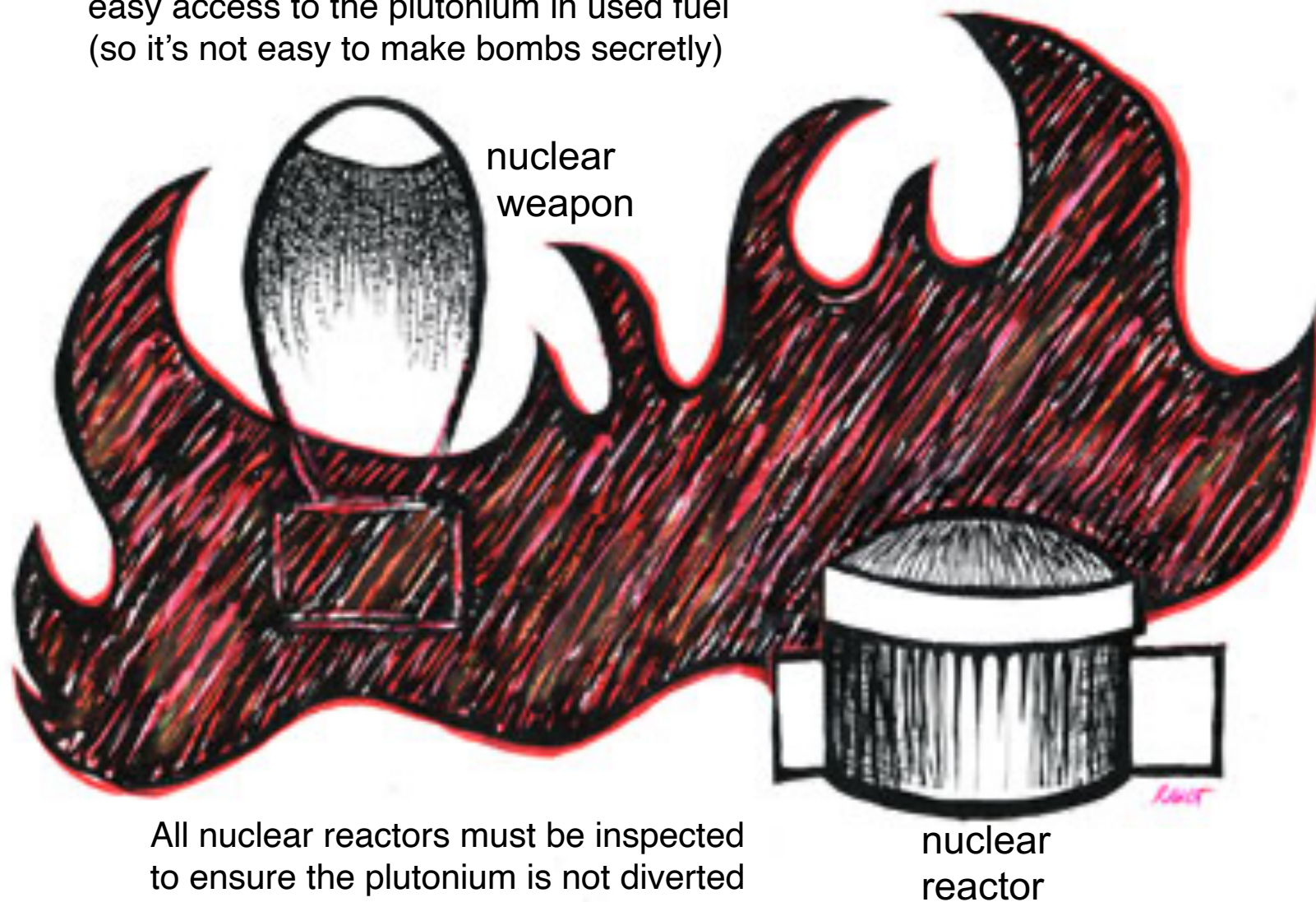
Limited Nuclear War

May 25th

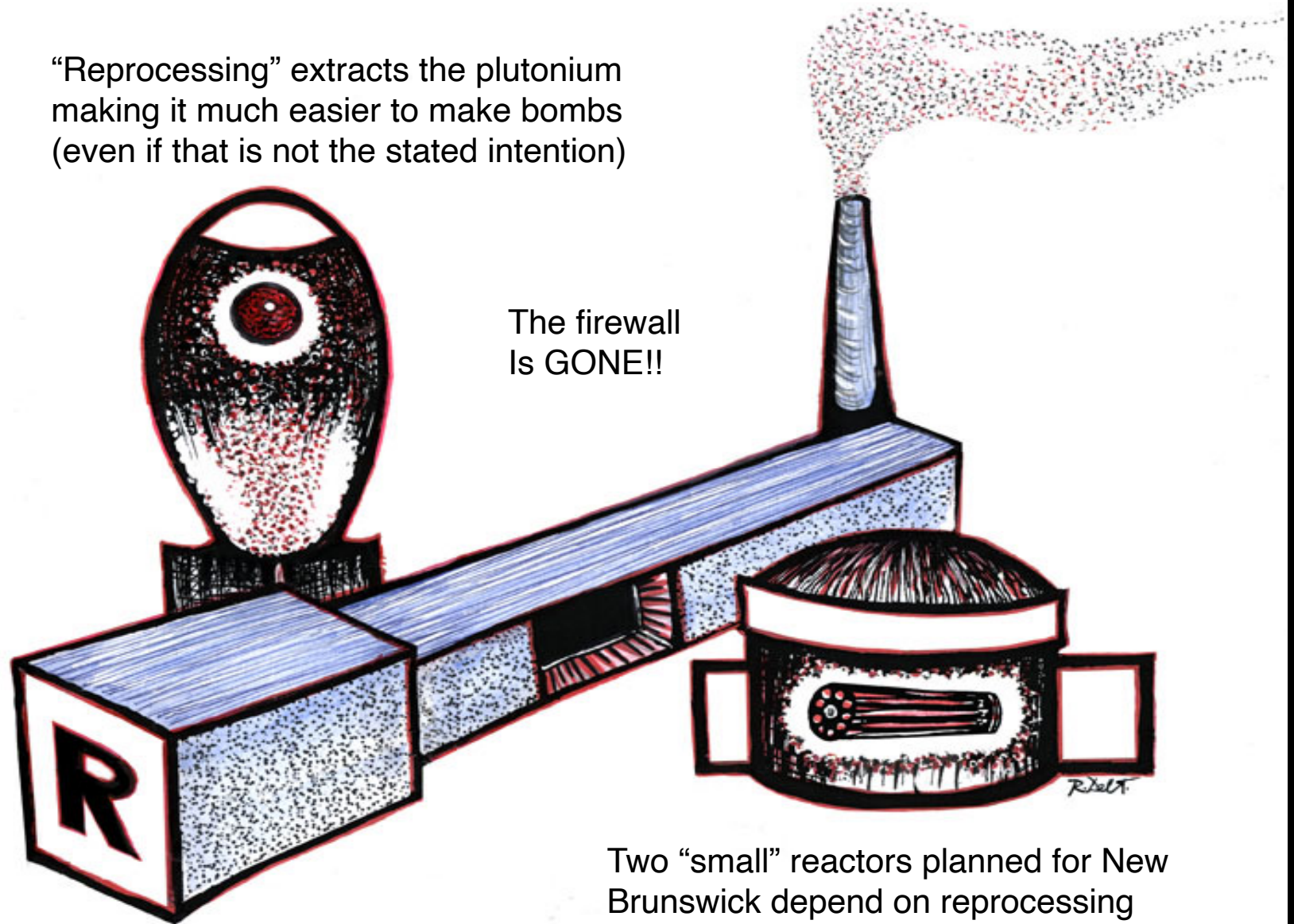


Thick smoke covers Northern hemisphere blocking sunlight severely limiting food production and causing global hunger

Radiation acts as a “firewall” preventing easy access to the plutonium in used fuel (so it’s not easy to make bombs secretly)



“Reprocessing” extracts the plutonium making it much easier to make bombs (even if that is not the stated intention)



The End

. . . or the beginning?

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