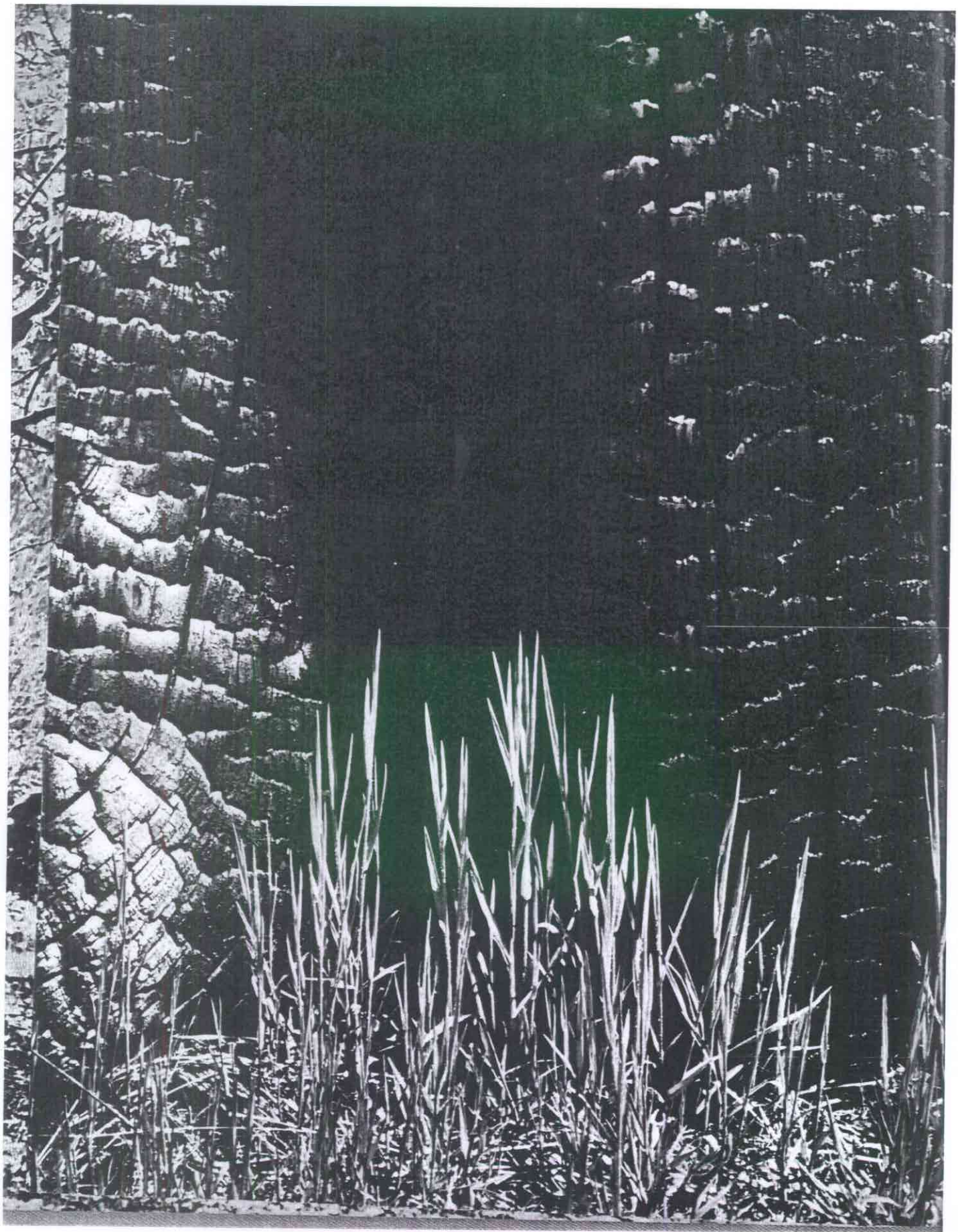


let
there
be a
world

by FELIX GREENE



Let there be
a world

by FELIX GREENE

PHOTOGRAPHIC CREDITS

inside front cover	Grass and Burned Stump	Ansel Adams, from "This is the American Earth," published by the Sierra Club, San Francisco
4-5	Mother and Child	Wayne Miller, Magnum
6-7	Lifeless Earth	Robert C. Lautman
(lower) 8	Ethiopian child	International Bank for Reconstruction and Development
(upper) 8	Chinese child	Felix Greene
(lower) 9	American girl	Hank Krantzler
(upper) 9	Venezuelan boy	Pan-American Union
10	Pin	Robert C. Lautman
11	Girl with milk	Rondal Partridge
14	Autoradiograms	<i>Nature</i> , London
15	Blind girl	Rondal Partridge
(upper) 17	Deformed babies	Japan Council Against A & H Bombs
(lower) 17	Deformed babies	Ternaki Tomatsu
18	Sorrowing mother	Hank Krantzler
19	Bomb explosion	Atomic Energy Commission
(left) 24	Two primitive figures	Andreas Feininger
(right) 24	Virgin and Child (c. 1300)	"Masters of European Sculpture," Harry N. Abrams
(left) 25	Virgin and Child by Michelangelo	"Michelangelo," Phaidon Press
(right) 25	Mother and Child by Milles	Robert C. Lautman
(left) 26	Temple of Aphaia, Aegina	Marin Hurlman
(center) 26	Megalithic Monument	"L'art et L'homme," René Huyghe
(bottom) 26	Temple of Heaven, Peking	Felix Greene
(right) 26	Cologne Cathedral	"Outline of European Architecture," Nikolas Pevsner
(center) 26	Le Dôme des Invalides à Paris	"Art et Secrets de Bâisseurs," Bodo Cichy
(right) 26	Apartment by Oscar Niemeyer	<i>Architectural Review</i> , London
28	The Silver Pavilion	Werner Bischof, Magnum
29	Market scene	Japan Tourist Association
30-40	Destroyed cities of Hiroshima and Nagasaki, and all pictures of dead and injured	Japan Council Against A & H Bombs
44-45	New York City	Fairchild Aerial Surveys
46	Missile production	U.P.I.
47	Launching at Cape Canaveral	Underwood and Underwood
48-49	Discarded fighter planes	Lloyd Shearer, courtesy <i>Horizon Magazine</i>
50	Hungry boy	Prentation Associates
52-53	Bridge span being raised, Venezuela	Hamilton Wright
54	Dam construction	International Bank for Reconstruction and Development
55	Playground	Ruth Sondak, F.P.G.
(left) 56	Road making, Guatemala	Pan American Union
(bottom) 56	Hospital, Africa	Marc Riboud, Magnum
(right) 56	Learning to write, Hokkaido, Japan	International Bank for Reconstruction and Development
57	Tractors and oxcart	International Bank for Reconstruction and Development
58	Crying child	Werner Bischof, Magnum
(upper) 60	Pensive Man, David Douglas Duncan	Phillipe Halsman
(lower) 60	Man in Leopoldville, Congo	Marc Riboud, Magnum
inside back cover	Mother and child	Rondal Partridge
Back cover	Children in wood	Hank Krantzler

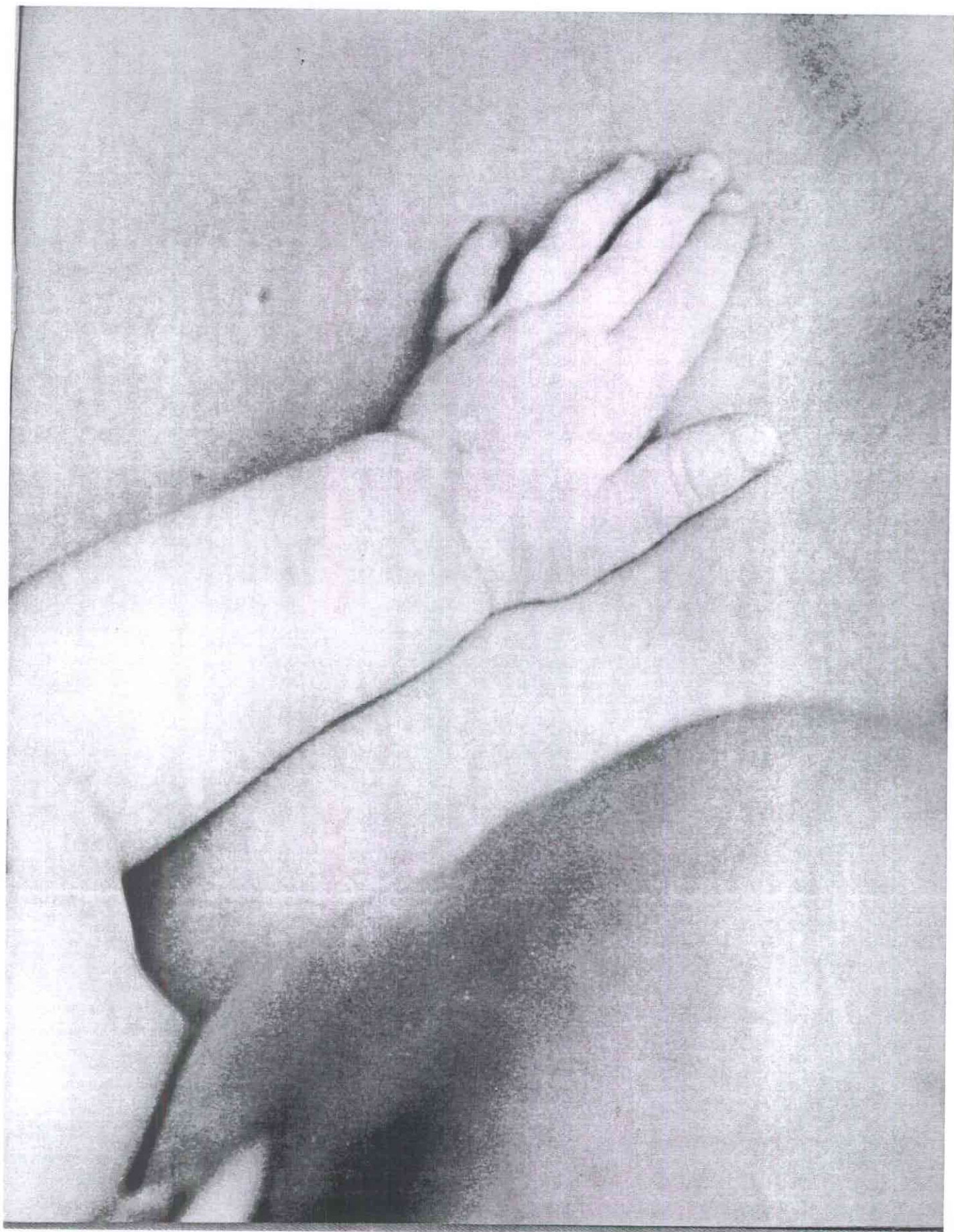
We wish to thank *Peace News*, of London for permission to quote from the pamphlet "Black Paper: H-bomb War."

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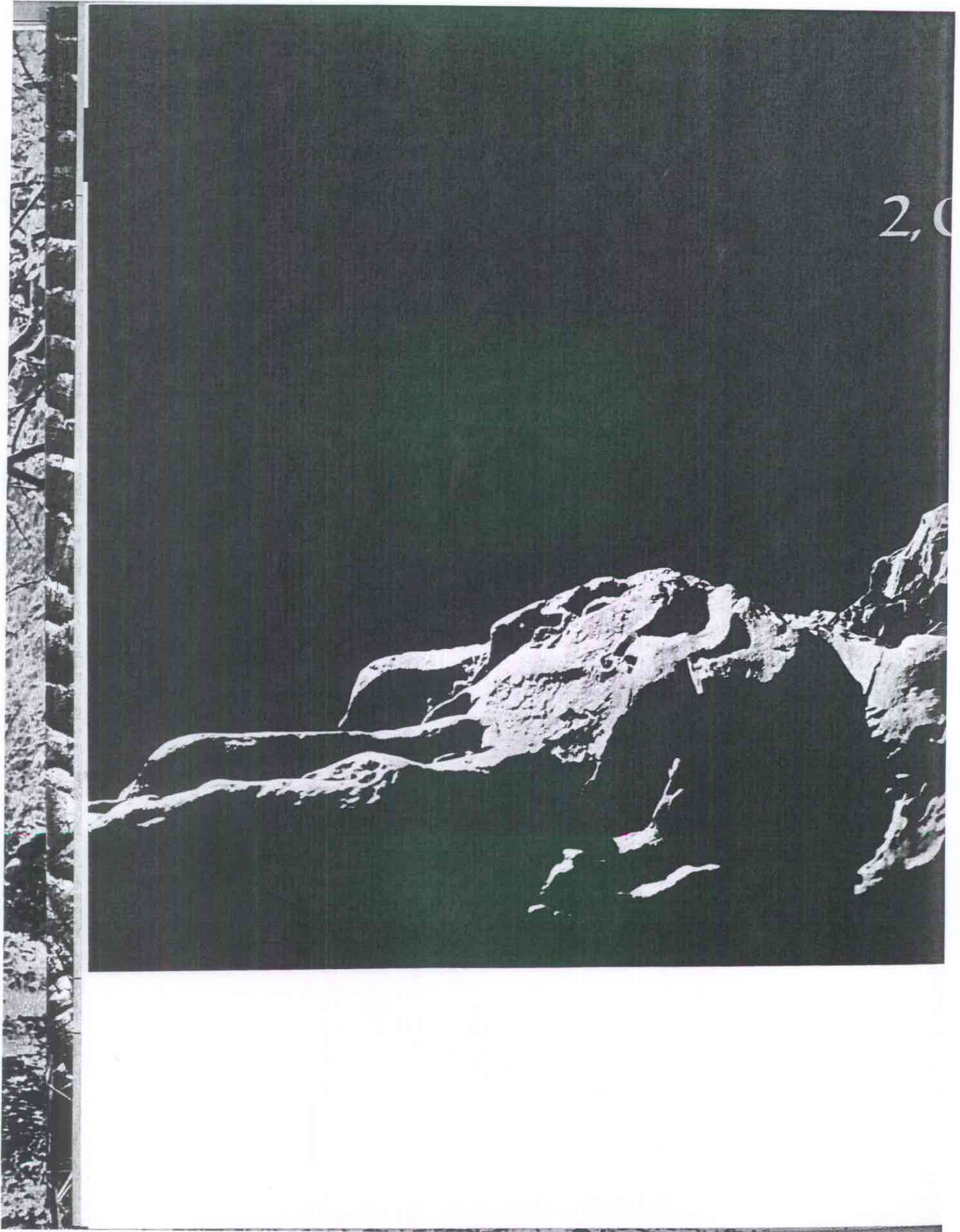
Designed by HUBERT W. LECKIE

CONTENTS

- I FALL-OUT VERSUS LIFE
- II THE BOMB VERSUS CIVILIZATION
- III THE SEARCH FOR SECURITY
- IV THE WORLD WITHIN REACH
- V SOME FACTS ABOUT NUCLEAR BOMBS



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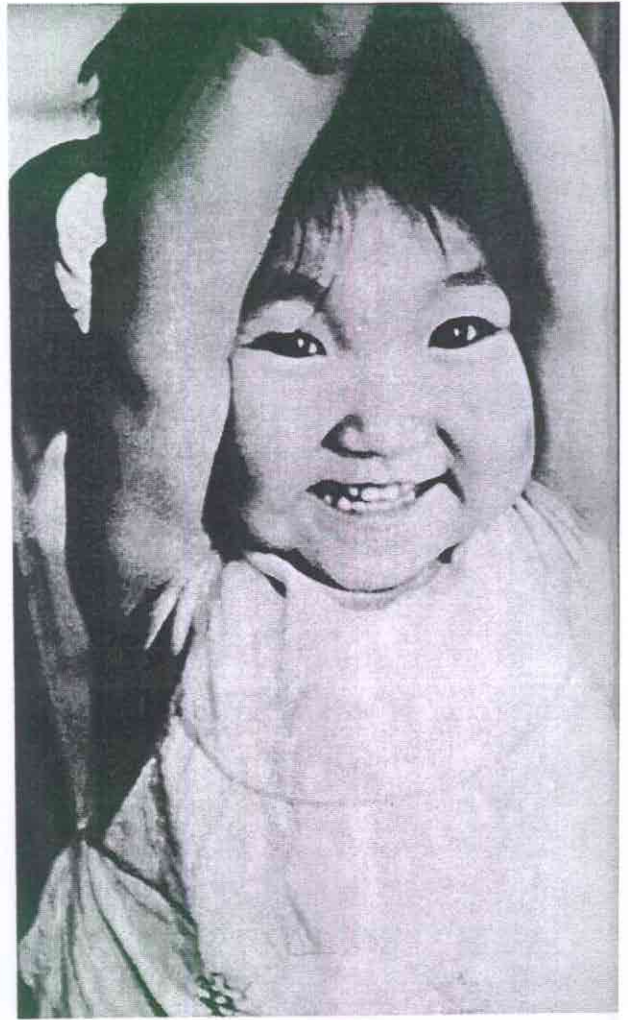
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YEARS AGO...

. . . by divine intent, by chance molecular association or by some process that is still beyond our understanding, the first cell came into being and on this lifeless planet, life began. Not a single cell alone, but a cell that became two cells, which in turn became four, and those four eight. . . .

All life today is still based on the single cell which divides itself and multiplies. Whether it be the petal of a flower or a tiger's tooth, the wing of a butterfly or the substance of our brain, the basic unit is the cell forever dividing and renewing itself.

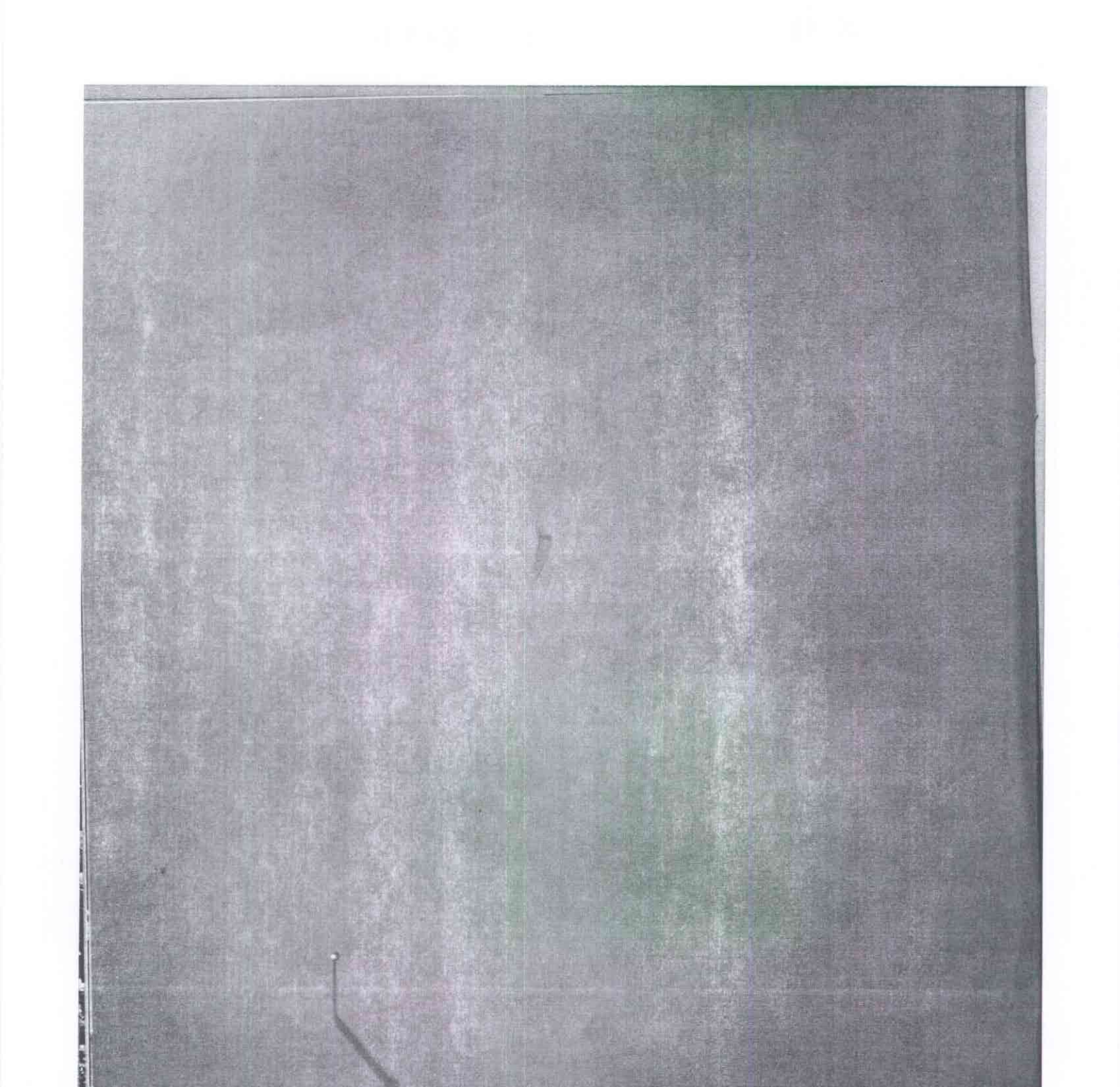
This is the unbroken thread that links us to a far distant past, this is the life process of which we humans are a part.



The nature of these children is largely determined by the genes they have inherited from their parents.



The genes they have inherited are their link with two thousand million years of evolution.



Genes are very small. If all the genes inherited by every human being living today were put together they would form a sphere no larger than the head of a pin.

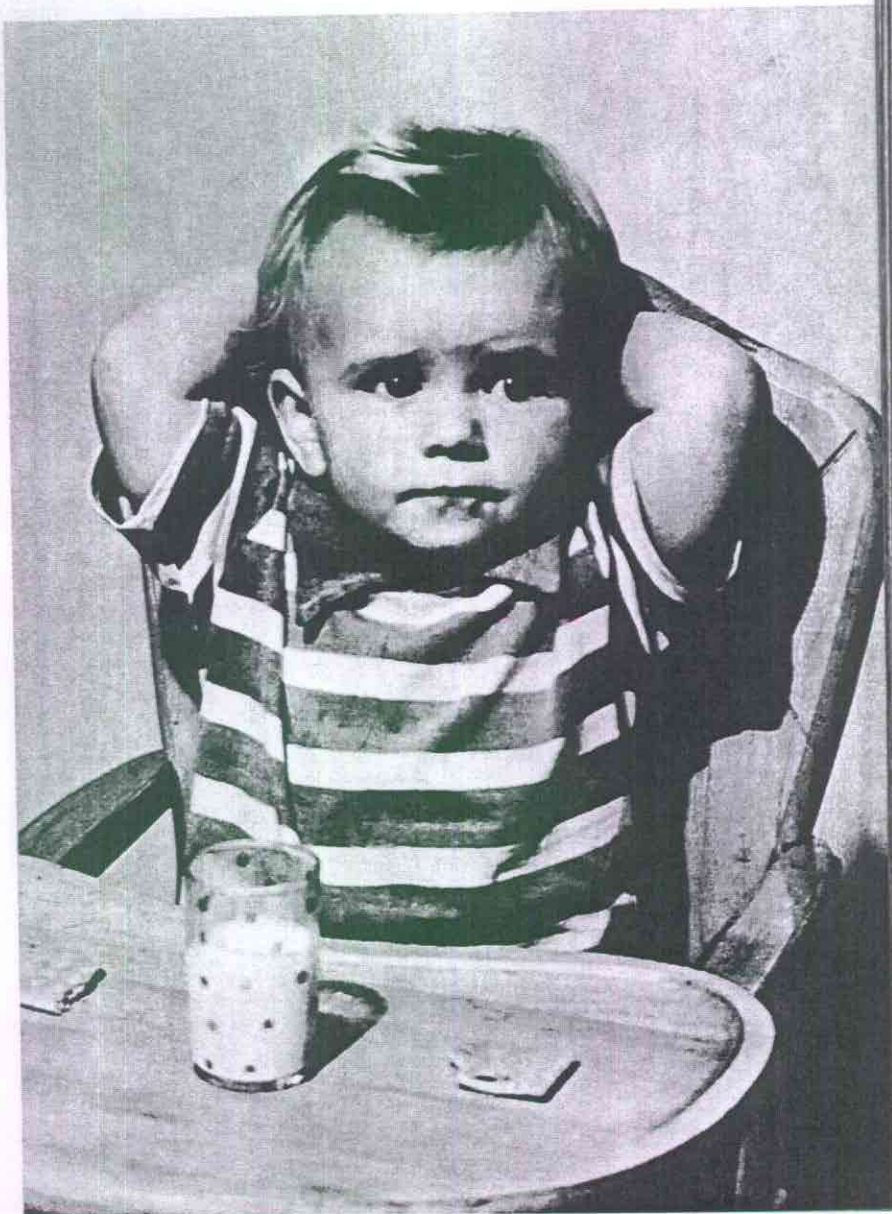
This tiny sphere represents the total pool of germ plasm that would determine the future development of the entire human race.

Genes are molecules and can be injured by radiation.

All scientists agree that every test of a nuclear weapon increases the radiation our bodies are absorbing.

Radioactive dust falls to earth and passes into our bodies when we eat vegetables or drink milk.

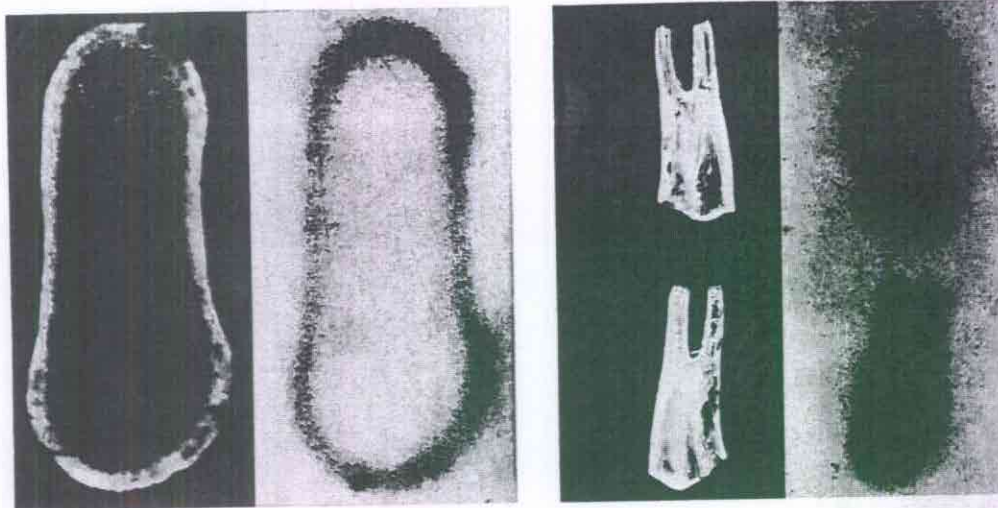
Because of the bomb tests already carried out no child anywhere in the world can drink milk that is free of poison caused by radioactive fall-out.



A dark, textured rectangular area, possibly a scan of a dark surface or a blank page with a dark background. A small white dot is visible on the right side, approximately in the middle vertically. The texture is grainy and uneven.

If this spot were radioactive

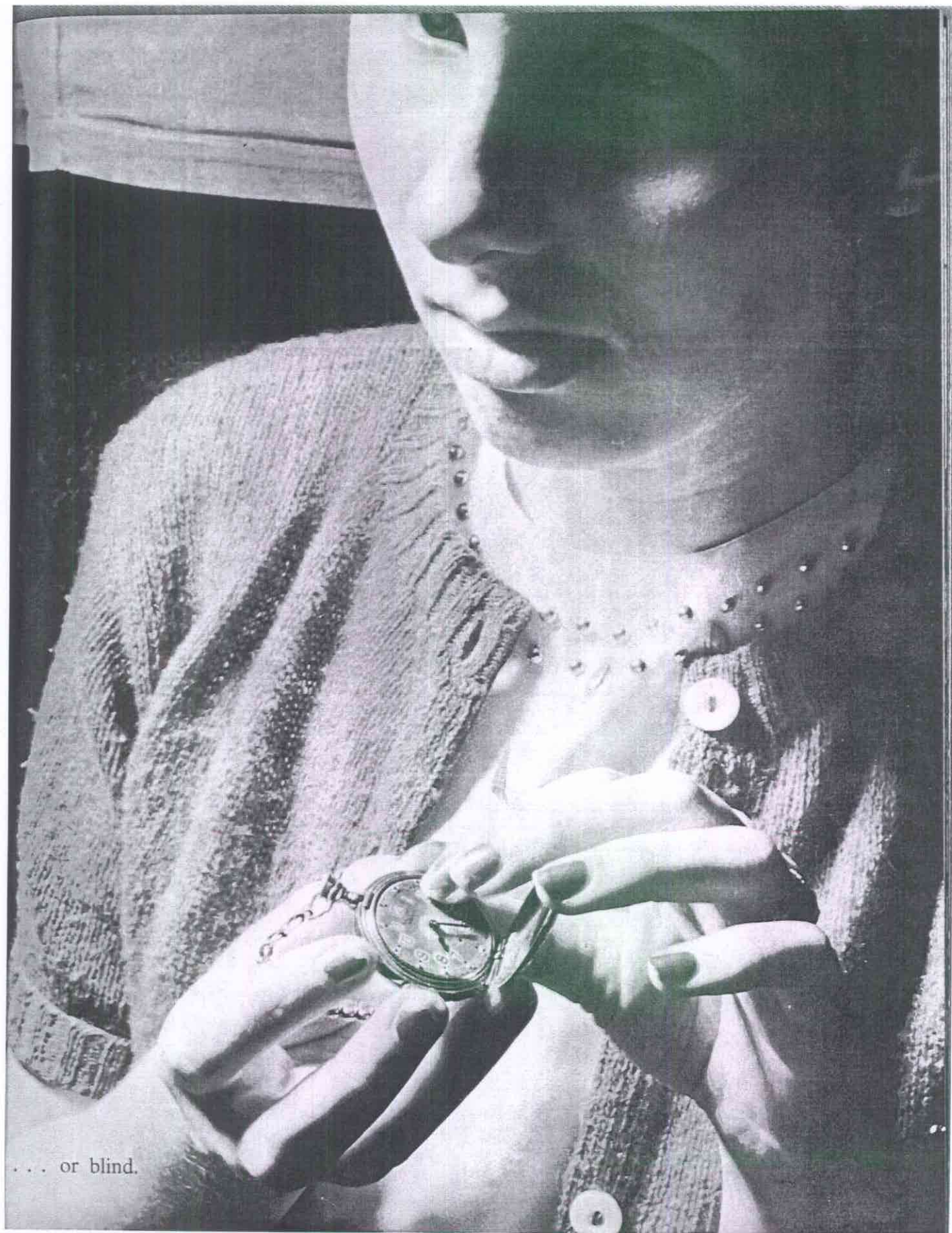
you would feel nothing . . . but the genes that you pass on to your children might be damaged.



Absorption of radioactive poison can be measured.

Scientists in Britain tested the radiation in certain animals. These photographs of a section of a deer's antlers and a sheep's tooth were made by the radiation in them — no light was used.

If some of your genes have been damaged your children may be born dead, mentally incapacitated, deformed . . .



... or blind.

WHOM SHALL WE BELIEVE

Some officials tell us that radiation dangers from fall-out are less than the dangers from a luminous watch—but the State of New York now prohibits the sale of luminous pocket watches because of the danger their radiation might cause.

The Federal Radiation Council has stated: "It is virtually certain that genetic effects can be produced by even the lowest doses." And the United Nation's Scientific Committee on the Effects of Atomic Radiation has urged that all nuclear tests should cease, to prevent genetic damage which may continue for many generations.

We do not know exactly how many people have died or are dying because of the tests already carried out.

We do not know exactly how many children not yet born will be born defective or dead because of the testing of nuclear weapons.

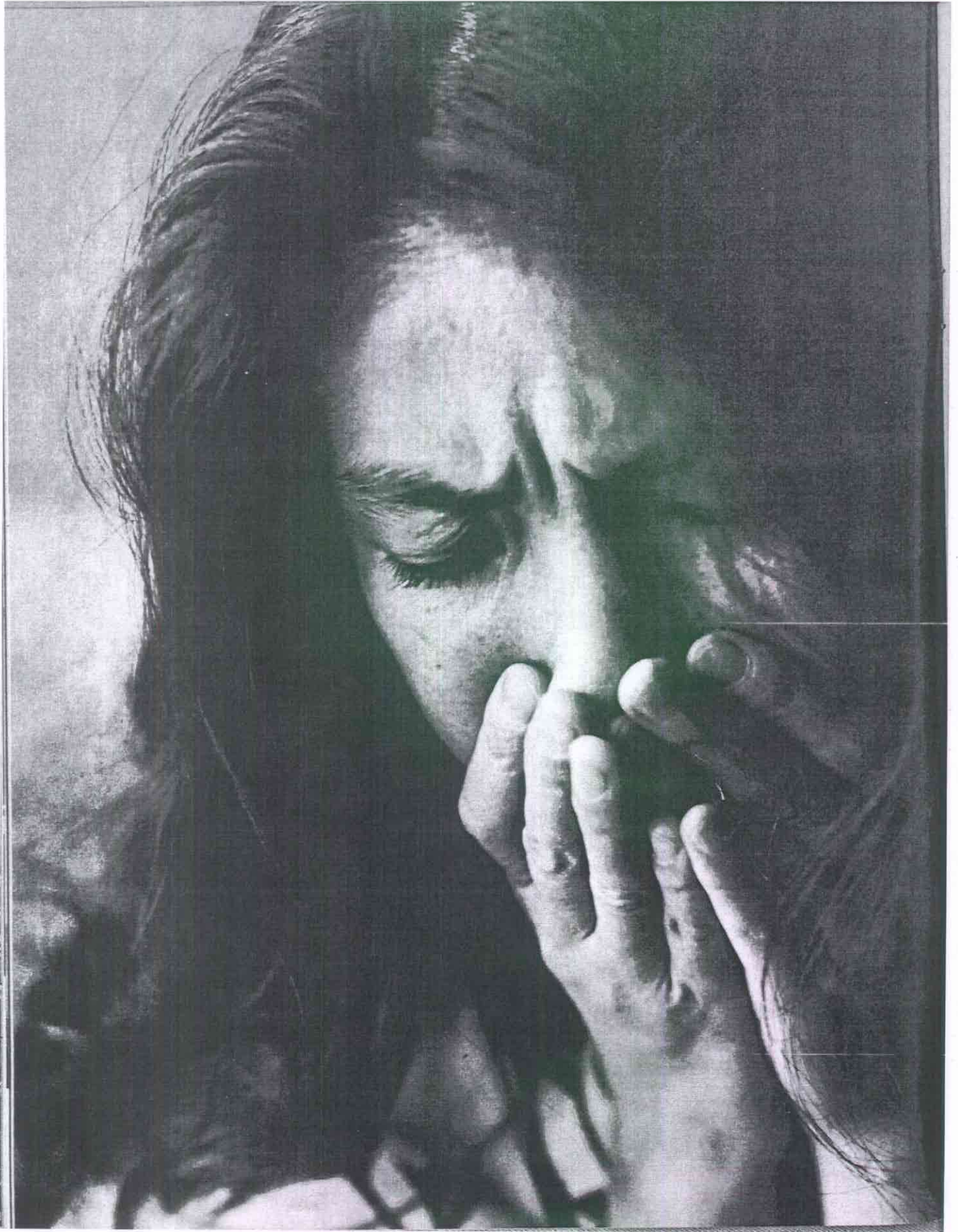
We do know that the tests already carried out will produce harmful effects for the next 10,000 years if the human race survives.

We do know that some world-famous scientists have estimated that the tests already carried out may ultimately produce one million seriously defective children.



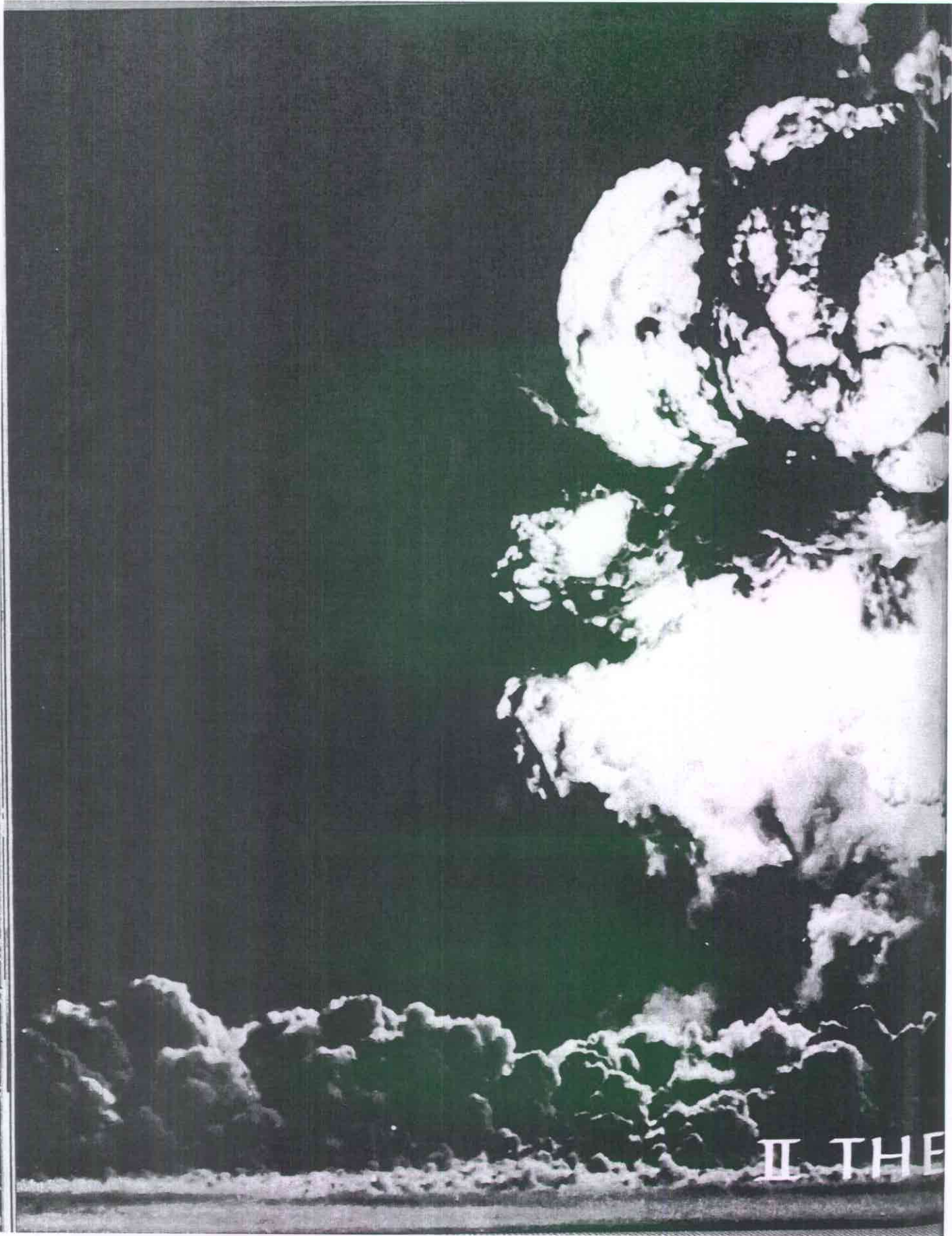
The mothers of these babies survived the bombing at Nagasaki but their babies were born deformed and dead. After autopsy their bodies were preserved to show others what may happen when genes are damaged by nuclear radiation.

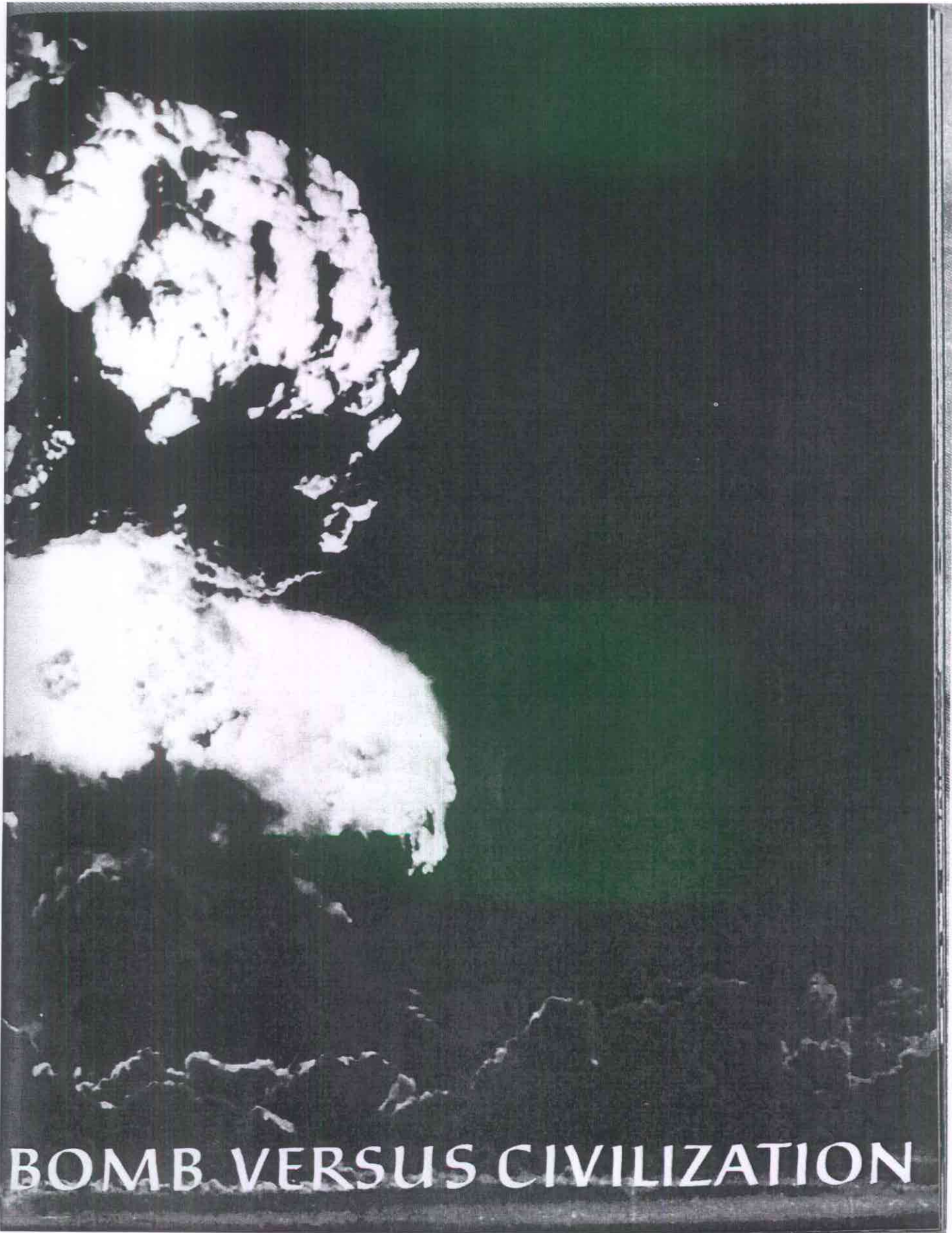




Only those who have never been present at the birth of a deformed baby, never witnessed the whimpering shock of its mother, dare to say that nuclear tests should be continued.

DR ALBERT SCHWEITZER





BOMB VERSUS CIVILIZATION



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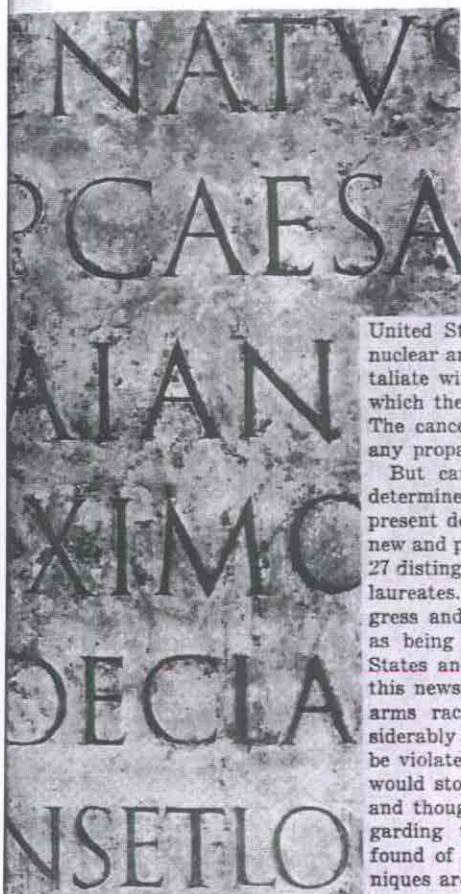
Vertical strip of hieroglyphs.

事
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Fragment of a text with various characters, including 'WAKHIA MO', 'VEAT FEI E', 'DUN WIA NA', 'ATSKAKAT', 'WE WANA', 'ESEI OPEN', 'ANOPONAD', 'DANONCAP', 'MAMENOE', 'P'WATAA', 'AN CANA W'.

Fragment of a text with characters 'A', 'D', 'O'.

All that we are, all that our civilization has accomplished, has arisen from the past.

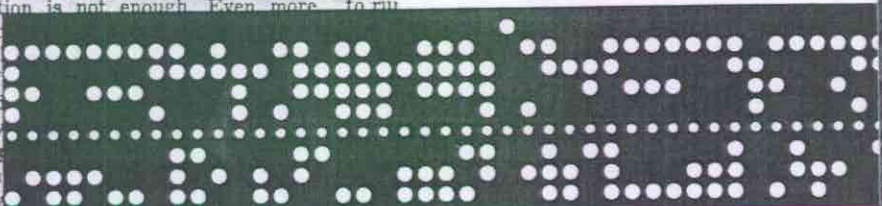


United States of starting a new round in the nuclear arms race. The Soviets threatened to retaliate with a massive test series of their own, which they are suspected of already preparing. The cancellation of our tests deprives them of any propagandistic pretext for resuming theirs. But cancellation is not enough. Even more determined effort is needed to break the present deadlock. We have a new and powerful generation of 27 distinguished laureates. They represent the progress and the future of our States and of the world.

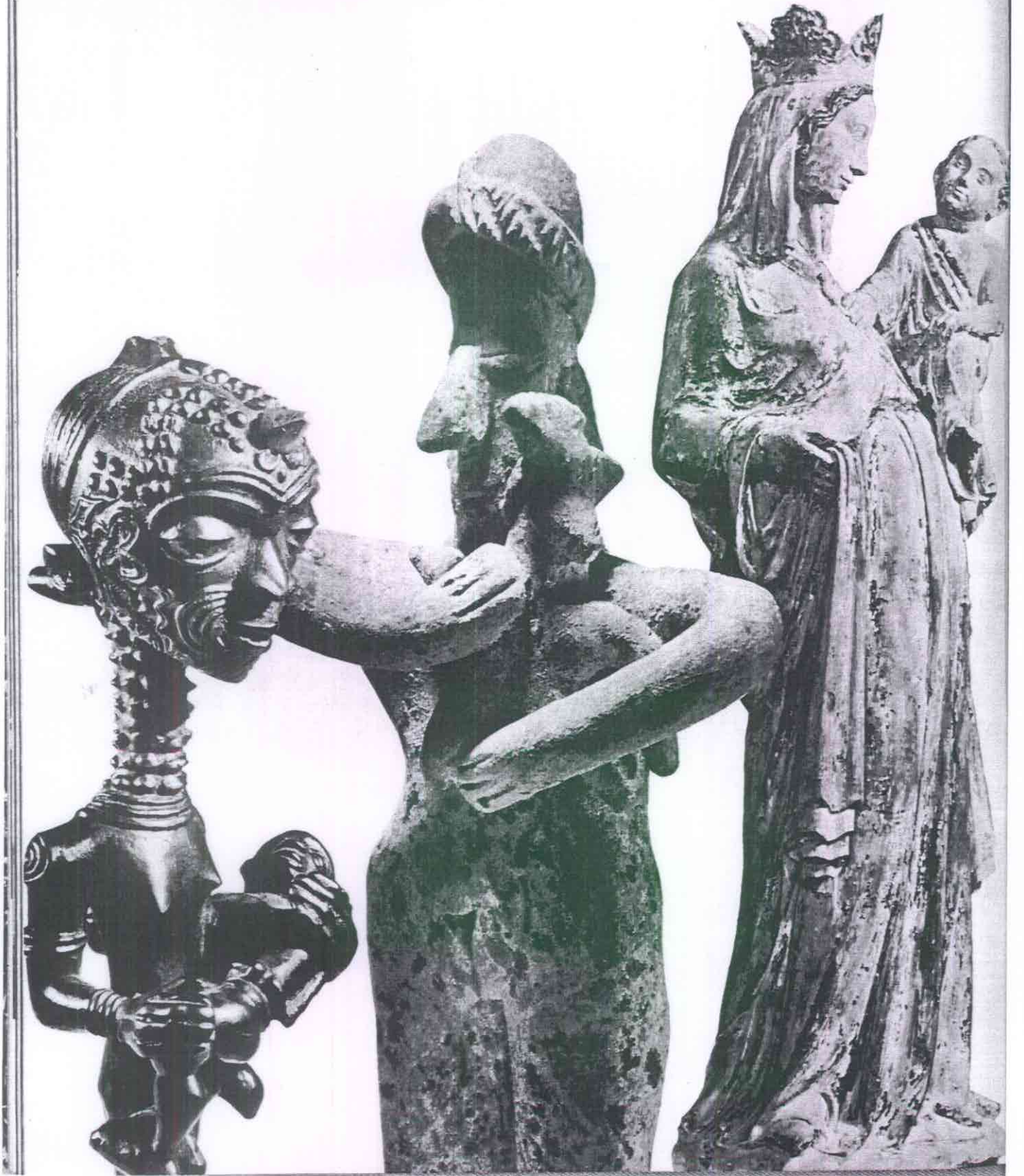
...this newspaper, that the risk of continuing the arms race without a test-ban treaty is considerably greater than the risk that a ban might be violated by secret testing. For such a treaty would stop immediately all above-ground tests; and though some uncertainty might remain regarding underground tests, these have been found of lesser military value. Detection techniques are already such as to make it too risky for the Soviets to cheat. The treaty might not last, but as long as it lasts, it would leave our nuclear deterrent capacity intact, reduce the speed of the armament race, help to inhibit the spread of nuclear arms, reduce the likelihood

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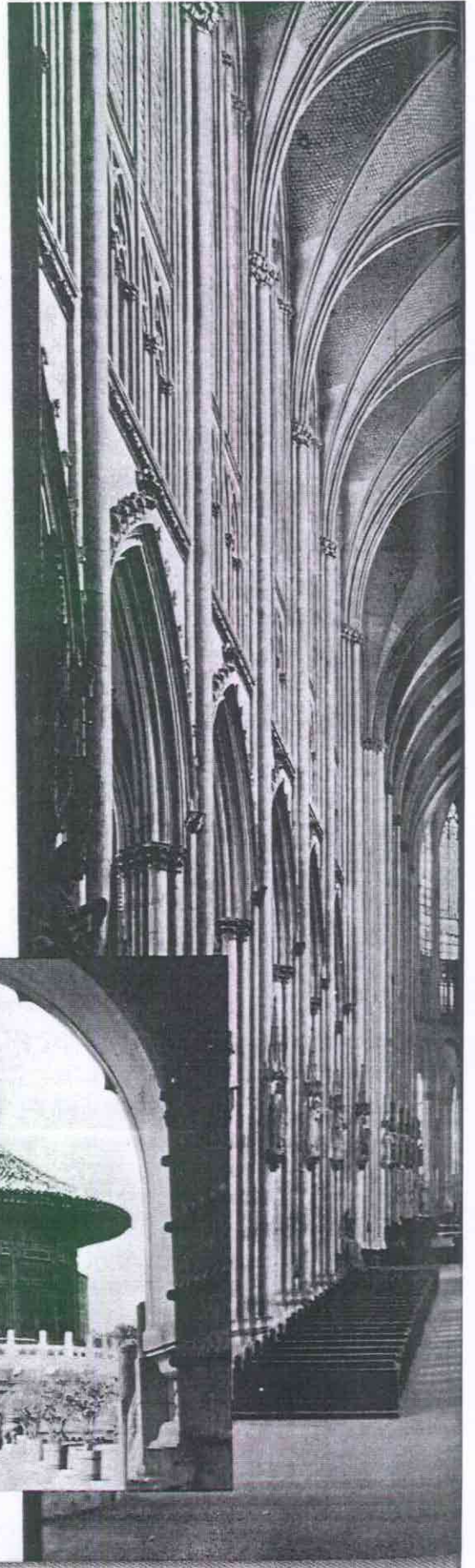
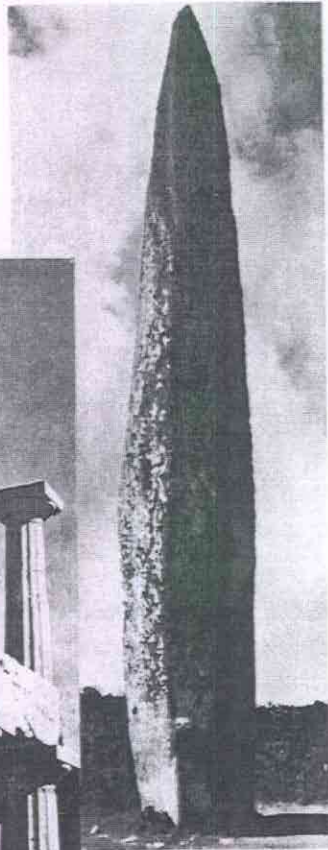
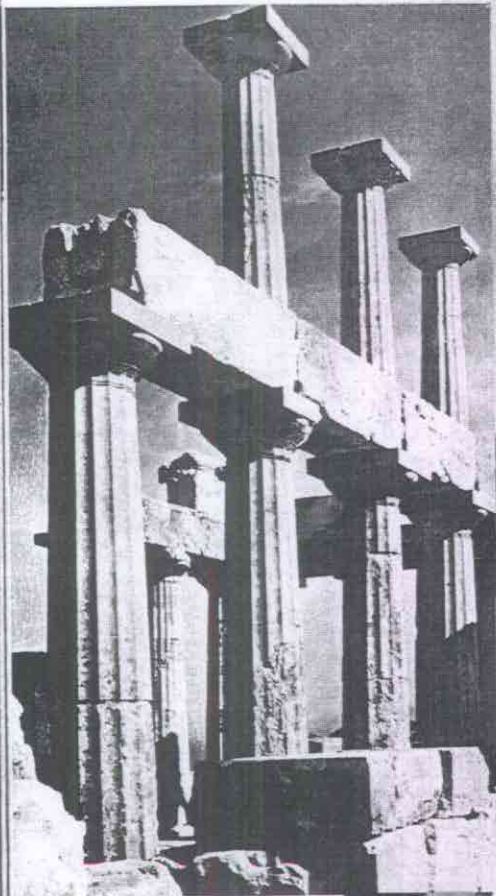


Whoever we are, wherever we live, we are part of an historical process . . .

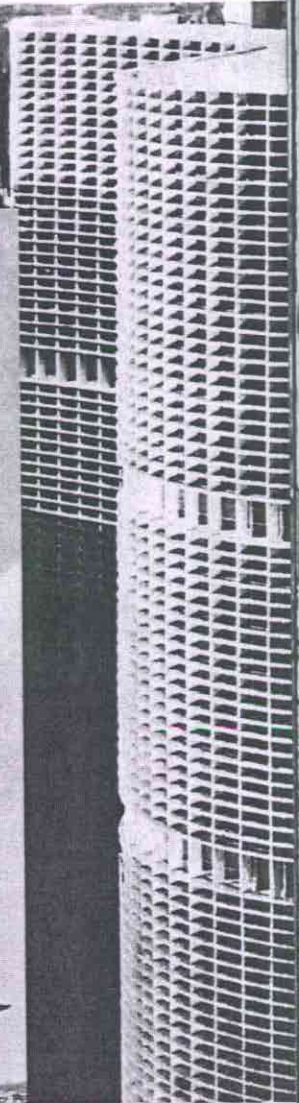
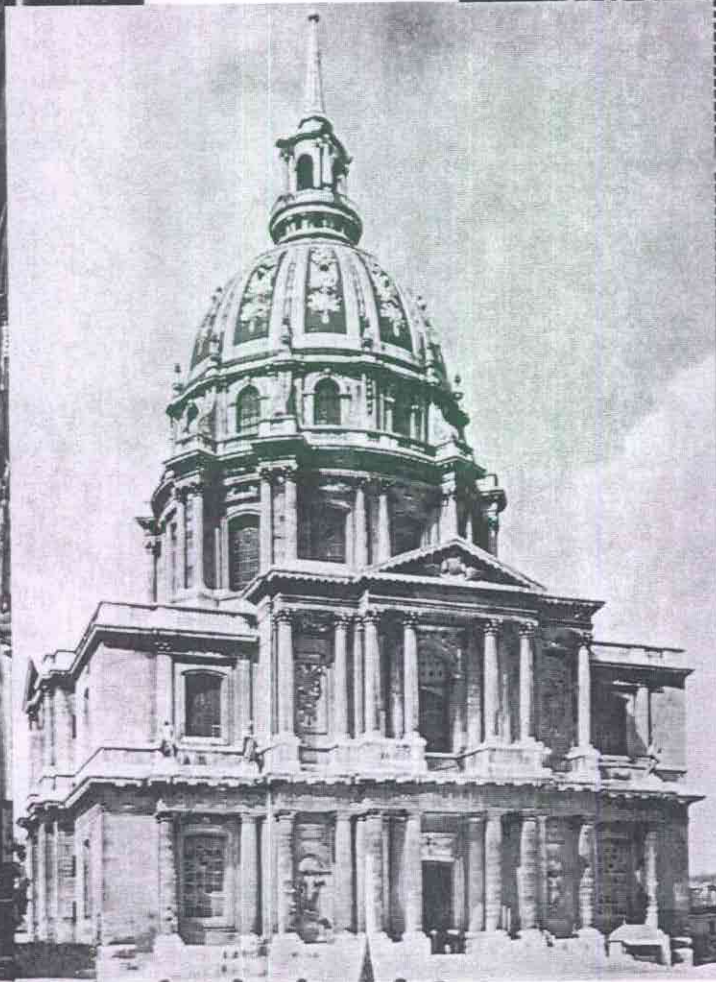
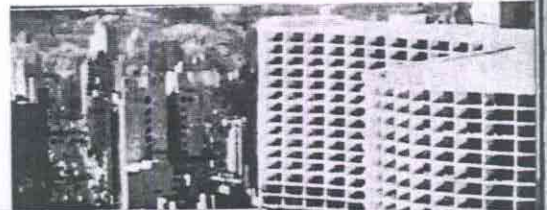
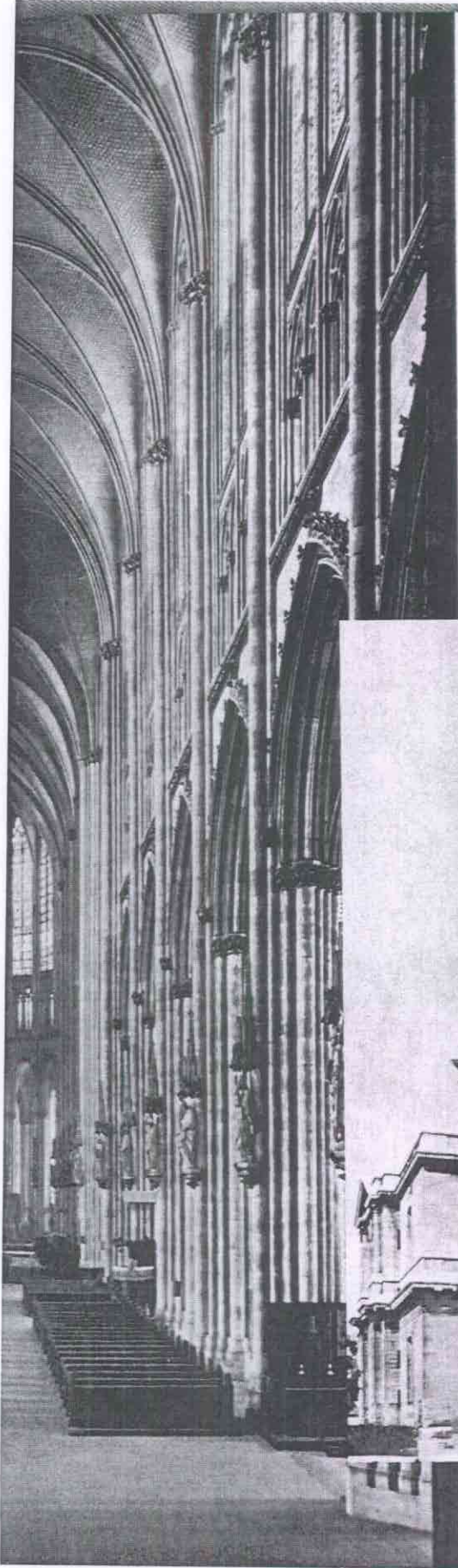


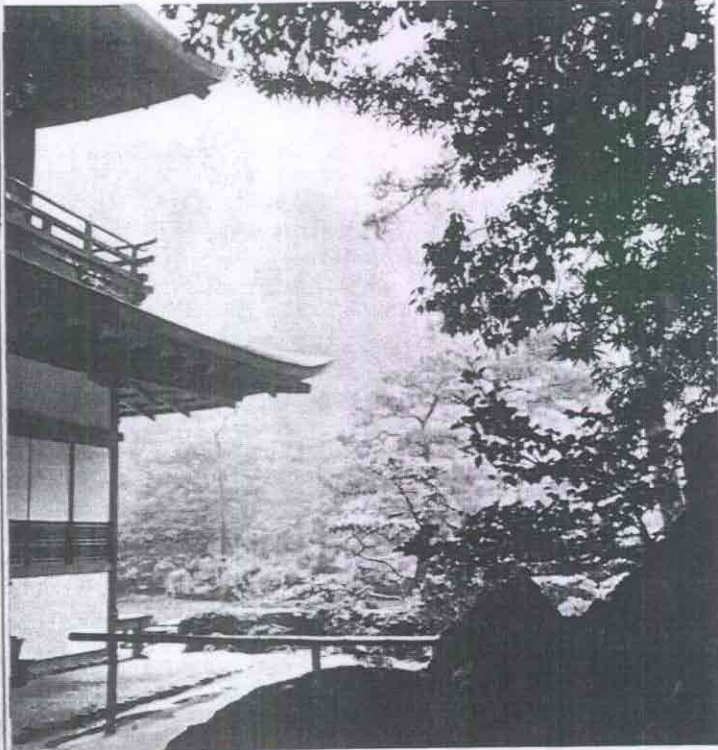
that far out-spans our own generation.





For the first time in history we who live today
have the power to bring all civilization to an end.

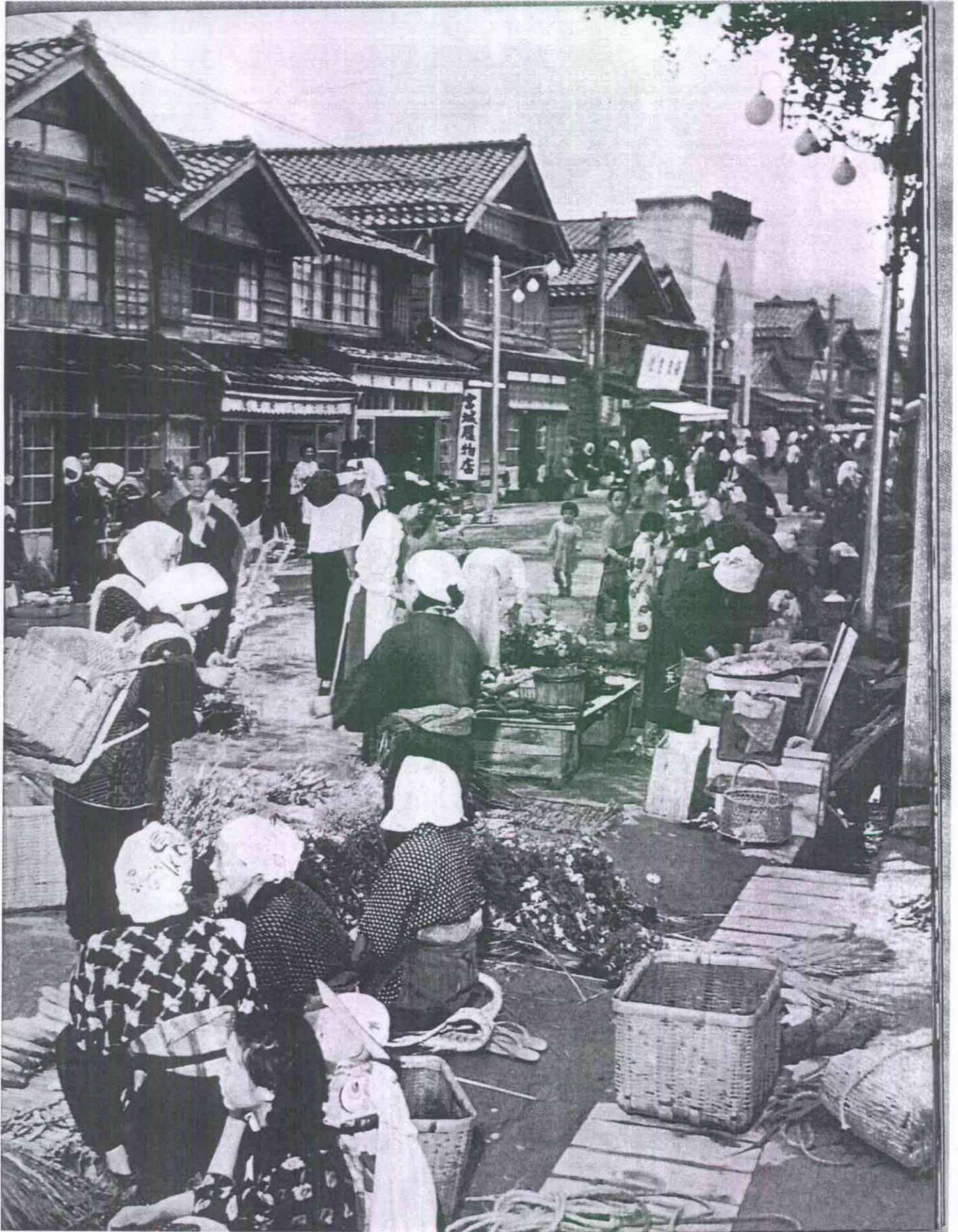




JAPAN 1945...

In Hiroshima, on Monday morning the sixth of August, after the markets were open and when people were on their way to work, a single atom bomb was dropped from a high altitude. The bomb measured only 28 inches by 120 inches, and it floated slowly down attached to a parachute.

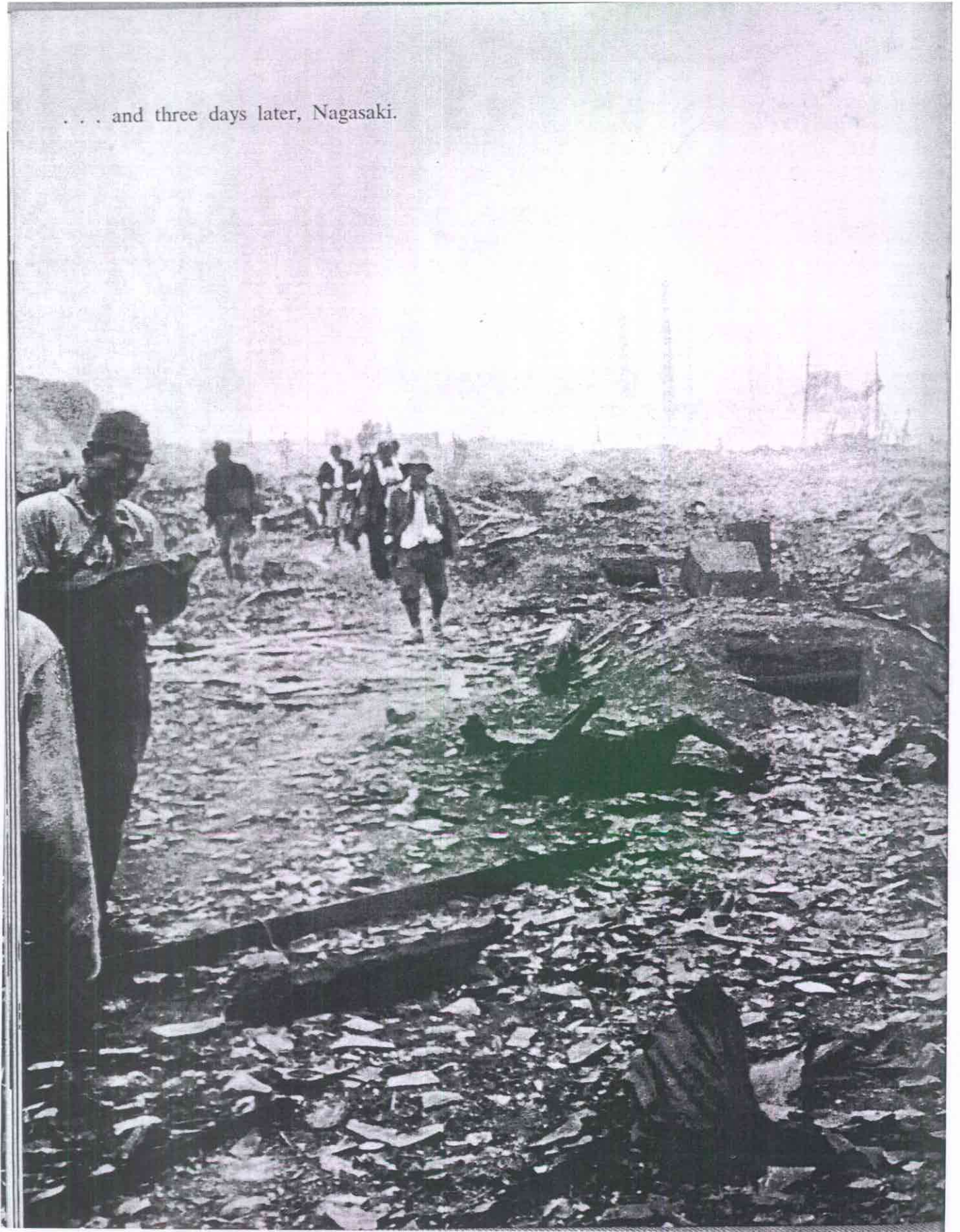
At 2,200 feet it exploded.

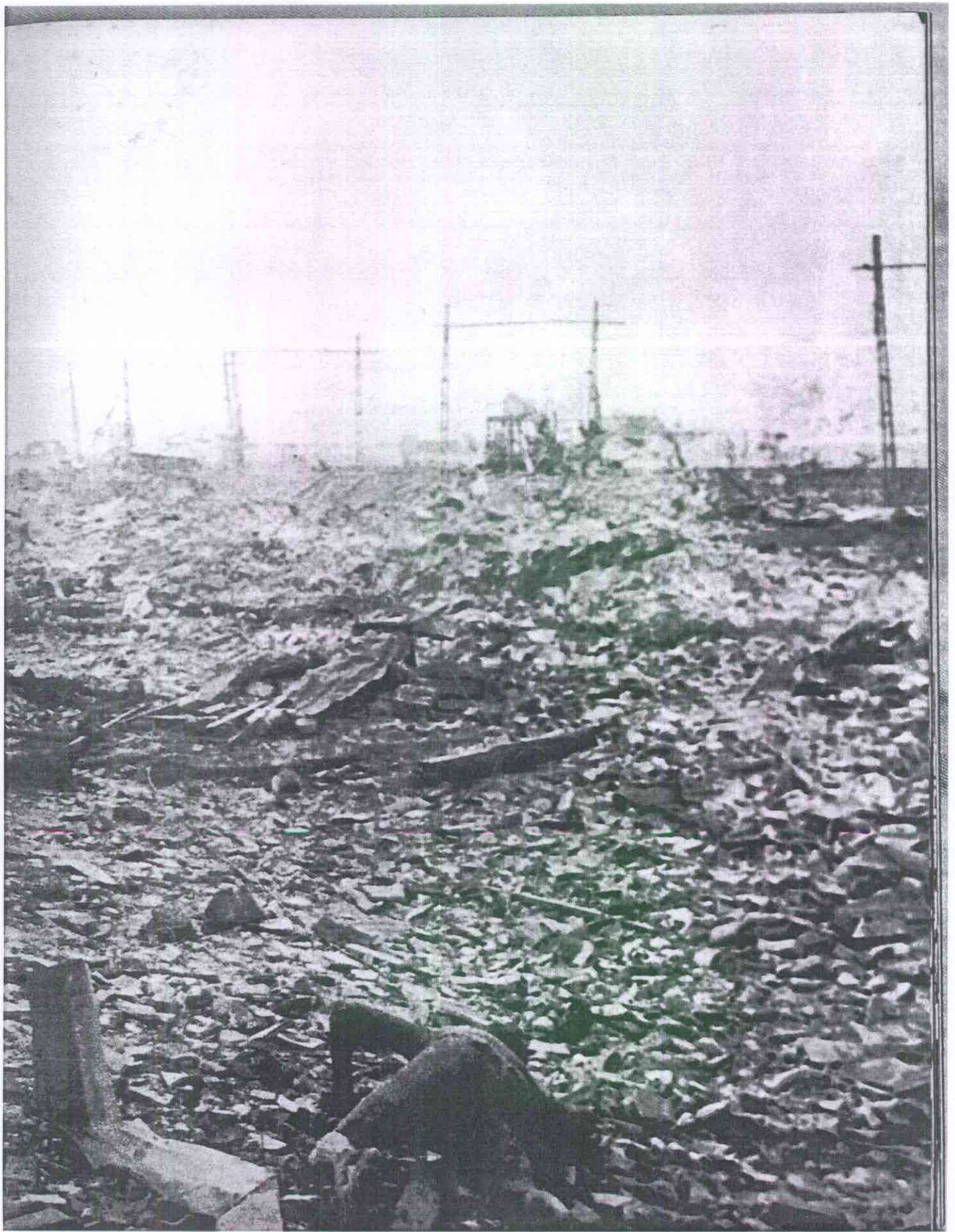






. . . and three days later, Nagasaki.

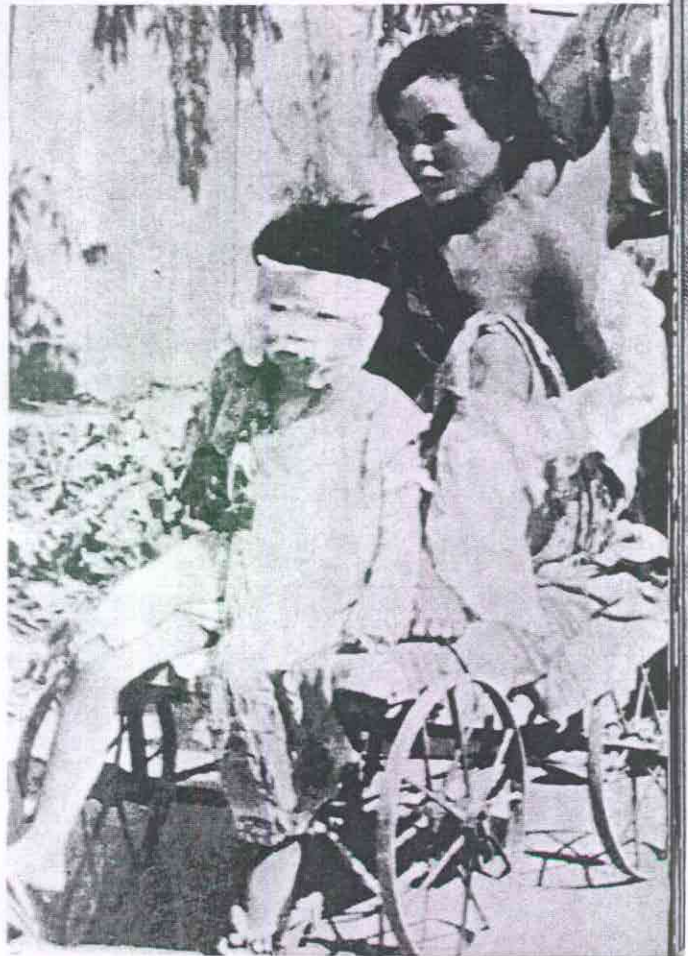








Some survived . . .





Some survived to die later.





THE MANHATTAN PROJECT ATOMIC BOMB INVESTIGATING GROUP

THE ATTACKS

Hiroshima

Hiroshima was the primary target of the first atomic bomb mission. The mission went smoothly in every respect. The weather was good, and the crew and equipment functioned perfectly. In every detail, the attack was carried out exactly as planned, and the bomb performed exactly as expected.

The bomb exploded over Hiroshima at 8:15 on the morning of August 6, 1945. About an hour previously, the Japanese early warning radar net had detected the approach of some American aircraft headed for the southern part of Japan. The alert had been given and radio broadcasting stopped in many cities, among them Hiroshima. The planes approached the coast at a very high altitude. At nearly 8:00 A.M., the radar operator in Hiroshima determined that the number of planes coming in was very small - probably not more than three - and the air raid alert was lifted. The normal radio broadcast warning was given to the people that it might be advisable to go to shelter if B-29's were actually sighted, but no raid was expected beyond some sort of reconnaissance. At 8:15 A.M., the bomb exploded with a blinding flash in the sky, and a great rush of air and a loud rumble of noise extended for many miles around the city; the first blast was soon followed by the sounds of falling buildings and of growing fires, and a great cloud of dust and smoke began to cast a pall of darkness over the city.

...ed concrete ... of explosion were almost 100%. In Hiroshima fires sprang up simultaneously all over the wide flat central area of the city; these fires soon combined in an immense "fire storm" (high winds blowing inwards toward the center of a large conflagration) similar to those caused by ordinary mass incendiary raids; the resulting terrific conflagration burned out almost everything which had not already been destroyed by the blast in a roughly circular area of 4.4 square miles around the point directly under the explosion (this point will hereafter in this report be referred to as X). Similar fires broke out in Nagasaki, but no devastating fire storm resulted as in Hiroshima because of the irregular shape of the city.

... were instantly and completely devastated. 66,000 people were killed, and 69,000 injured.

On August 9th, three days later, at 11:02 A.M., another B-29 dropped the second bomb on the industrial section of the city of Nagasaki, totally destroying $1\frac{1}{2}$ square miles of the city, killing 39,000 persons, and injuring 25,000 more.

On August 10, the day after the atomic bombing of Nagasaki, the Japanese government announced that it permitted the return of the atomic bomb under the terms of the July 26th Potsdam Declaration.



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...ed concit... of ex-
burned or blown away; the casualties in such buildings near the center of explosion were almost 100%. In Hiroshima fires sprang up simultaneously all over the wide flat central area of the city; these fires soon combined in an immense "fire storm" (high winds blowing inwards toward the center of a large conflagration) similar to those caused by ordinary mass incendiary raids; the resulting terrific conflagration burned out almost everything which had not already been destroyed by the blast in a roughly circular area of 4.4 square miles around the point directly under the explosion (this point will hereafter in this report be referred to as X). Similar fires broke out in Nagasaki, but no devastating fire storm resulted as in Hiroshima because of the irregular shape of the city.

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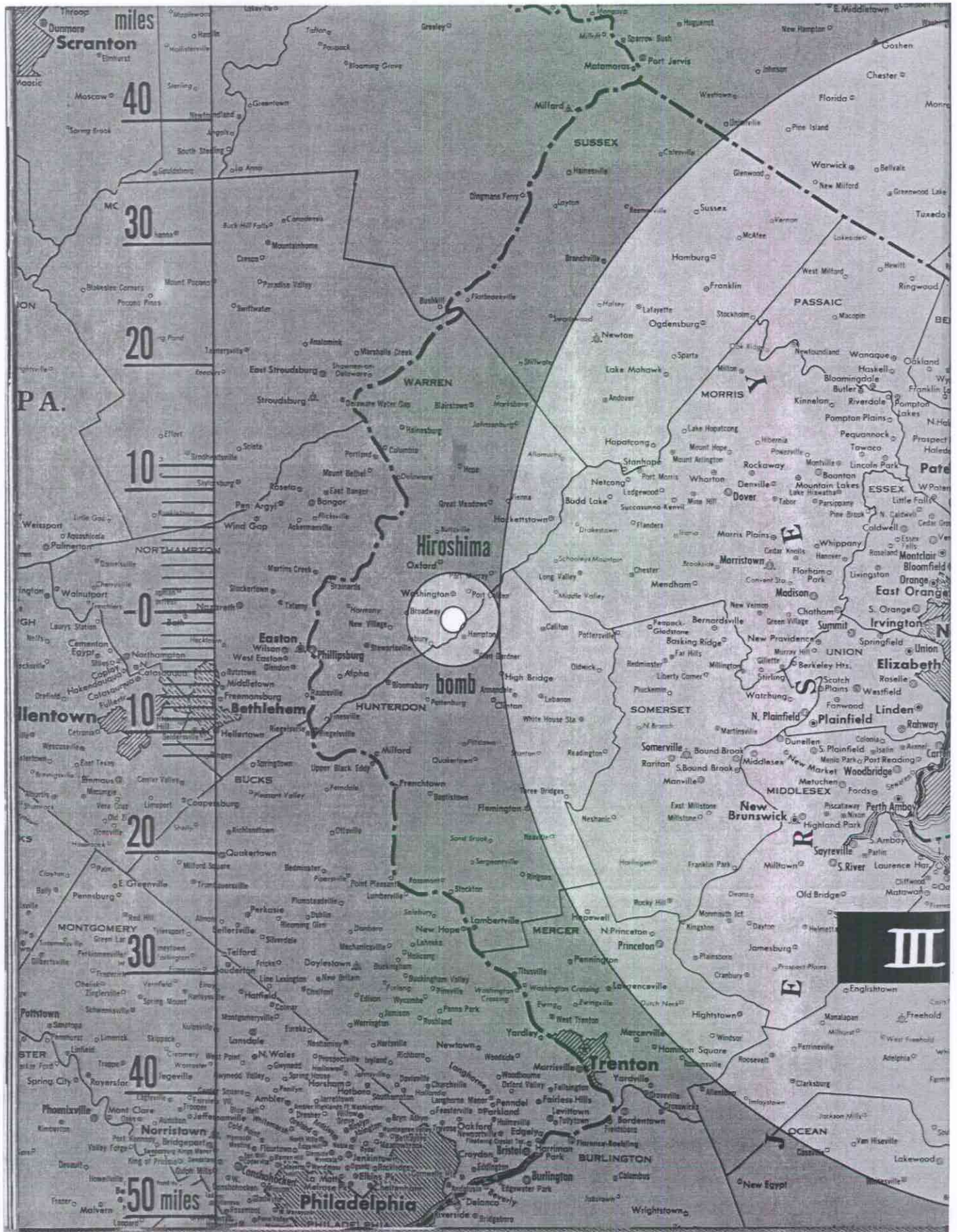
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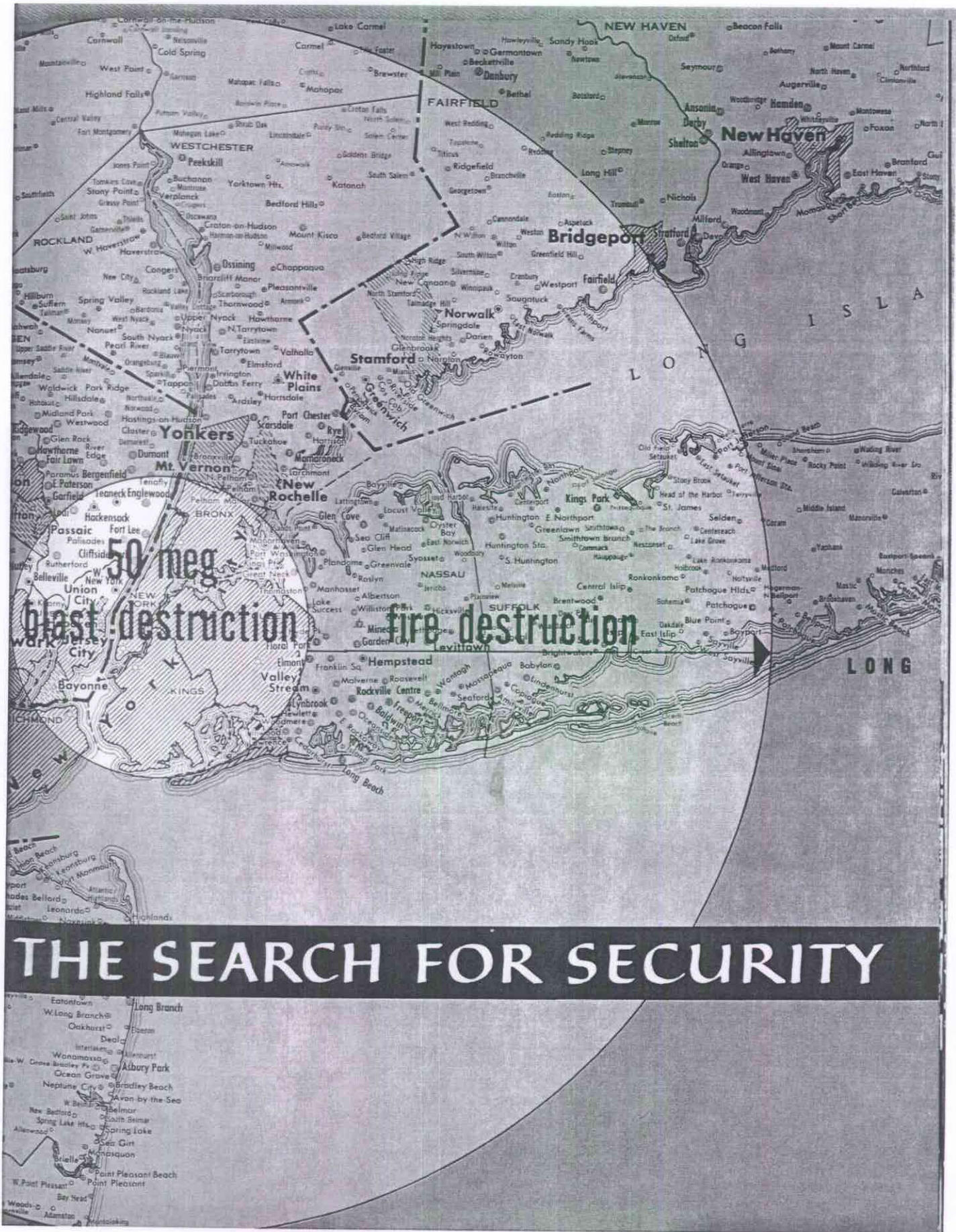


Humanity is outraged in me and with me. We must not dissimulate nor try to forget this indignation which is one of the most passionate forms of love.

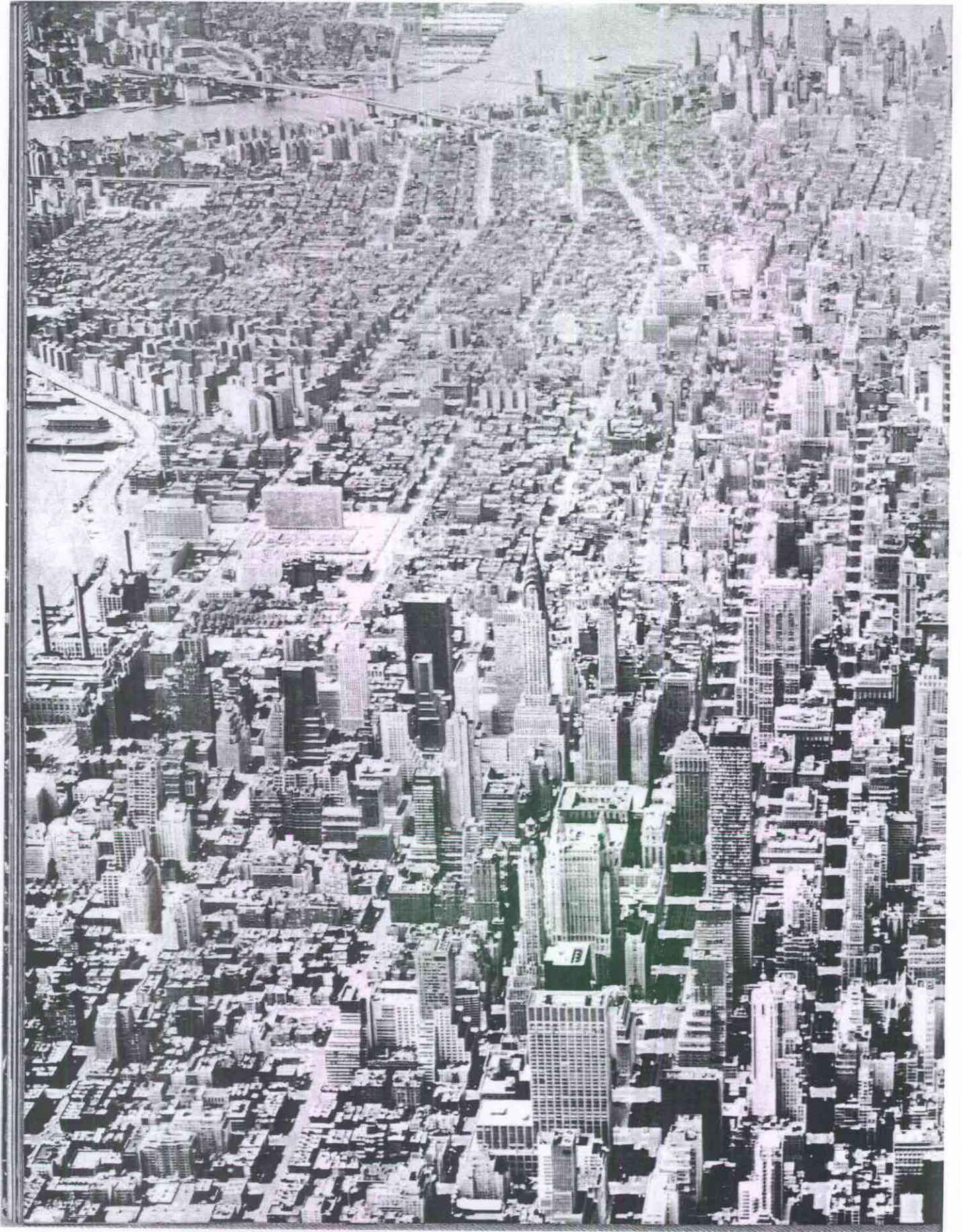
GEORGE SAND

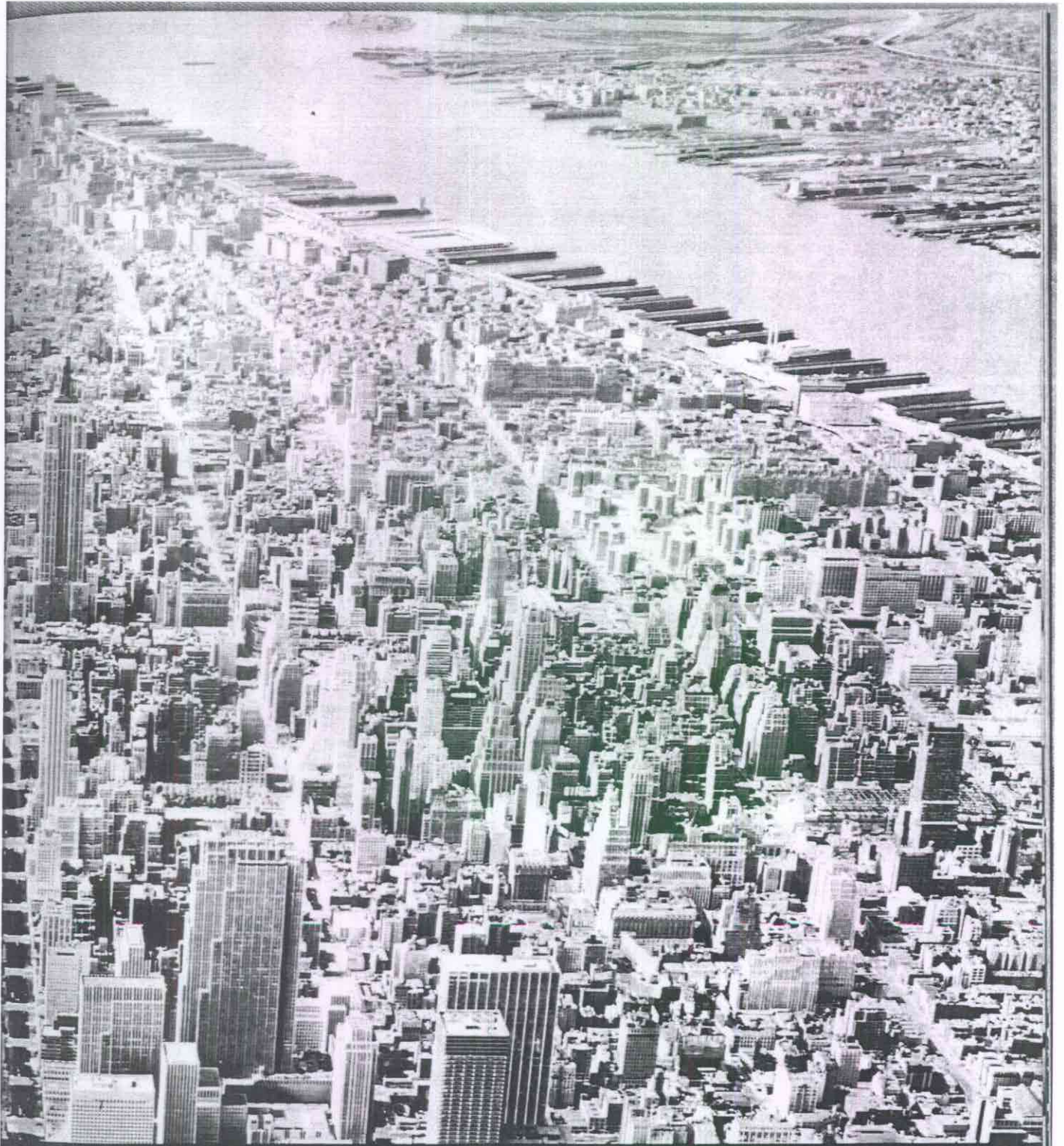


III



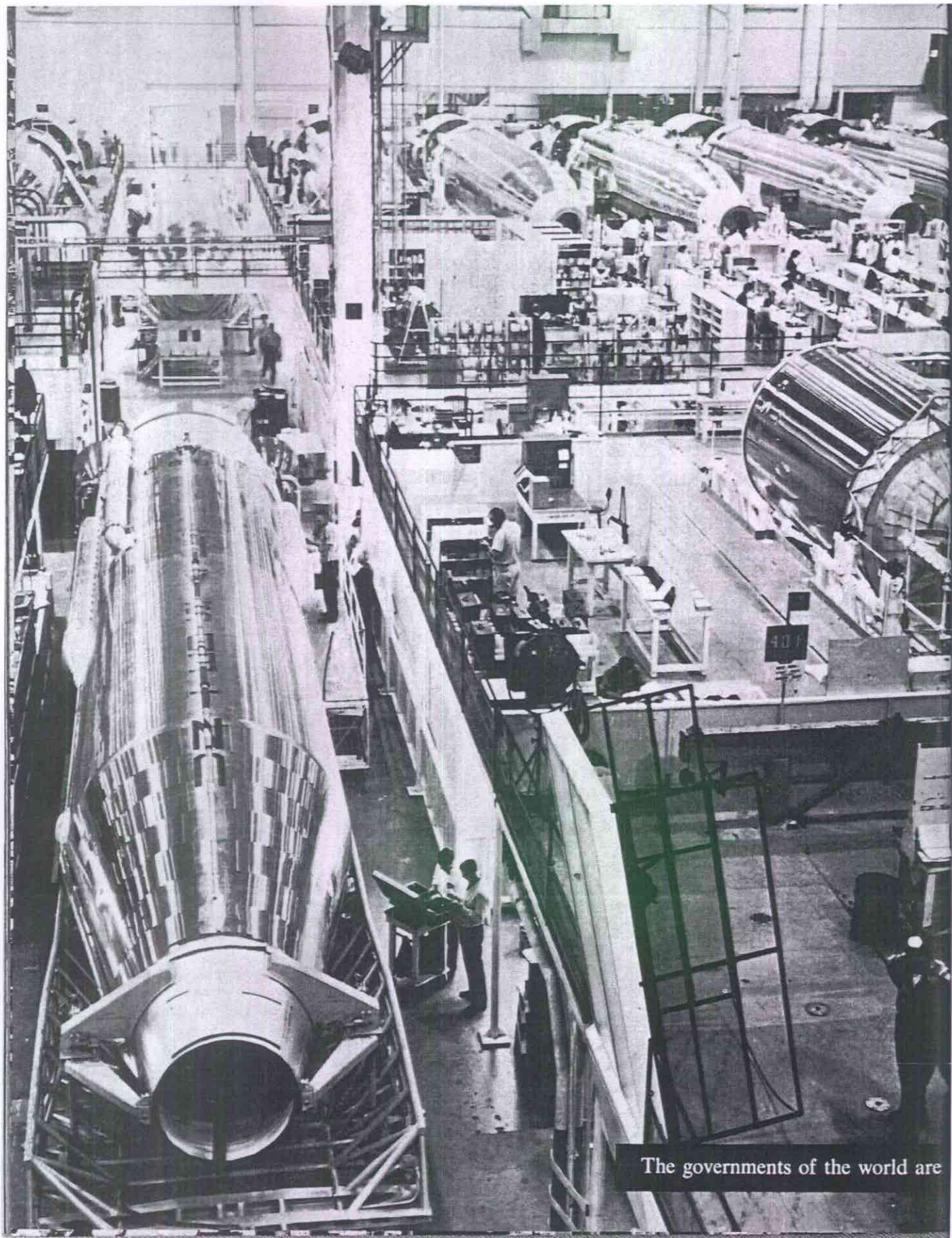
THE SEARCH FOR SECURITY



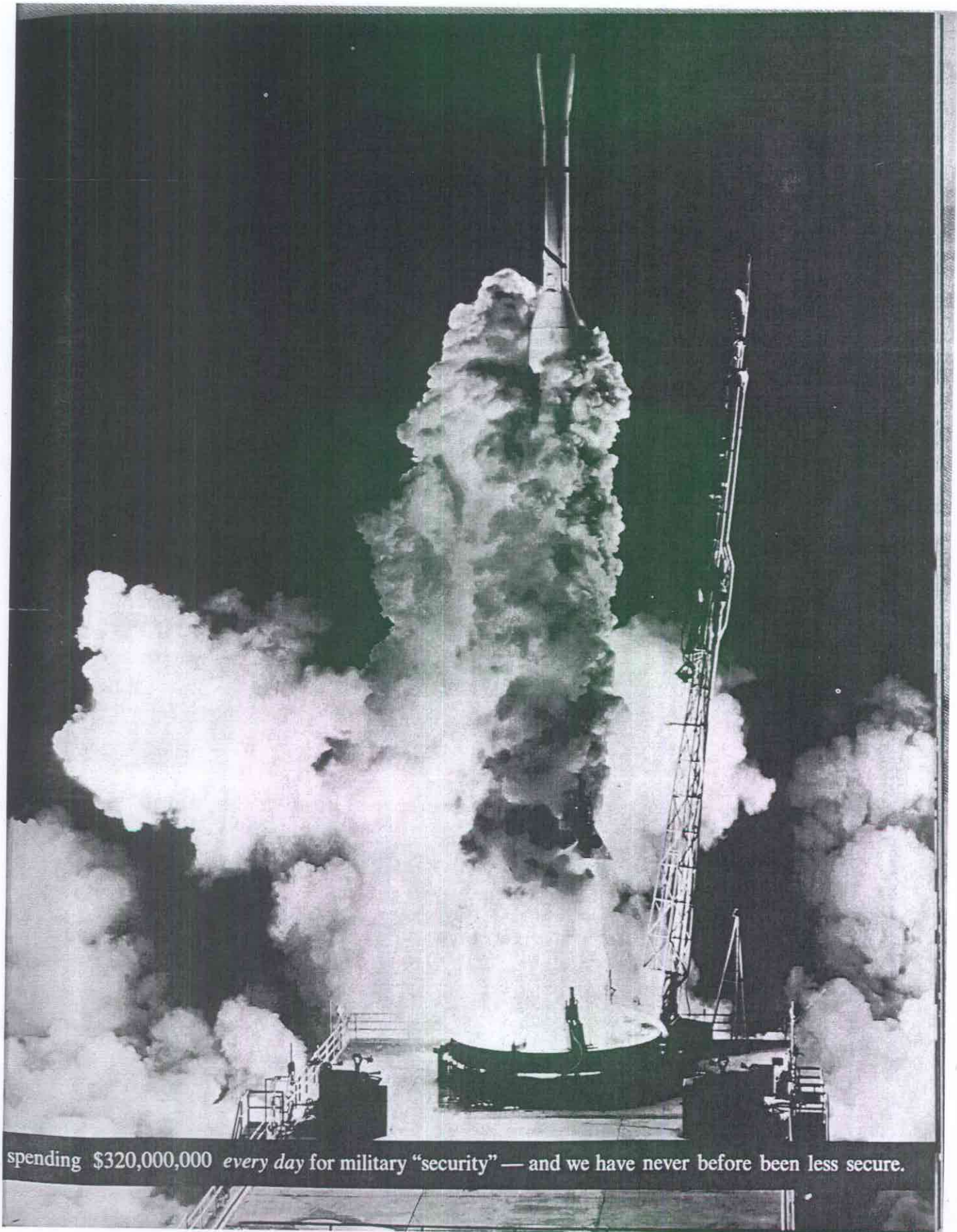


Today's bombs are 2,500 times more powerful than the bomb which was dropped on Hiroshima. A single H-bomb on New York could kill most people in the city by blast, fire and radiation. Nearly everyone within fifty miles would probably be killed by local fall-out.



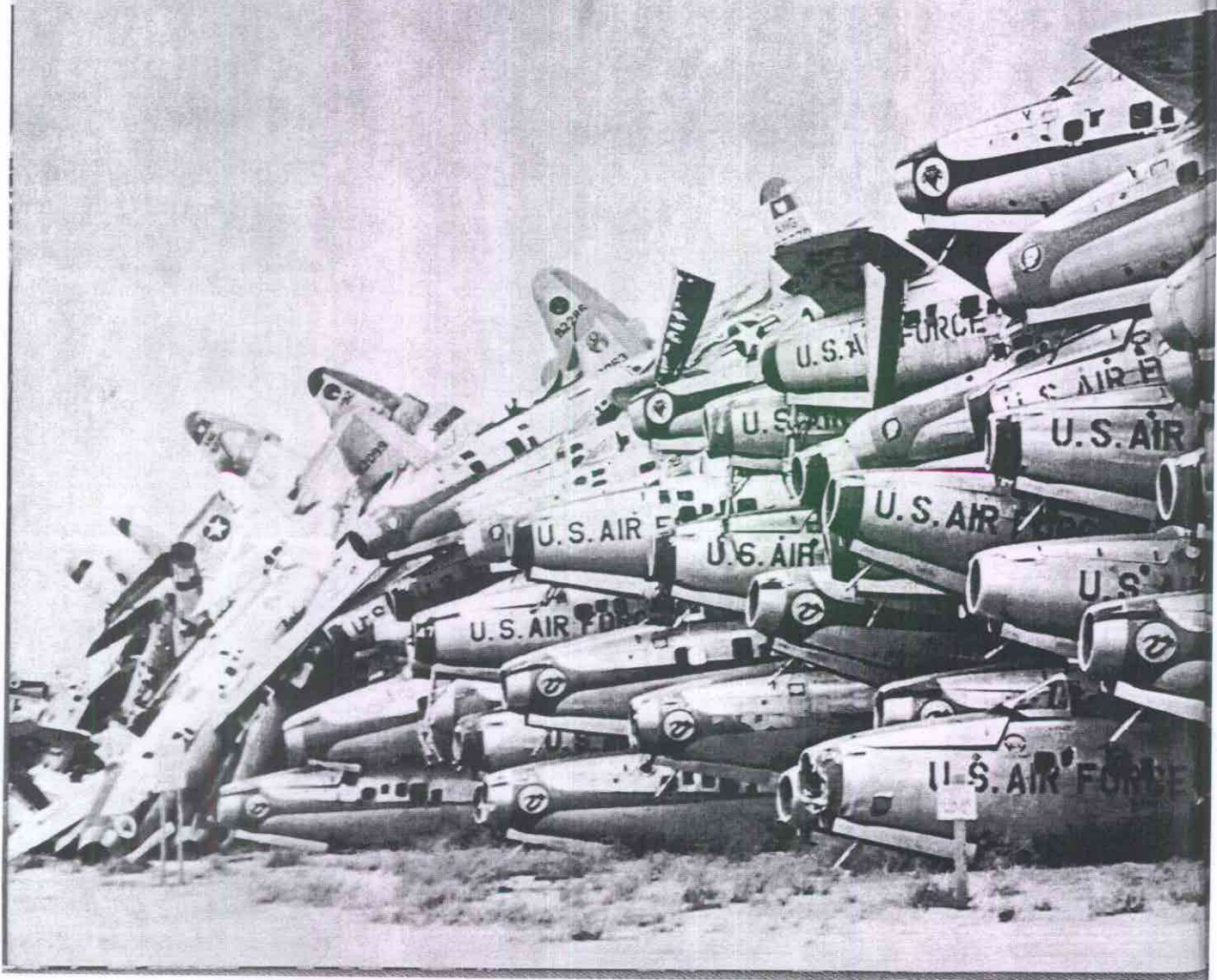


The governments of the world are



spending \$320,000,000 *every day* for military "security" — and we have never before been less secure.

We pay for a single fighter plane with half a million bushels of wheat. . . . Is there no other way



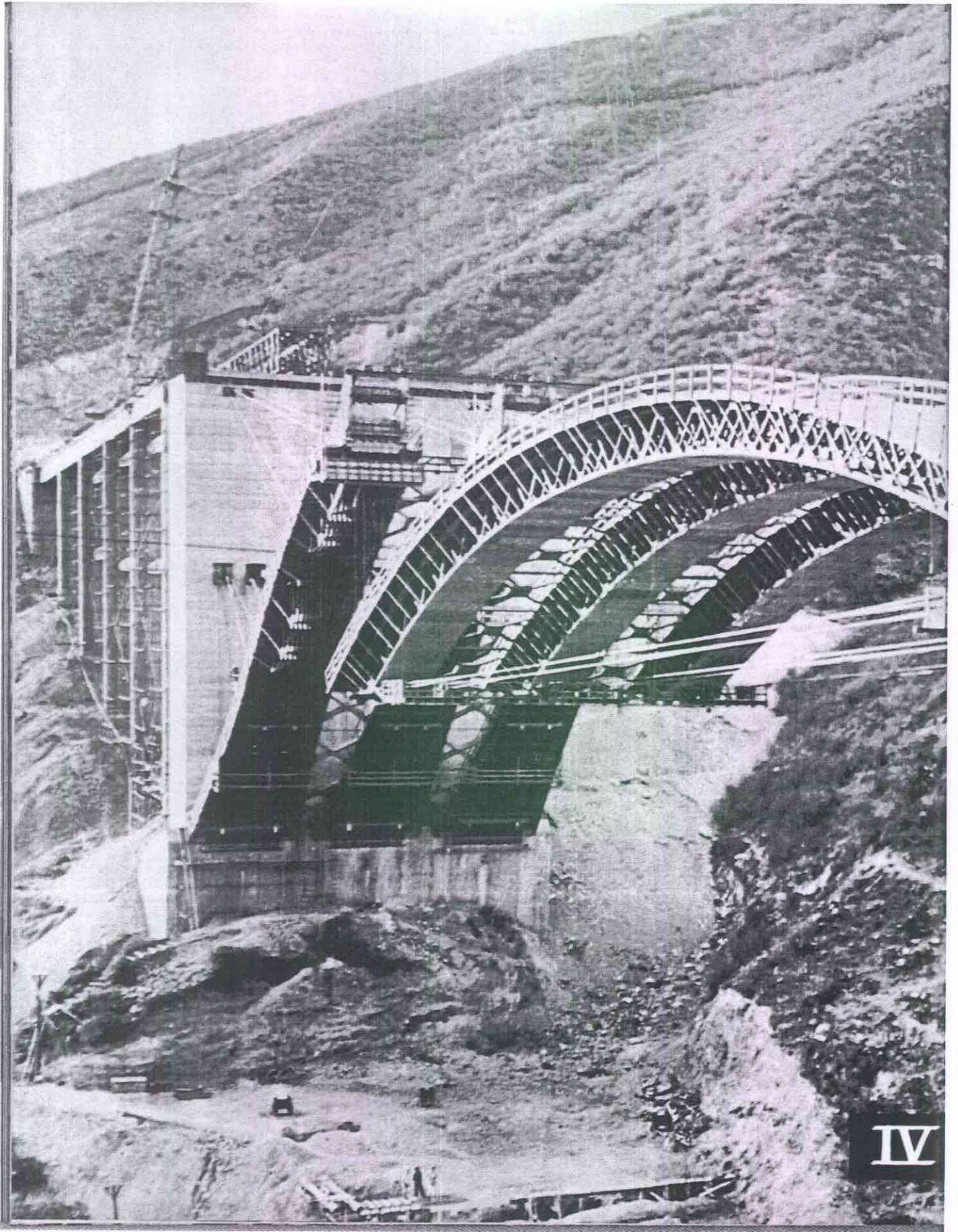
this world can live?

DWIGHT D. EISENHOWER

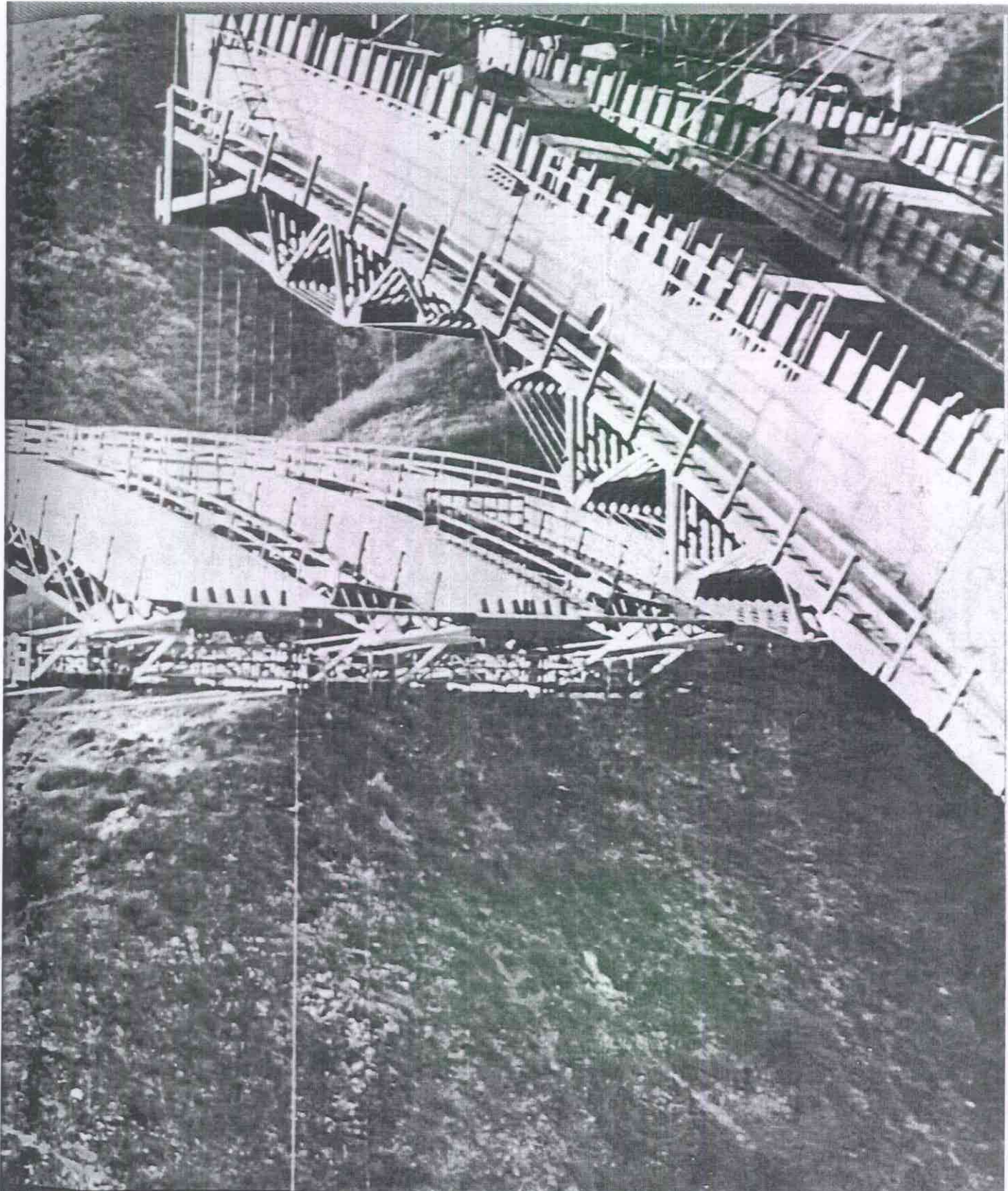




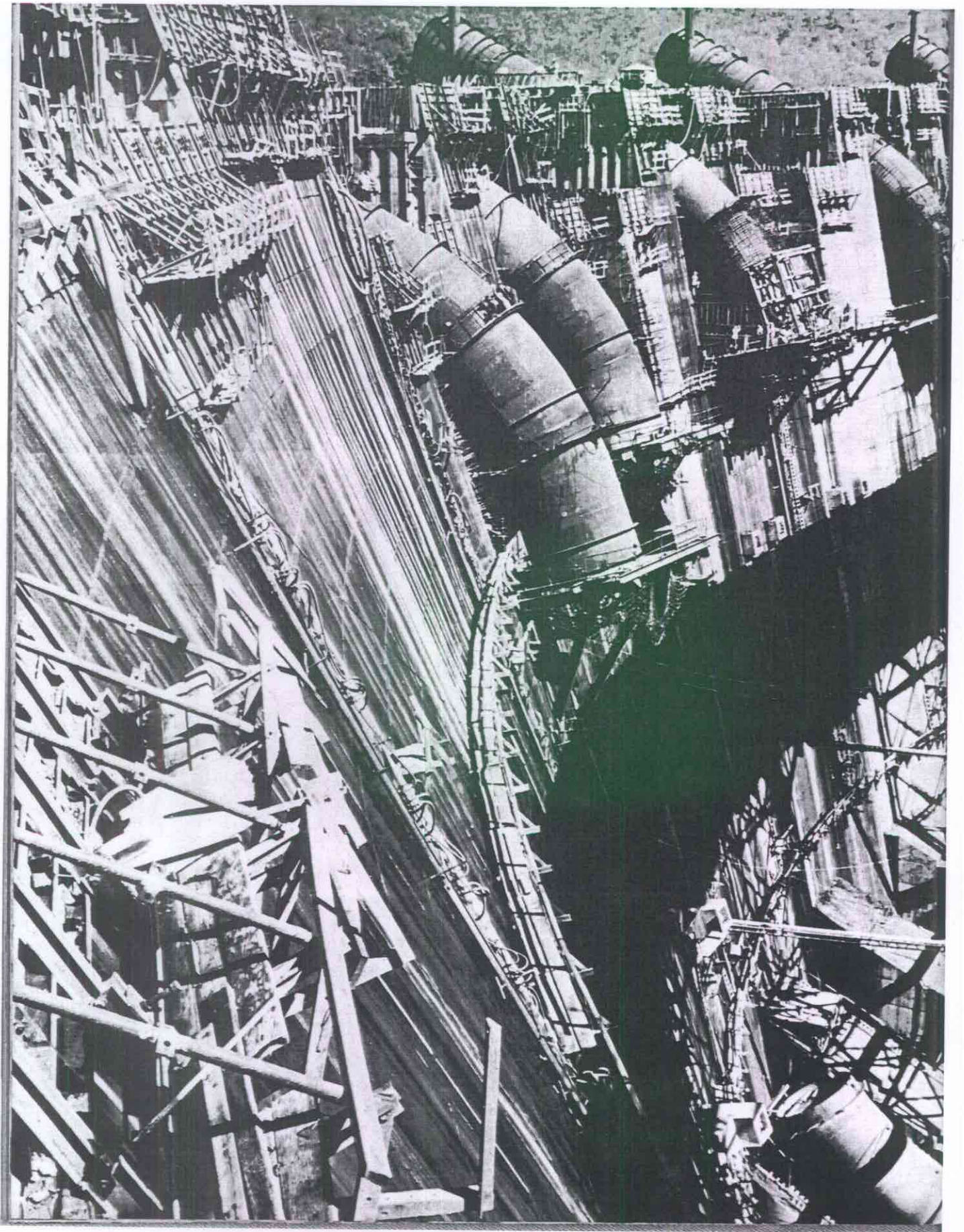
. . . and one third of the world is hungry all the time.



IV



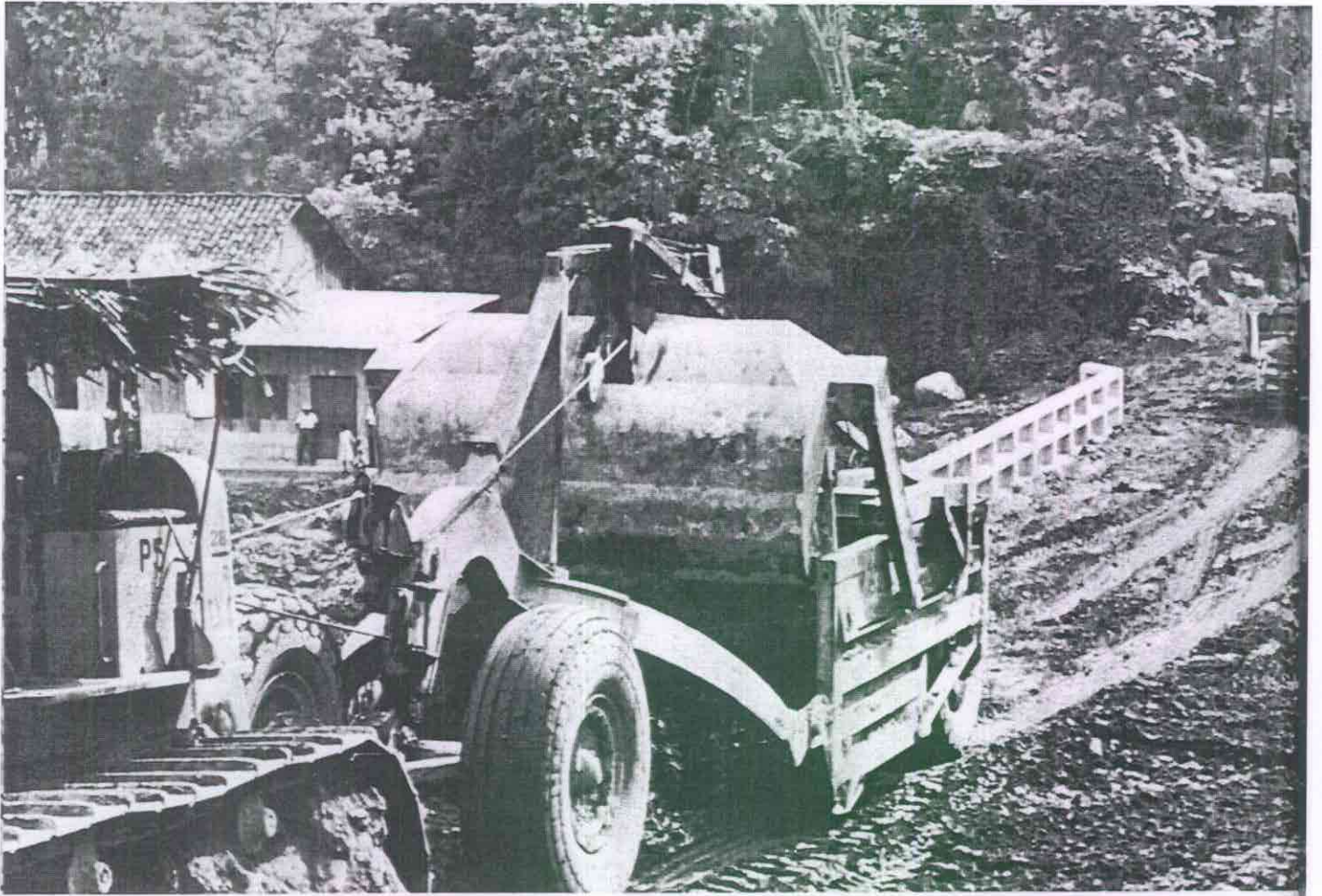
THE WORLD WITHIN REACH

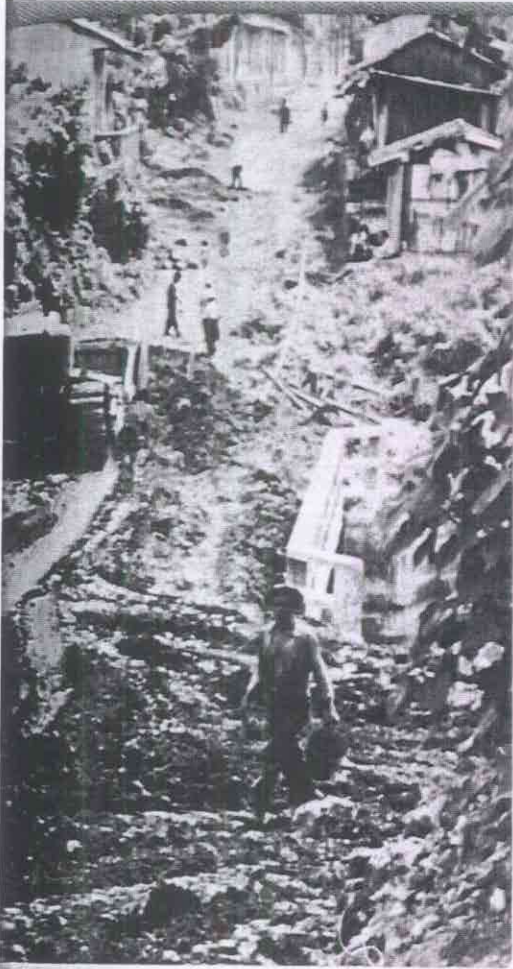


FOR THE FIRST TIME IN HISTORY

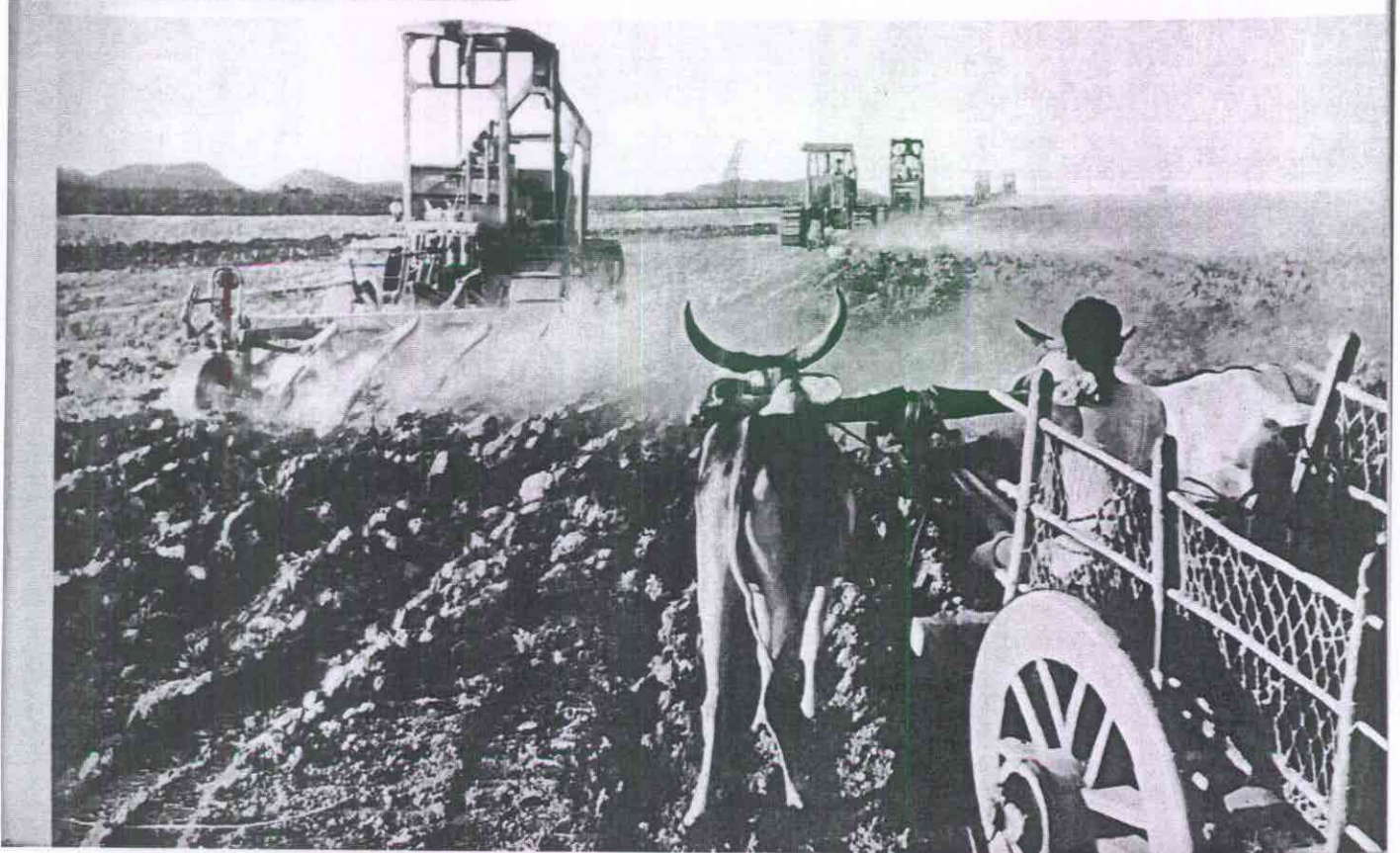
we have the knowledge and resources to transform utterly the conditions of life on this planet. With the money, ingenuity, intelligence and energy that the world now expends on preparing for war, advances hitherto undreamed of are now within our reach. Slums can be cleared, water can be brought to deserts, highways can be thrust through jungles. Hospitals, schools, playgrounds, parks, can be built on a scale beyond imagination.

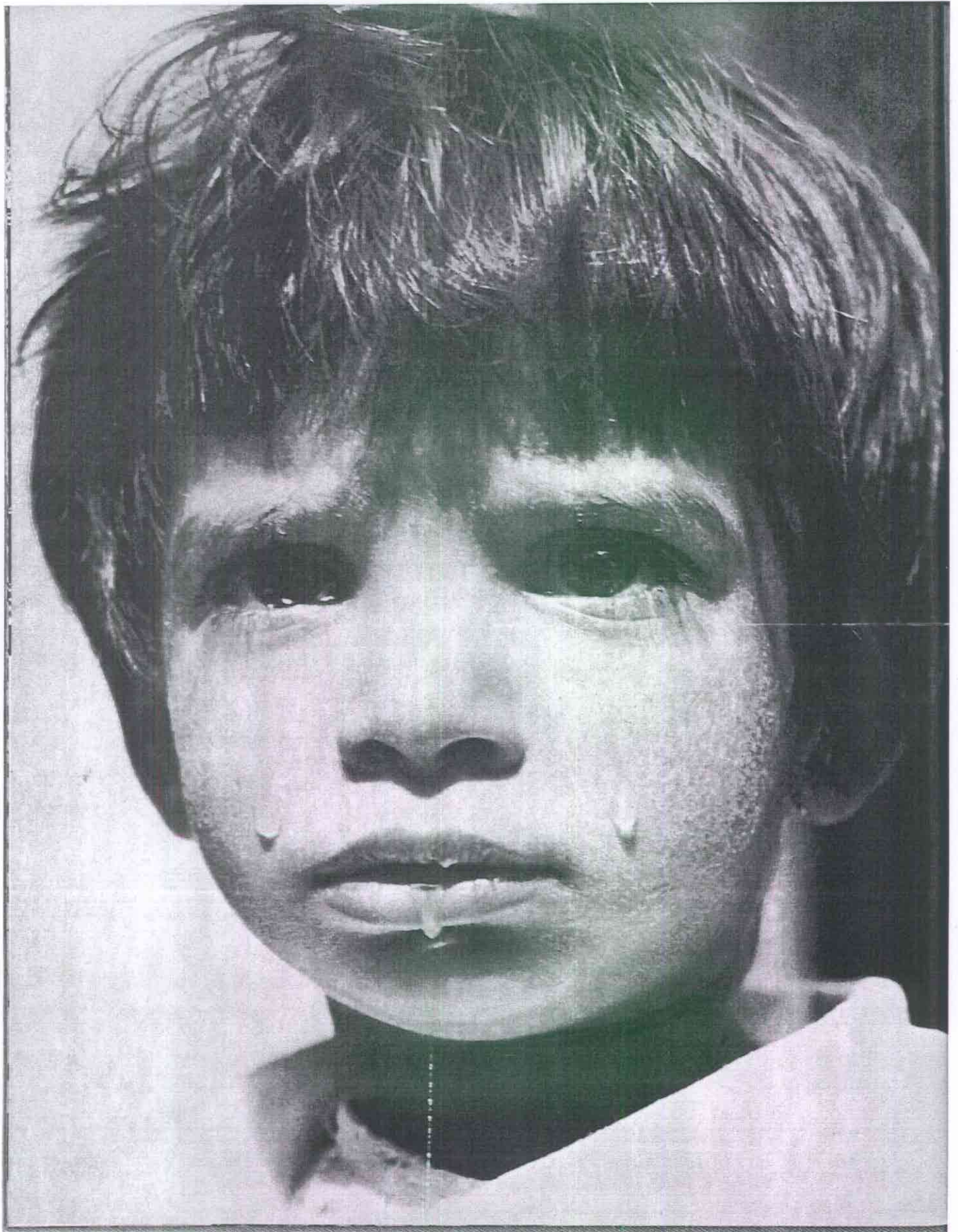






Within a generation hunger, disease and illiteracy might be things of the past, and the story of mankind would have a new and extraordinary beginning.



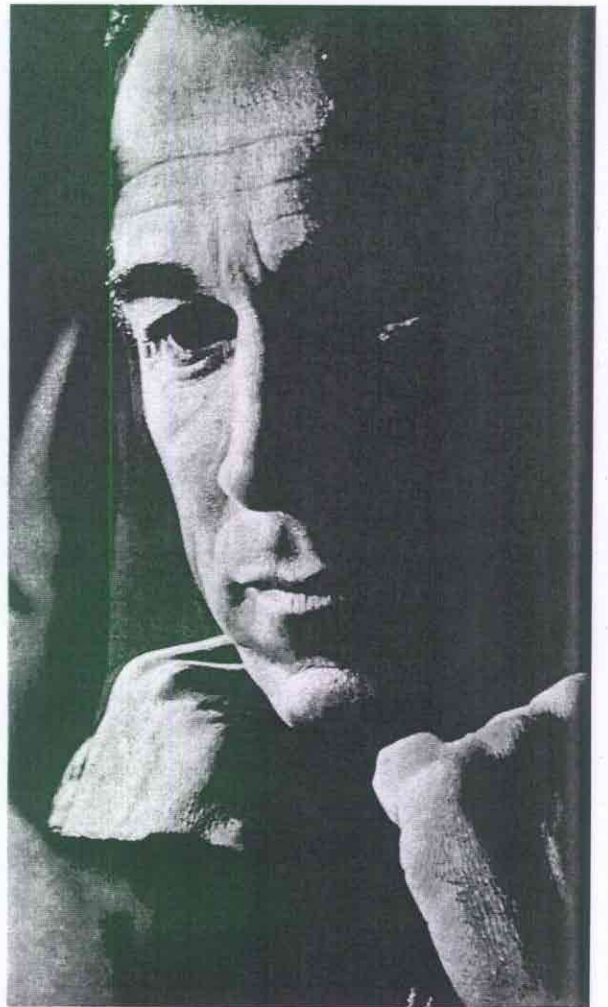


IN OUR CONFUSION, SOME THINGS ARE NOT CONFUSED

THESE PROPOSITIONS APPEAR TO US AS SELF EVIDENT:

- That freedom cannot be preserved by sacrificing the lives of half our population. No freedom, no democracy, could possibly be salvaged from such national mutilation?
- That no nation's security can be bought at the cost of another's.
- That a continuation of the arms race is almost certain to end in a world catastrophe.
- That this moment in history when the future of mankind balances on a razor's edge, is not the time to speak insolently to our enemies or to take every opportunity to taunt and belittle them, however provocative we consider their behavior to be.
- That instead we should be searching for areas of agreement rather than enlarging and inflaming areas of disagreement.
- That an acknowledgement of our common humanity and a measure of humility are likely to serve our interests better than a blind reliance on military power—remembering that we are never more likely to be wrong than when we feel most self-righteous.
- That "wanting peace" is simply not enough; that the basic causes of our rivalries must be understood if the present direction is to be reversed.
- And most important of all, that those of us living today are but the temporary trustees of an unimaginably long evolutionary process; thus no national purpose however urgent, no political or economic necessity however pressing, can possibly justify the risk of bringing all human history to an end.

Confronted by the stark fact that this world we love so much may soon become an inconceivable hell . . . we are confused, indignant and helpless. What, we ask, can we do? Public protest? Prayer? Political action? Community discussion? Each of us in accordance with his own being will find his way to act.



V SOME FACTS ABOUT NUCLEAR BOMBS

THE OLD AND THE NEW 1 lb of "heavy hydrogen" can produce the equivalent of 26,000 tons of TNT—the explosive used in ordinary bombs.

World War II "blockbuster"	1 ton of TNT
World War II heavy air raid	1000 tons " "
Early A-bomb (Hiroshima)	20,000 " " "
Early H-bomb (1952)	3,000,000 " " "
Later H-bomb (1961)	57,000,000 " " "

A single 57 megaton H-bomb has the equivalent explosive power of a heavy 1,000 ton World War II air raid continued every day for 156 years.

DELIVERY H-bombs can be carried in faster-than-sound aircraft, or can be delivered by rocket-propelled missiles fired from aircraft, from distant bases or from under the ocean. The speed of these missiles is so great—up to 20,000 miles per hour—it is almost impossible to intercept them; and with the most modern devices they are not likely to miss their targets. Even if anti-missile missiles are developed *some* enemy missiles are certain to get through.

WORLD WAR III An official estimate of casualties from two 10-megaton bombs on New York was 6,098,000 killed and 3,278,000 injured. (*Biological and Environmental Effects of Nuclear War*, U.S. Government Printing Office.)

A 10-megaton bomb exploded in your neighborhood would, in addition to killing or mutilating all within the immediate area:

- ▶ Give off a flash quicker than your eyes can blink and would probably burn the eyes of people looking at it from 200 to 300 miles away. (The eyes of rabbits 300 miles away were burned from the flash of an H-bomb explosion in 1958.)
- ▶ Grow in 40 seconds to a blindingly bright fire-ball three miles across, and as hot as the inside of the sun.

- ▶ Burn you fatally or very badly up to 22 miles away if you were unprotected.
- ▶ Start a vast number of fires up to 20 miles away.
- ▶ Kill or injure people by flying glass and debris up to 14 miles away.
- ▶ In a general H-bomb war this scene of mass destruction would occur not in just one, but perhaps in fifty different parts of the country simultaneously.
- ▶ If a 100-megaton bomb was exploded, the fire-ball would be 8 miles across, brick houses would be destroyed within a circle 34 miles across, and innumerable large fires would be started up to sixty miles away.
- ▶ The fall-out from a 100-megaton bomb would be so great that in an area of at least 1,000 square miles anyone unprotected for as long as an hour would die from the radio-activity. *The Guardian* (England)

GENETIC EFFECTS The relatively small A-bomb exploded at Hiroshima caused many women to give birth to stillborn or deformed children.

The consequences of a general H-bomb war would be so much worse that there is really no comparison. Survivors of the blasts would in effect be living for days or weeks in a radioactive oven. Every responsible scientist admits that an H-bomb war would leave us with an appalling total of inborn deformities that would continue for many generations. The final toll of a general nuclear war might be hundreds of millions of cripples, idiots and invalids.

SHELTERS Shelters offer no solution.

"The ground burst of a 100-megaton weapon would scoop out a crater 350 feet deep and a mile in diameter . . . *in solid granite*. And if nice solidly built shelters hundreds of feet deep saved one from blast, the searing heat and exhaustion of oxygen caused by the fire-storm would trap most survivors within a radius of twenty to sixty miles."

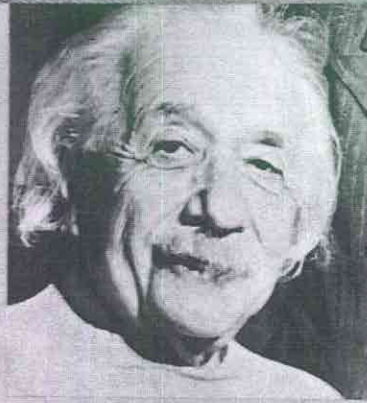
Hanson W. Baldwin, military editor of the *New York Times*.

STOCKPILES The nuclear powers have already made and stockpiled more bombs than they can ever use. The United States alone has a stock of nuclear bombs equivalent to 30 tons of high explosive TNT *for every man, woman and child in the entire world*.



The ingenuity of our scientists may be unable to save us from the consequences of a single rash act. . . . If I am sometimes discouraged it is not by the magnitude of the problem but by our colossal indifference to it.

GENERAL OMAR H. BRADLEY



The splitting of the atom has changed everything save our modes of thinking, and thus we drift toward unparalleled catastrophe.

DR ALBERT EINSTEIN

FIRE-STORM Experts are convinced that an H-bomb explosion over built-up areas would result in the phenomenon known as a *fire-storm* which occurred at Hiroshima and as a result of intensive air raids on Hamburg and Dresden. A fire-storm is a gigantic, uncontrollable fire that sucks in air at hurricane force which both feeds and fans the flames until everything is destroyed.

Martin Caiden, formerly Atomic Warfare Specialist with the New York State Civil Defense Commission described a fire-storm in his book, *The Night Hamburg Died*:

A *thing* of pure flame rears high over Hamburg, a fire which has captured an area of almost six square miles, which howls in elementary fury and terrorises all who are caught in its blinding glare.

The winds sucked in by the fire-storm reached a speed of 150 m.p.h. and the flames roared three miles up into the sky.

The Police President of Hamburg wrote in his report:

The scenes of terror which took place in the fire-storm area are indescribable. Children were torn away from their parents' hands by the force of the hurricane and whirled into the fire.

People who thought they had escaped fell down, overcome by the devouring force of the heat and died in an instant. . . . A population ready and prepared for the alarm were literally overwhelmed by the fire. . . .

That was Hamburg after a heavy raid with conventional bombs; today a single H-bomb might have an explosive force 50,000 times greater than all the bombs used on Hamburg during that raid.

To these facts and these descriptions a sane person can have only one response—it must never happen.

Let there be a world!

