

# NEWS ZERO

## THE NEW YORK TIMES AND THE BOMB

Beverly Deepe Kever

Copyright © 2004 by Beverly Deepe Kever

All rights reserved.

Cover work by Matt Wuerker and Erica Bjerning

Cover photo: Blast over Enewetok Atoll 1952, photo from US Department of Energy, courtesy of Davor Z. Pevec.

Library of Congress Cataloging-in-Publication Data is available from the publisher on request.

ISBN 1-56751-282-8 paper

ISBN 1-56751-283-6 cloth

Common Courage Press

Box 702

Monroe, ME 04951

(207) 525-0900; fax: (207) 525-3068

orders-info@commoncouragepress.com

See our website for e-versions of this book.

[www.commoncouragepress.com](http://www.commoncouragepress.com)

First Printing

Printed in Canada

#### COPYRIGHT ACKNOWLEDGMENTS

The author and publisher acknowledge with gratitude permission for use of the following materials:

Excerpts from *For the Good of Mankind: A History of the People of Bikini and Their Islands* by Jack Niedenthal, Majuro, Marshall Islands, Micronitor Publishing, 2001. Reprinted by permission of Jack Niedenthal.

Excerpts from *Operation Crossroads: The Atomic Tests at Bikini Atoll* by Jonathan M. Weisgall, Annapolis, MD: Naval Institute Press, 1994. Reprinted by permission of Jonathan M. Weisgall.

Excerpts from *Reminiscences of William L. Lawrence* in the Columbia University Oral History Research Office Collection. Reprinted by permission of the Columbia University Oral History Research Office.

Chart from R.K. Whyte, *British Medical Journal* 1992, 304:344. Reprinted by permission of BMJ Publishing Group.

Photographs by Chris McDonough in Chapter 4 reprinted by his permission.

# Contents

## PART 1: 1945-1962

INTRODUCTION	1
Chain Reaction: Neutrons, News, News Zero	
CHAPTER 1	24
<i>The New York Times</i> as Propaganda Organ: What Made It the Ideal Outlet	
CHAPTER 2	39
Conflicts of Interest Behind and Beyond the “Atomic Curtain”: The Bomb as a Second Coming of Christ Yarn	
CHAPTER 3	49
News Zero from the First Ground Zeroes	
CHAPTER 4	84
From Orality to Infernos: “These Were the Forgotten People”	
CHAPTER 5	108
Building a Superpower by Standing on the Shoulders of Native Peoples	
CHAPTER 6	136
<i>The Times</i> Defines Its Duty: “We Must Accept Our Destiny as the Defender of the Free World”	
CHAPTER 7	151
The Lost Millenia: From Here to Near-Eternity	
CHAPTER 8	164
“Standing at the Gates of Hell Looking into Eternity”	
CHAPTER 9	198
Americans “Are Smart At Doing Stupid Things”: H-Bomb’s Biggest Fallout in U.S. History (But Not in <i>The Times</i> )	

PART 2: 1980-2004

CHAPTER 10	234
“The Only Victims of U.S. Nuclear Arms Since World War II Have Been Our Own People”	
CHAPTER 11	261
Conclusion: News Zero and the Next Rough Drafts of History	
APPENDIX	293
Methodology	
ENDNOTES	309
BIBLIOGRAPHY	352
INDEX	366
ACKNOWLEDGMENTS	373
ABOUT THE AUTHOR	375

## List of Figures

- Figure 1—Distribution of Energy in a Typical Air Burst
- Figure 2—Distribution of Sites, 1945-62
- Figure 3—Distribution of Minimum Yield, 1945-62
- Figure 4—Distribution of Minimum Yield, 1945-92
- Figure 5—First Day Mortality Table for England-Wales and the United States by Calendar Year

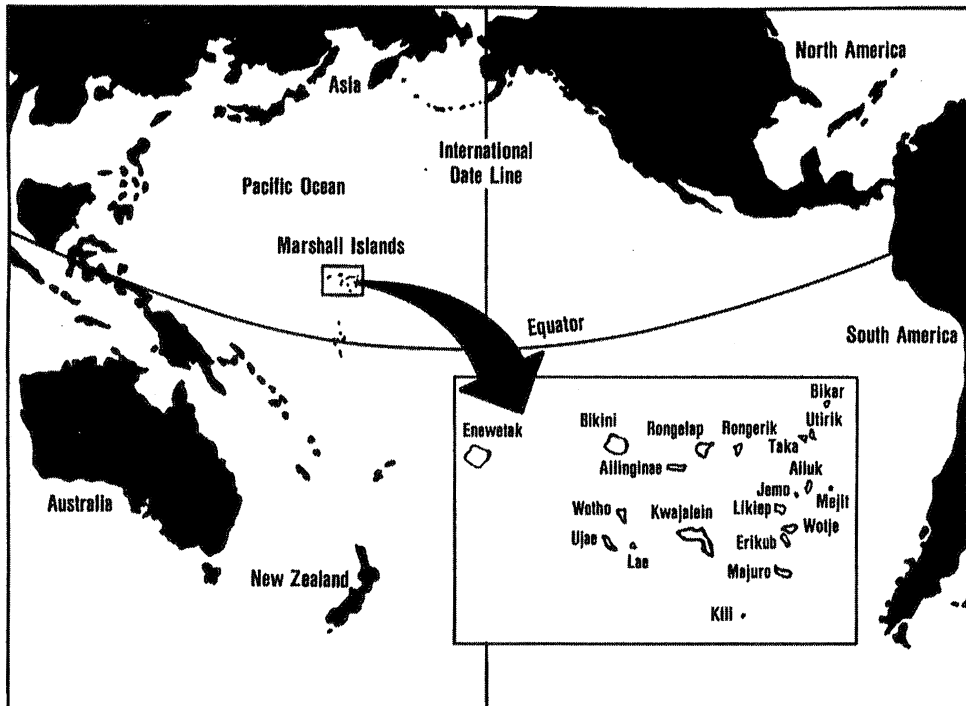
## List of Tables

- Table 1—U.S. Pacific Nuclear Weapons Tests by Operation, Yield, Number & Percent of Tests Reported in *The New York Times*
- Appendix Table 1—U.S. Nuclear Tests in the U.S.-Administered Pacific Islands 1946 Through 1962 and *The New York Times* Coverage of Them
- Appendix Table 2—Conclusions of the 1996 World Court Decision on the Legality of the Use or Threat of Nuclear Weapons
- Appendix Table 3—1946 Congressional Action on Operations Crossroads and *The New York Times* Coverage



**PART I:**  
**1945-1962**

# THE MARSHALL ISLANDS



Source: Brookhaven National Laboratory



# INTRODUCTION

## *Chain Reaction:*

### *Neutrons, News, News Zero*

It was a late Friday afternoon in 1939 when *The New York Times* science writer dropped in on an informal discussion by two refugee physicists at Columbia University. During that talk on splitting uranium atoms, Italian exile Enrico Fermi spoke two words that *Times*man William L. Laurence sensed would change man's destiny forever: "Chain reaction!"

The words and blackboard hieroglyphics of Fermi and of Denmark's Niels Bohr on February 24 laid out the theory that an atom of uranium's rarest type, U235, could be split into two by pelting it with a neutron, one of the two basic particles in the nucleus of most atoms and one that carries no electrical charge. That splitting or fission would, in turn, create two more neutrons to split two more atoms so that a self-perpetuating cycle would result to unleash unimaginable quantities of energy. In eighty such steps, Laurence calculated, the number of atoms split in a chain reaction would total a trillion trillion. He surmised that the atomic fire would be more powerful than any fire ever built before on earth. As Laurence left the meeting in the physics lecture hall and stepped into the foggy evening, he realized he had witnessed one of the most momentous meetings in the history of science. The next day Laurence's exclusive story of the meeting was big news in *The Times*, then one of the world's most influential media in the pre-television era, being read by diplomats, generals, decision-makers and opinion leaders worldwide.

From the dawn of the atomic-bomb age, Laurence and *The Times* almost single-handedly shaped the news of this epoch and helped birth the acceptance of the most destructive force ever created. Being the world's most influential news source, they recognized and were privy to the magnitude of this made-in-America atomic era and produced—or omitted—the themes and images of the epoch that would inform, or not inform, *Times* readers globally.

The news-and-views shaping process as exemplified by the reporting by Laurence evolved over time. First, came his euphoric phase. Far out-

acing his rivals before World War II, Laurence wrote lengthy *Times* articles about the atom splitting that he calculated could produce boundless power and transform the earth into a paradise of plenty, where man could abolish poverty “and return to the Eden he had lost.” Then came the race-with-the-Nazis phase. On May 5, 1940, Laurence revealed to the public that German scientists were suspected of seeking to harness this boundless energy for military weapons, a view that émigré scientists also used to persuade the Roosevelt Administration to forge ahead with A-bomb research and development. Years later, the public learned Hitler’s regime had not even tried to make an A-bomb.

Then, toward the end of World War II came Laurence’s “monopoly propaganda” phase. That began when Laurence was detached from *The Times* to chronicle exclusively for the War Department—and all newspapers—the making and detonations of the atomic bomb. Only three days before witnessing the first atomic explosion at Alamogordo, New Mexico, Laurence alerted *Times* managing editor Edwin James that the explosive impact of the still secret weapon was far bigger than anyone could imagine. When the news story does break, Laurence wrote on July 12, 1945: “The world will not be the same after the day of the big event. A new era in our civilization will have started.”<sup>1</sup>

More than any other journalist, Laurence was allowed to be an eyewitness of Ground Zero, that point directly above, below or at which a nuclear weapon explodes but a term used today in broader contexts such as the September 11, 2001 terrorist bombing of the World Trade Center towers in New York. Laurence reported that “Zero” was the code name for the test site of the first atomic bomb, the Trinity shot detonated on July 16, 1945, in New Mexico. Referring to the 300 scientists, 250 military personnel and others eyewitnessing the shot, Laurence dramatized, “For everyone concerned Zero became the center of the Universe. Time and space began and ended at Zero. All life centered around Zero. Everyone thought only of Zero and the zero hour.”<sup>2</sup>

## From Ground Zero to News Zero

Yet, investigations in this book reveal, *The Times*<sup>3</sup> coverage from Ground Zero omitted or obscured the defining—and harmful—effect of the atomic bombs: radiation and radioactivity. News Zero about radiation and radioactivity in *Times* articles kept in the dark the lay public, production

workers and out-of-the-loop opinion leaders about the irreversible, long-term and adverse effects of atomic-bomb production, testing and use. Radiation is the unique type of energy generated by atomic weapons at the moment matter is converted to energy, thus distinguishing them from conventional weapons. In contrast, radioactivity is the irreversible continued matter-to-energy conversion at a future time and rate; for example, the radioactivity of plutonium lives on for 500,000 years, thus adding to today's perils for the planet. The dangers of radiation and radioactivity had generally been known since the late 1800s, when some say the atomic age actually began. As documented in Chapter 3, U.S. bomb-makers and those accompanying them, like Laurence, were well aware of the hazards of radiation and radioactive fallout from the time of the top-secret Trinity test in July 1945 through the aftermath of the A-bomb's first use on the populated centers of Hiroshima and Nagasaki, which ended World War II in 1945.

A year later and for the next 15 years, U.S. nuclear weapons were tested 86 times on remote atolls under U.S. governance and in Pacific waters. The new specific dangers arising from radioactive elements of the atomic age were early on most readily discoverable radiating from the Ground Zeroes in Japan and in the small specks in the Pacific Ocean where U.S. nuclear weapons were tested. But the effects of these extraordinary infernos largely resulted in News Zero coverage in *The Times* about the scope and persistence of radiation and radioactivity emanating from these first Ground Zeroes.

Because of this black hole resulting from a systemic practice of neglecting to highlight the critical significance of radiation and radioactivity, *The Times* aided the U.S. government at critical moments in implementing an information policy that covered up or minimized the scope and impacts of radiation and radioactivity in Japan and on Pacific Islanders resulting from nuclear weapons use or testing on or near their homelands. The adverse effects of radiation and radioactivity on the people's health and environment there were virtually ignored or even denied by the U.S. government in public announcements and were given miniscule coverage in *The Times* during that period, as detailed in Chapters 3 and 9. Even more, as detailed in Chapter 3, *The Times* did more than commit the sin of omission when Laurence himself and the photo-editing staff covered-up the government's lie about the absence of radiation at the Trinity test site and thus misled readers.

As investigations in this book reveal, *The Times* tolerated or aided the U.S. government's Cold War cover-up that resulted in minimizing or denying the health and environmental effects arising from the use in Japan and later testing of the most destructive weaponry in U.S. history in Pacific Islands once called paradise. Far from rediscovering the Eden that Laurence had prophesied, the U.S. government's nuclear program devastated two population centers, obliterated a way of life for many Pacific Islanders and dusted every person on the planet with radioactive particles.<sup>4</sup>

Findings in this book are based on the first systematic, across-time investigation into the role of the world's most influential news medium in the pre-television era at the dawn of the atomic age. The investigation zeroed in on a fixed period, place and specific newspaper:

The Time: the beginning of the nation's atomic-bomb epoch in 1945, then the period from July 1, 1946 through November 4, 1962 when the U.S. conducted its first and most destructive peacetime Pacific nuclear weapons tests and then an epilogue from June 1, 1980 to Jan. 15, 2004 to review recent coverage;

The Place: the Pacific Islands which the United States controlled after World War II and the international Pacific waters; these islands provided the unique geographical sites that made possible the U.S. testing of nuclear weapons and delivery systems that by the 1990s resulted in a Cold War triumph over the Soviets but left behind a bitter legacy in a region that had once been described as paradise;

The Newspaper: *The New York Times* (herein *The Times*), selected because during this pre-television era it was widely acknowledged to be the world's greatest newspaper; its science reporter had been exclusively privileged by the U.S. government to eyewitness the development and use of two atomic bombs during World War II and was among those journalists witnessing four Pacific nuclear weapons tests.

Besides deficient reporting from and about Ground Zero, News Zero in *The Times* was also evident in other ways that still haunt us today. Especially significant was *The Times'* neglecting to highlight the 500,000-year radioactive existence and the carcinogenicity of plutonium, the signature ingredient in each Pacific nuclear weapon that has left an unsolved waste problem a half century later. As detailed in Chapter 7, the perils and longevity of plutonium's radioactivity were so well known to scientists worldwide at the dawn of the atomic age that it was useless to consider them as military secrets. Thus, *The Times* had the opportunity to include

this vital fact in each news story and editorial mentioning plutonium and its dangers without fear of infringing on national security matters. By omitting this material fact, *The Times* voluntarily toed the U.S. government line at the beginning and height of and even throughout the Cold War. Even in the post-Cold War era, as documented in Chapter 10, *The Times* continues this omission of such a material fact for its readers.

Moreover, *The Times* accepted without question or explanation the government's secrecy policy, as detailed in Chapter 6. By failing to challenge or spotlight this secrecy, the newspaper helped to keep the world in the dark about the complete number and yield of the Pacific weapons tests, even though the Soviet Union was well aware of them. Only decades later were the total number and destructiveness of these tests officially revealed, but these are still unreported in *The Times*. Thus, the newspaper neglected to explore the impact and significance of U.S. Pacific nuclear weapons experiments not only on displaced and irradiated islanders whose ancestral homelands served as proving grounds for the tests but also on the larger world community.

Through such lapses in coverage, *The Times* aided the U.S. government in keeping in the dark thousands of U.S. servicemen, production workers and miners, even civil defense officials, Pacific Islanders and others worldwide about the dangers of radiation. This bias of omission of radiation and radioactivity deprived readers of a material fact essential for grasping early on the stakes of the nuclear age. Disclosure was essential for holding elected government officials accountable on a timely basis for decision-making affecting readers and possibly their descendants for generations and for fathoming the negative impact of U.S. nuclear weapons tests on Marshall Islanders and their ancestral homelands. Reporting this material fact in each relevant news story and editorial might early have added more fuel to the public outcry that by 1962 helped to lead to the U.S.-Soviet treaty banning nuclear testing in the atmosphere, underwater and in space.

Besides omission of material facts, *The Times* used other news practices and policies that propelled a world-class newspaper to become little more than a propaganda outlet for the U.S. government in its drive to cover up the dangers of immediate radiation and future radioactivity emanating from the use and testing of nuclear weapons, as detailed in Chapters 3 and 5.

*The Times* did publish the text of and lengthy articles about reassuring, often misleading, U.S. official documents, news conferences and

statements related to radiation and radioactivity when they were released. The newspaper sometimes even printed primers for schoolchildren or laypersons in which Laurence translated the arcane technical language of government documents. But such extraordinary official labeling as “clean” or “humanized” H-bombs was uncritically echoed on *The Times* newspapers, thus adding credence to government propaganda. Oppositional comments of scientific or medical experts contesting U.S. official reassurances about the health and environmental effects of the testing were often relegated to brief items, inconspicuously placed. Thus, at issue here is not the quantity of news items and editorials published but rather the accuracy, fairness and comprehensiveness that readers had come to expect from *The Times* and that the newspaper itself had touted for decades.

Coverage might have been comprehensive by independently reporting on the plight of uprooted and irradiated Pacific Islanders, discussing radiation more conspicuously, explaining the multi-millennial radioactivity of plutonium, publishing opposing views, delving into the potential long-term health and environmental impacts that officials ignored in their myopic announcements and challenging, or at least reporting on, governmental secrecy. Such practices and policies are critical if newspapers are to be fair and accurate. The emphasis given to government views profoundly twisted the public’s understanding of the nature and legacy of the weapon.

Through such News Zero practices at the dawn of the atomic age, *The Times* failed to measure up to four high standards it had established for itself and led others to believe it had achieved:

- to give all the news;
- to give it impartially without fear or favor;
- to provide a forum for all questions of public importance;
- to invite discussion from all shades of opinion.

The days of open-air (atmospheric) testing and actual use of nuclear weapons may be behind us. What can the politics and policies of media coverage nearly half a century ago tell us about today’s coverage? Quite a lot. As detailed in the epilogue looking at the period from 1980 to 2004, the problems of bias, emphasis, omission and cultural blinders are still warping perceptions of the world and the U.S. role in it. The bitter legacy of U.S. Pacific nuclear testing evidenced after half a century by cancer tolls and still-radioactive atolls is still largely untold in *The Times*, as are amazing revelations about human radiation experiments on islanders even

when they are detailed in Congress. The decades, centuries or even millennia of radioactive existence of elements are still routinely omitted from *Times* news articles and editorials for reasons the newspaper's management is unable to explain.

What can be done? Among recommendations detailed in Chapter 11 are these key four:

- initiating an in-house news audit of critical issues;
- establishing a system for scanning a broader array of information sources that go well beyond relying so heavily on official ones and that give voice to dissents and victims of U.S. policy;
- demanding that the U.S. government justify its policy on secrecy;
- providing nuclear news with more depth, including the radioactive persistence of each long-lived element mentioned in news articles.

## The Silent Nuclear Terror Lives On

An assessment of *The Times* coverage of these unprecedented events in Japan and the Pacific sheds fresh light on what historian-attorney Jonathan M. Weisgall has called the silent nuclear terror of radioactivity and radiation. It is a unique kind of terror, of a far different order of magnitude than the biological and chemical weapons that it is often mistakenly identified with by the Bush Administration. Although the U.S.-Soviet doomsday confrontations of the Cold War have passed, terror of nuclear weapons has proliferated into the more fragmented and uncertain realms of rogue states, renegades and Third World nations embroiled in incendiary disputes.

Indeed, even after the fall of the Soviet Union in the early 1990s and before the 9/11 shock of 2001, the U.S. government had secretly recognized in 1999 the real threat of this silent nuclear terror and swung into action. It began reviving laboratories and equipment developed at and since the dawn of the atomic-bomb age that were again viewed in 1999 as vital for detecting radioactive fallout from nuclear weapons or dirty bombs exploded on U.S. soil, *Times*man William J. Broad reported on March 19, 2004.

The first two U.S. peacetime atomic experiments at Bikini Atoll, codenamed Operation Crossroads, provided a "horrifying, sinister lesson in warfare. Radioactive fallout was a new weapon of terror," Weisgall wrote in 1994. He describes fallout as "a weapon of biological extinction, truly

designed more for genocide than for the destruction of buildings or military targets.” The second Crossroads shot, codenamed Baker, revealed “the true dimension of fallout as a biological weapon of terror, but the media and the military focused more on the instant effects of the bombs on target ships.”<sup>5</sup> As discussed in Chapter 5, more thorough press coverage about Baker’s radioactivity might have alerted admirals, policymakers and government leaders to call off the second disastrous underwater nuclear weapons experiment, Operation Wigwam, held a decade later only 450 nautical miles southwest of San Diego, thus preventing cancers from afflicting scores of servicemen, and taking greater precautions a year earlier to safeguard Pacific islanders from fallout, as discussed in Chapter 9.

Radiation is particularly frightening because it can not be heard, seen, felt or tasted in foods that have absorbed it, thus making it a random, phantom terror very different from the awesome destructiveness caused by heat and blast. Radiation can be like a drive-by shooting executed with an invisible, silent bullet that the victim does not even feel until years later when diseases appear.

Radiation occurs when matter is converted to energy through the spontaneous decay or transformation within an atom of a radioactive substance like plutonium.<sup>6</sup> Some of this decay will be occurring for hundreds or even thousands of years, thus adding to the radiation already resulting from nature, consumer goods and medical usage. While this decay is occurring, it adds a small risk to unsuspecting individuals worldwide. But because so many are exposed worldwide, many thousands of unsuspecting individuals may die prematurely.<sup>7</sup> Radiation and radioactivity will be posing even more health and environmental risks to those near nuclear production plants, test sites, waste repositories and uranium mines. Even now, invisible fallout continues from the atmospheric weapons tests made through the 1960s by the United States, the United Kingdom, France and the Soviet Union and the last one made by China in 1980.<sup>8</sup>

Threats of exposure to this silent nuclear terror have been reported in the news in the post-9/11 era in numerous disparate and widespread developments. The September 11, 2001 attacks on the World Trade Center and the Pentagon have sparked their own chain reaction: increased fears of radiation released from nuclear power plants possibly attacked by a suicide hijacker of an aircraft; discovery of the storage near San Francisco of low-level radioactive waste in tents because the newly constructed building failed to meet government safety standards; speculation about radioactive



fallout reaching the nation in case of nuclear exchanges in India, Pakistan or the Middle East; a lawsuit by South Carolina's governor to stop the U.S. government from depositing in his state 34 tons of weapons-grade plutonium waste transported halfway across the country from Rocky Flats, Colorado; the arrest of an American citizen suspected of planning to build a "dirty bomb" made of conventional and radioactive materials and then unleash it, possibly in Washington, D.C., and distribution of pills to schoolchildren and adults living near a nuclear power plant north of New York City to protect them if necessary from the risk of radiation-induced thyroid cancer.<sup>9</sup>

Even the post-9/11 agreement between the United States and the former Soviet Union to slash their nuclear weapons arsenals produced no reduction in global concerns. With the dissipation of what historian Herbert Feis had described as the nuclearized Cold War era of "mutual terror" and others called "the balance of terror," new fears arose that the Russians have been unable to secure adequately their nuclear weapons, materials and wastes and were actually helping "rogue states" and anti-American terrorists get their hands on radioactive materials.<sup>10</sup> In short, the "balance of terror" that once shaped the doomsday threats of nuclear war between two superpowers has given way to increased U.S. concern over the silent terror of radiation and radioactivity resulting from the proliferation of homemade radioactive dirty bombs or small nuclear-tipped missiles used by nations embroiled in age-old conflicts in the Middle East, South Asia or North Korea. Yet, the silent nuclear terror of radiation and radioactivity lurks not only from adversaries, terrorists and black-marketeers.

## Lessons for U.S. Re-Nuclearization

*The Times* bias of omission and the U.S. government actions that were kept secret for decades until 1994 provide an instructive backdrop to the Bush Administration's re-nuclearization programs that also roll back the clock. *The Times* practice of minimizing or ignoring descriptions in past articles of the longevity and perils of radiation and radioactivity during the testing period has carried over in coverage by the general-circulation press to the Bush Administration's plans and Congressional approval to resume research and design on new nuclear weapons that had been stopped in the Cold War but that now may well re-ignite another arms race. In coverage of new nuclear research and development plans approved by Congress in

mid-2003, news neglect persists about the prospects and perils of adding more radiation and radioactivity to the environment.<sup>11</sup>

Likewise, little public, official or press discussion on health and environmental impacts of radioactivity has been devoted to the Bush Administration's proposal to begin after decades to build new nuclear power plants even before solving the problems of how to dispose of the radiotoxic residue of the existing ones.

Threats of hidden and silent nuclear terror were again spread by the U.S. government within the country and abroad even without citizens being officially warned. The era of open-air testing was marked by vastly more numerous and destructive explosions than the public was made aware of at the time. Today, the extent of recent U.S. shipments of uranium around the country and the world, shipments that pose a severe risk, was much more widespread than reported by the government and thus popularly understood. *USA Today* reported in mid-2001 that previously unannounced shipments were made to neighborhoods across the nation and worldwide of uranium and plutonium recycled from the nuclear weapons testing program of the past 50 years, thus increasing pollution and health threats for thousands more citizens globally. Using more than 1,000 pages of documents gleaned from Freedom of Information Act requests or quietly released by the government, Peter Eisler reported that recycled uranium was shipped worldwide from 1952 until 1999, when concerns about its contamination surfaced. About 250,000 tons of tainted uranium—more than double the estimates made two years earlier—were distributed to 10 times more sites than the government had previously announced. More than 100 federal plants, private laboratories and universities received the recycled uranium, thus exposing more workers and researchers to higher risks of cancer or other illnesses.

Eisler also reported that since the 1980s the U.S. military has used super-hard depleted uranium that contains some plutonium in armor-piercing munitions that bombarded sites in the earlier Gulf War and Kosovo. These "tank-killer" shells and bombs used by NATO warplanes gave rise to health concerns of U.S. servicemen, health studies by NATO and the World Health Organization and to Iraqi complaints of environmental damage and increased cancer risks. The U.S. Army has not stopped using these kinds of munitions.<sup>12</sup> The U.S. Navy confirmed in 2003 it has used them off the coast of Washington in testing antimissile weapons from ships.<sup>13</sup> Whether these munitions were used in spring 2003 during the war on Iraq

was largely unaddressed by the general-circulation press; their earlier extensive use in Afghanistan drew scant media attention.

## News Zero about 8,580 Hiroshima-Size Bombs

The full enormity of the nuclear weapons tests in the Pacific has been shrouded in secrecy for nearly sixty years. Before December 1993, the explosive force or magnitude of 44 of the 66 nuclear weapons tests conducted at Bikini and Enewetak atolls in the Marshall Islands was still classified.<sup>14</sup> Not until 1994 did the U.S. government release a report it calls comprehensive giving the number and yields or explosive force of the 1,054 nuclear tests it had conducted worldwide from 1945 to 1992, when it ceased such experiments. This 1994 list issued by the Department of Energy (DOE), the latest, relevant one available, was used as the basis for calculations made for this investigation and is detailed in Appendix Table 1. Hundreds of pages of documents about radiation from the tests and on humans are still classified.

Amazing developments had occurred during the U.S. Pacific nuclear weapons tests, developments that had they been reported accurately at the time could have changed the course or duration of the Cold War. Only since 1994 could researchers calculate that the 86 Pacific nuclear weapons tests studied here accounted for up to 73.5 percent of the yield—or explosive force—of all 1,054 nuclear tests conducted by the United States worldwide through 1992. The remote Pacific atolls served as the proving grounds vital for U.S. superpower status by providing sites for nuclear tests too powerful and unpredictable to be detonated in the 48 contiguous states and for tests permitting the transition in nuclear delivery systems from conventional bombers to intercontinental missiles. The yield of the Pacific nuclear weapons tests was much more massive than all of the other U.S. tests elsewhere and they occurred in a much shorter span of time. The 16-year yield of the U.S. Pacific nuclear tests totaled at least 128,704 kilotons. This destructive force from 1946-62 equates to detonations of 8,580 Hiroshima-size bombs. That's 10.31 nuclear explosions per week or 1.47 per day.

Yet only 56 percent of the 86 tests were disclosed by the U.S. government or Japanese sources who were detecting the experiments and reported in *The Times* when they occurred, thus hiding from the world the true magnitude, frequency and cumulative effects of the tests. It is hard to imagine what the impact on readers—and governments—would have

been if *The Times* had then performed the most basic task of the press in a democracy: examining and challenging government policy, especially official secrecy. If the newspaper had done so successfully, it could have told the world of these 1.47 Hiroshima-size explosions per day over 16 years in the banner headlines it had used to announce the A-bombing of Hiroshima in 1945. Official U.S. secrecy left unchallenged by *The Times* withheld material facts from its own readers worldwide but hardly deprived the Cold War enemy, the Soviet Union, of this information, for it was monitoring U.S. Pacific testing from nearby international waters.

Could such revelations actually have changed public opinion and debate? Those classifying the documents certainly realized this was possible. As detailed in Chapter 6, many documents were classified because the U.S. feared negative publicity or lawsuits for damages. Not until 1994 did Marshallese and the world learn that Rongelap and Utrik Islanders had been used deliberately for 40 years as guinea pigs to research the effects of radioactive fallout in a medical surveillance program labeled Project 4.1, as is detailed in Chapter 9. The Project had been classified, not for national security reasons, but to avoid “possible adverse public reaction.” And not until 1999 were some islanders informed that they had also been used in human radiation experiments in which they drank or were injected with radioactive tracers from which they received no benefit and for which they had not given the informed consent that Western doctors had ethically requested of their patients for centuries. As discussed in Chapter 10, these were the same Rongelapese whom U.S. doctors examined shortly after the 1954 Bravo disaster and recommended that they should be exposed to no more radiation during their lifetime except for therapeutic purposes. One might excuse *The Times* for being unable to pierce government secrecy that for decades had hidden these human guinea pig experiments from the public—and from the Marshallese subjects. But, as detailed in Chapter 10, *The Times* role was less heroic; it undermined that newspaper’s own principles it had touted for so long. Even when these startling experiments were divulged in a Congressional session in 1996 by a top Marshallese official armed with data from the U.S. government’s own records, news about them was unreported in *The Times*.

The omissions by *The Times* and the cover-up by the government hid no small story, but one of the most horrifying tales of “peace time.” The 1994 declassified data illuminate the awesome atomic yields that exacted sacrifices from the islanders. Many lost their lives or their loved ones as

exemplified by John Anjain, the mayor of Rongelap in 1954, when radioactive fallout from the Bravo shot dusted its inhabitants. Because of the fallout, he and four members of his family were operated on for thyroid tumors. His wife's tumor killed her. His son, who was one year old at the time of the Bravo dusting in 1954, had a thyroid tumor removed when he was 12 and died seven years later from leukemia.<sup>15</sup> As detailed in Chapters 4 and 10, radioactivity and the nuclear testing caused others to endure the pain and suffering of a long list of verified diseases, exiled them from their ancestral homelands where they had maintained their way of life and a self-sufficient livelihood, caused their islands and marine life in their spacious lagoons to be contaminated, and degraded their islands, in some cases for decades, if not centuries, to come. Yet, this Marshallese saga of human suffering and sacrifice has been largely untold in *The Times*.

Because of the victims, this is a story about racism in reporting. The results of the investigation leading to this book add to the growing body of literature critiquing U.S. mainstream news media coverage of racial minorities, specifically one entrusted to U.S. care under a unique United Nations Trusteeship administered throughout the nuclear-weapons testing period of 1946-62 and ending only in 1991. This investigation becomes a part of what eminent scholar Eric Foner calls the "new histories" of the 1990s that have "reshaped our understanding of the American past." These "new histories" have focused on what Foner characterizes as "the experience of previously neglected groups—not simply as an addition to a preexisting body of knowledge but as a fundamental redefinition of history itself."<sup>16</sup> The nuclear age inflicted a disproportionately heavy burden on racial minorities, as detailed in Chapter 4. Including in this book this redefinition of history about the nuclear age in the Pacific region will foster understanding of the plight of the indigenous population that lived through a notably destructive era, provide the general public with a lens through which to view the world's worst and unique weapon of mass destruction and to gain perspective on today's increasingly perilous issues.

## Echoes for the Post-Saddam Reconstruction of Iraq

As the U.S. bungling of the reconstruction of post-Saddam Iraq becomes clearer by the day,<sup>17</sup> it echoes a sad history of earlier U.S. governance abroad. That history from 1947 to 1991, unfolding in the faraway Marshall Islands, has been largely untold in *The Times*. The fact that this

44-year slice of history, even in the post-Cold War era, has been largely untold in *The Times* illuminates how some media work with government to downplay past incompetence and injustices that tarnish the U.S. image abroad and keep voters at home uninformed.

Moreover, as the sexual-humiliation abuses and possible deaths of persons held by U.S. personnel in Iraqi prisons once used as Saddam's torture chambers draw increasing worldwide outrage in May 2004, they also echo the sad history of earlier U.S. disregard for the health of some Marshallese under the U.S.-administered trusteeship sanctioned by the U.N. These islanders were subjected without their informed consent or immediate medical benefit to human radiation research that remained classified for forty years until 1994 for fear of adverse publicity, as detailed in Chapter 9; the disregard was unreported in *The Times* even when disclosures were made before Congress.

The U.S. disregard for the Marshallese was part of a much larger U.S. biological research program conducted under Atomic Energy Commission contracts. As discussed in Chapter 10, these experiments included bombarding the testicles of prisoners in Washington and Oregon state prisons with radiation dangerous enough to cause harm, in 1963-1971, feeding Quaker Oats laced with radioactive tracers to 100 supposedly mentally retarded teenage boys in a Massachusetts state institution in the 1940s and 1950s and providing drinks containing radioactive iron to 820 pregnant women by Vanderbilt University in the late 1940s. These experiments remained hidden for decades until exposed by award-winning investigative reporter and author of *The Plutonium Files*, Eileen Welsome. In perhaps a subconscious linkage with these experiments from the nuclear-testing period, Secretary of Defense Donald Rumsfeld, on May 7, curiously described the enormity of the surprise 2004 media disclosures of the Iraqi-prison scandal as "radioactive; strategic impact in the world" when he appeared before the Senate Armed Forces Committee.

Bikinians uprooted from their ancestral homelands in 1946 so that their atoll could serve as Pacific nuclear weapons test sites are still exiled from their homes because of radioactivity. Some are angry at the inadequacy of U.S. funds promised them to provide health care and land claims. "Why is the US willing to rebuild Iraq, while it still owes Marshallese for what it did to the people here?" asks anguished Bikinian Johnny Johnson. He adds in a newspaper interview in mid-2003, "We've been forgotten by the US."<sup>18</sup>

Also forgotten by the U.S. government and *The Times* were the peo-

ple from another test-site atoll, Enewetak. Upon being dispossessed from their homeland in 1947, 142 Enewetakese had been told by a senior official, Captain John P.W. Vest, that they would be able to return to Enewetak within three to five years. Instead, as discussed in Chapter 8, for the next 33 years they were exiled on the smaller, less hospitable atoll of Ujelang Atoll, 150 miles to the southwest. Conditions there were particularly harsh from 1956 on for the next decade. An anthropologist who later lived among them, Laurence M. Carucci, wrote that the stories of this period told over and over to him by elders focused on “famine and hunger, near starvation and death from illness, food shortage and the limitations of the environment on Ujelang (fishing/collecting), the polio epidemic, the measles epidemic, the rat infestation.”

One Enewetak woman in her forties told Carucci in 1978 about the difficult days during which the times of real famine were more frequent than the times of health. She continued:

And infants, well there were many who disappeared (died), you could not count them. Their stomachs stuck out like they were bloated, and you would never think that they were hungry. Full; as you look at them you would think they were very full. But, in fact they were hungry. And their stomachs were soft all the time, and when they defecated [sic], it was just water, hot foamy water that winnowed away into the sand. Just like nowadays. But they would get hot fevers, then cold chills; hot fevers, then cold and sweaty. And then, in just a moment, they would be gone. Dead, they would never move again. Their life was gone. And, in those days, the wailing across the village was constant.”<sup>19</sup>

When they left their homeland, Enewetak had consisted of 1,919.49 acres formed by their low-lying coral atoll of about 40 islands surrounding a lagoon of about 388 square miles. When they returned home on October 1, 1980, they could live on only 815.33 acres (43 percent). During their absence 43 atomic weapons tests had so contaminated the remaining 949.8 acres (49 percent) with radioactivity that they were uninhabitable. And the tests had vaporized 154.36 acres (8 percent). Vaporization included the disappearance of the island of Elugelab, creating a two-mile-wide crater.

## A Wake-up Call Amidst *The Times* Re-Appraisal of Its Management Policies

A huge outcry followed the revelation of a breach of reporting ethics by a single individual when *The Times*, in mid-2003, exposed the plagia-

rism and fraud committed by its African-American reporter, Jayson Blair. Yet the issues raised in this book are far more pervasive and more importantly condoned and institutionalized as part of media management policies and practices. This investigation serves as a wake-up call for journalists of today and tomorrow to other kinds of structural flaws at *The Times* during an earlier era:

- cultural blinders that shut out coverage of the plight of uprooted and irradiated islanders,
- agreeing to conflicts of interest by news editorial personnel, such as Laurence's receiving government pay while working as a reporter,
- uncritically accepting U.S. government secrecy,
- echoing without outside evaluation of the government's propagandistic labeling such as "humanized" H-Bombs,
- withholding disclosure of material facts about the longevity and hazards of radiation and radioactivity, as are detailed in Chapters 3 and 9.

As a counterpoint to the lack of supervision by *The Times* of an individual in 2003, the investigation laid out in this volume alerts newsmen to overcome institutional flaws by paying more attention to the disproportionate racial and cultural victimization resulting from some U.S. policies abroad and then to develop newsgathering initiatives to spotlight that victimization, especially when groups like Pacific Islanders are numerically small or their marginalization is pronounced.

Also as a counterpoint to *The Times* re-appraisal of individual reporters like Blair, this volume alerts newsmen to overcome institutional flaws by establishing a systematic audit of how stories are selected to be covered, where they are placed in the paper and what is being omitted or obscured. For example, in covering the Pacific nuclear tests and their aftermath, *The Times* framed numerous Page 1 articles, often with illustrations, to emphasize U.S. technological prowess, but at moments politically embarrassing to the U.S. government relegated other announced tests to back-of-the-paper nuggets with minuscule headlines. As the United States in 1951 escalated from atomic to hydrogen weapons so unpredictably powerful that they had to be tested in remote islands, rather than on the North American continent, *The Times* demonstrated a lack of news-gathering enterprise on an issue of epochal significance to the public—the effect of atmospheric nuclear tests on Pacific Islanders and their environment. *The Times* neglected to seek timely information on the accu-



rate number and yield of the Pacific tests being conducted or to consider why such information was being withheld by the government. Thus, as is recommended in Chapter 11, *The Times* re-appraisal of its post-Blair management policies and practices should be expanded to consider its own institutional flaws skewing past and current nuclear-related coverage.

## How *The Times* Pulled Off Its Central Role as Atom Booster

The prestige of *The Times* was highly significant for the government that was seeking to channel first-time-ever public attitudes about the atomic bombs it was developing and planning to use in World War II. Scholars studying propaganda had by then learned that persons are more readily persuaded by those held in positive esteem. An even more fundamental principle for effective persuasion, as described by early communication scholar Norman John Powell, was to use “propaganda that does not look like propaganda.” Hence, the government benefited by having presented as news in a pre-eminent news outlet, its version of the effects of the atomic age that minimized or denied health and environmental hazards of radiation.<sup>20</sup>

The aid given by *The Times* to the government’s cover-up and deception about the radioactive effects of atomic weapons came at critical moments in which the United States wanted to control the images and descriptions of historic events. For example, Laurence was given by the government exclusive access to eyewitness the A-bombing of Nagasaki. His account provided unique, first-hand descriptions that buttressed the U.S. government policy position at a crucial moment in the formation of public opinion by justifying President Truman’s decision to drop the second A-bomb, a decision that remains controversial today. In his play-by-play chronology of the flight, Laurence tugs at the readers’ emotions—a standard propaganda technique.<sup>21</sup> He made no mention of radiation from the bomb.

By giving him such privileged and exclusive access, the U.S. government had bestowed upon Laurence what social scientist Joseph Klapper had by then described as “a monopoly propaganda position,” meaning propaganda that is unopposed. Klapper called this monopoly propaganda “one of the most successful, if not *the* most powerful” condition for successful persuasion.<sup>22</sup>

This “monopoly propaganda position” was crucial in Laurence’s communiqués for the War Department and *The Times* own articles announcing the A-bombing of Hiroshima and Nagasaki. Conspicuous about these articles was their silence on the A-bomb’s unique energy of radiation, a silence that copied the position of the U.S. government, as detailed in Chapter 3. Instead of highlighting radiation as the defining feature of atomic weapons, *Timesmen* used the vocabulary of conventional weapons—20,000 tons of TNT—laced with flowery superlatives of the superhuman or supernatural. News Zero about radiation and radioactivity created a black hole of unawareness. Decision-makers, opinion-makers as well as lay readers didn’t know what they were not being told. And they didn’t know that they didn’t know.

Information about the alarming effects of radiation on Japanese survivors of two atomic bombings was tightly controlled by the U.S. occupation forces even as officials were finding high levels of it in soil samples and were investigating radiation-induced illnesses. When word of the extent of radiation from the Hiroshima bomb reached laboratories in New Mexico, “many of the scientists were horrified,” historian Richard L. Miller wrote in 1986, adding: “The findings at the bomb sites, however, were incontrovertable [sic]: In the long run, the radiation from the bomb was more significant than the blast or thermal effects.”<sup>23</sup>

Earlier the issues of bias, omission, placement, and emphasis have been mentioned; they can be twisted into techniques of propaganda. But outright denial is also an indispensable part of any propaganda tool kit. In the weeks after the obliteration of Hiroshima, *The Times* published stories denying the persistence of radiation in that city, based on Laurence’s report from the Trinity site in New Mexico and *Times* articles from Japan. And it joined the government in suppressing information on the radiation sickness of survivors there. Denying or minimizing the presence of radiation was necessary to deflect or subdue opposition to future tests of the bomb that was then a U.S. monopoly.

Just 15 days after publishing Laurence’s exclusive about the A-bombing of Nagasaki, *The Times* began publishing a ten-part series that Laurence wrote—and government officials edited—to chronicle the making of the atomic bomb and explain how it was constructed. One of Laurence’s major assignments for the U.S. government, this series would not be a *Times* exclusive. Instead it was distributed free of charge by *The Times* on behalf of the government to newspapers throughout the country.

Later, *The Times* reproduced the series as a pamphlet for schoolchildren and adult readers.

In this series, Laurence barely mentioned the A-bomb's defining feature of radiation. For example, as detailed in Chapter 3, of 322 paragraphs comprising Laurence's widely distributed series, only four mention radiation. In this series, Laurence gives a vivid play-by-play of how scientists cracked the secrets of nature to produce a self-sustaining chain reaction of matter-to-energy transformations that led to producing an A-bomb. But besides obscuring the significance of radiation, Laurence neglected to tell readers that once such a chain reaction began, it could not be re-chained. This irreversibility has resulted in today's voluminous and hazardous nuclear waste, which will be radioactive for years, if not millennia. Thus, from the dawn of the atomic age, *The Times* participated in and followed uncritically the U.S. government information policy giving minimal attention to, if not outright denials of, radiation and the irreversibility of chain reactions.

Core reasons for the government's policy of denying or minimizing radiation were fear of liability for personal injury and property damage and fear of adverse publicity that might prompt opposition to testing as well as some genuine national security concerns, as documented in Chapters 3 and 6. The fear of liability was justified. The government officials learned of that risk soon after detonation of the first experimental weapon in New Mexico. Then, the Alamogordo Air Base commander received lawsuits from distressed ranchers whose cattle had been exposed to radioactive dust, lost their hair and developed blisters from that Trinity shot on July 16, 1945.<sup>24</sup> The suits were quietly settled.

By 1949, the U.S. atomic monopoly was broken when the Soviet Union detonated its first atomic device, 20 years earlier than Laurence had predicted. By 1952 at Enewetak, U.S. officials detonated their first full-fledged hydrogen weapon, by far their most destructive device to date and one with an explosive force 693 times greater than the weapon that had devastated Hiroshima. By then the Soviets also had an H-bomb.

## **Media Frames: Constructing the Bomb in Their Heads**

The propaganda work that *The Times* performed for the government is significant when assessed with the academic concept of framing, which is considered as a construction of social reality. Media framing—or press bias—of the coverage of the early atomic-bomb events studied here may

be considered especially pertinent because few nuclear-related pictures then existed in readers' heads or could even be imagined before President Truman announced for the first time the exploding of an atomic bomb.

Frames serve as a link between the messages conveyed in the news and the cognitive elements in the minds of the readers. Framing an issue or topic predetermines the information that is emphasized—or omitted—for readers when they form “the pictures in their heads” that were identified as early as 1922 by Walter Lippmann. A long-time journalist, Lippmann had early on spotlighted the increasingly significant role of the media in disseminating news about events and places outside of people's direct experience or knowledge in the more complex modern world.<sup>25</sup>

Lippmann's early “pictures in their heads” concept was the seed for what was subsequently refined into the full-blown theory known as agenda-setting. This press theory has been described as “The mass media are not always successful in telling us what to think but are stunningly successful in telling us what to think *about*.”<sup>26</sup> However, scholars have largely overlooked studying reverse agenda-setting—or what the media fail to tell us what to think about at all.

The issues that people do think *about* are also influenced by the way they are framed. The more specific concept of framing of an issue or topic centers around the definition offered by sociology professor Todd Gitlin: “Media frames are persistent patterns of cognition, interpretation, and presentation, of selection, emphasis, and exclusion, by which symbol-handlers routinely organize discourse, whether verbal or visual.” Gitlin also discussed their impact. He said media frames, “largely unspoken and unacknowledged, organize the world both for journalists who report it and, in some important ways, for those who rely on their reports.”<sup>27</sup> Experimental studies have demonstrated that the way an issue is framed is significant.<sup>28</sup> Thus, *The Times*' misframing or mischaracterization of key topics before and during the Cold War was significant then—and remains so today.

## **Killing Us Softly: The Casualties from Testing**

The impact of the Pacific nuclear tests continues to unfold today. It is, as the phrase goes, history still in the making. Since Laurence first penned his prophecy in 1945 that “the world will not be the same after the day of the big event,” the planet has been transformed irreversibly. By the 1950s, instead of sparking a paradise of plenty, radioactivity produced by

atmospheric tests in the Pacific Islands wafted within a week to San Francisco, 4,000 miles away.<sup>29</sup> By 1962, each person on earth had become touched by radioactive particles from atomic bombs resulting from detonations by the U.S., British, French and Soviet governments.<sup>30</sup>

And each inhabitant on earth will be exposed for what researchers describe as “centuries to come.” They estimate that fallout through infinity from atmospheric nuclear testing conducted by all nations will cause an estimated three million cancer fatalities.

The three million cancer fatalities may be compared in terms of those used daily in today’s news reports from Iraq: U.S. battlefield deaths. Researchers calculate these nuclear-caused cancer fatalities represent nearly five times the number of U.S. servicemen killed in World Wars I and II, the Korean War, the Vietnam War and the first Gulf War combined.

In addition, these researchers indicate, due to fallout from U.S. atmospheric testing alone from 1945 to 1962, with the vastly more powerful high-yield detonations occurring in the Pacific, up to an estimated 800,000 people in the United States and worldwide have died or will die prematurely from fatal cancer attributable to these tests. That number is also more than the 617,389 U.S. military personnel killed in all wars combined since World War I.<sup>31</sup>

In the Pacific Islands, the delayed health effects of the radioactivity resulting from the nuclear weapons tests are much higher than originally expected, a point on which both U.S. and Marshallese officials agree.<sup>32</sup> Many kinds of cancer take twenty to forty years to become apparent. In 1987, as an alternative to contesting court cases brought by the people of 14 Marshall Islands seeking millions in damages, the U.S. government agreed to establish a \$150 million trust fund “to provide, in perpetuity, a means to address past, present and future consequences of the Nuclear Testing Program.” The fund compensates aggrieved islanders for personal and property damages through the adjudication of a three-member administrative unit called the Nuclear Claims Tribunal. Payments are now made from this trust fund for a list of 35 diseases or disabilities that are presumed without need of additional proof to have resulted from the U.S. nuclear weapons testing program. An obscure document from the Nuclear Claims Tribunal lists the 35 conditions presumed to have resulted from the U.S. nuclear weapons tests there from 1946 to 1958. The full list is included in Chapter 10.

Excerpts of these medical conditions and compensatory amounts follow:

Leukemia (other than chronic lymphocytic leukemia)	\$125,000
Cancer of the thyroid	
•if recurrent or requires multiple surgical and/or ablation	75,000
•if non-recurrent or does not require multiple treatment	50,000
Cancer of the breast	
•if recurrent or requires mastectomy	100,000
•if non-recurrent or requires lumpectomy	75,000
Cancer of the pharynx	100,000
Cancer of the esophagus	125,000
Cancer of the ovary	125,000
Severe growth retardation due to thyroid damage	100,000
Cancer of the central nervous system	125,000
Cancer of the bone	125,000

For these 35 presumed radiation-caused medical conditions, the Tribunal, as of December 31, 2002, has paid \$79.44 million to 1,808 awardees. But 46 percent of these islanders died before being fully paid for their nuclear-related injuries and millions of dollars in property awards are unpaid because the trust fund is now nearly depleted.<sup>33</sup>

Beyond the cost in lives, health and still-radioactive property is the cost in dollars. Researcher Stephen I. Schwartz calculated that the United States has already spent almost \$5.5 trillion—in constant 1996 dollars—on nuclear weapons and weapons-related programs from 1940 thorough 1996. This figure amounts to almost 11 percent of all federal government expenditures during this period—an average of nearly \$98 billion a year or \$21,646 for every person living in the United States at the beginning of 1998.<sup>34</sup>

Beyond the cost both in lives and in dollars has been the cost and consequences of secrecy. These researchers concluded that “the nuclear secrecy system has had adverse implications for informed congressional and public debate over nuclear policy, constitutional guarantees, government accountability, and civilian control over the military.” They found the public interest could have been better protected by more rigorous congressional oversight and better executive branch internal controls.

However, they did not assess or even mention the performance of the free press in permitting this nuclear secrecy system to function for so many decades, even though journalists and others often consider the news media as an institution significant for democratic government. Instead, it was years of political pressure by citizens’ groups, public interest organizations,

environmentalists and historians that these researchers say prompted, in 1993, the Clinton Administration to make the first comprehensive review of nuclear secrecy since 1946 and to declassify and make public many thousands of documents.<sup>35</sup> To their list needs to be added the dogged reporting of and many Freedom of Information Act requests written by Eileen Welsome in piecing together for the *Albuquerque Tribune* the Pulitzer Prize-winning account of human radiation experiments conducted by the government from the 1940s to 1970s.

In surveying this age of nuclear terror, the World Court at The Hague noted in 1996 that nuclear weapons have the potential to destroy all civilization and the entire ecosystem of the planet, to damage the future environment and to cause genetic defects and illness in future generations.<sup>36</sup> In explaining the atom's five-decade transformation of the planet, World Court President Mohammed Bedjaoui of Algeria elaborated:

With nuclear weapons, humanity is living on a kind of suspended sentence. For half a century now these terrifying weapons of mass destruction have formed part of the human condition. ... Fear has gradually become man's first nature. His life on earth has taken on the aspect of ... "a long nocturnal journey," like a nightmare whose end he can not yet foresee.<sup>37</sup>

Another grim indicator of the atomic age was expressed in a 1980 Congressional report with the alarming title of "*The Forgotten Guinea Pigs*": *A Report on Health Effects of Low-Level Radiation Sustained as a Result of the Nuclear Testing Program Conducted by the United States Government*. As it had done so often in the past the members of Congress slighted in that report the Pacific Islanders, those nearest to the most destructive of all U.S. nuclear tests whose homelands served as launching sites. In only a footnote the House oversight subcommittee included the Pacific Islanders in its conclusion.

In yet another example of News Zero, *The Times* overlooked that meager footnote and ignored the Islanders' contributions altogether in its story on the committee report—thought to be the first Congressional study in twenty years on the effects of the testing.

Although it ignored the islanders, *The Times* story, relegated to page 14, did include the conclusion reported in the subcommittee's findings: "The greatest irony of our atmospheric nuclear testing program is that the only victims of U.S. nuclear arms since World War II have been our own people."<sup>38</sup>

## CHAPTER 1

# *The New York Times as Propaganda Organ*

## *What Made It the Ideal Outlet*

To sell the bomb, the U.S. government needed *The Times* like no other news outlet in the pre-television era. And *The Times* willingly obliged.

*The Times* was hardly the nation's biggest newspaper then in terms of circulation; until the end of World War II in 1945, it had fewer than half a million readers on weekdays and 844,711 on Sundays. But rather than zeroing in on mass quantities of readers, government officials handpicked *The Times* because of the quality of its readers. A half-century in the making, *The Times* had by then become recognized as a "prestige paper." This was one that communication scholar Ithiel de Sola Pool has described as a newspaper serving as the nation's "organ of elite opinion" because it was read by such influentials as diplomats, policymakers, business leaders and other journalists.<sup>1</sup> By 1940, the importance of these elite readers in the pre-television era was underscored by researchers who described them as *opinion leaders* because they were often consulted by those around them, thus paving the way for them to persuade the masses.

*The Times* helped to perpetuate this prestige-paper image by publishing accolades made by those inside and outside of journalism who described this New York daily as the world's greatest newspaper, "one of the great newspapers in journalistic history,"<sup>2</sup> and a great organ guided by "one of America's foremost molders of public opinion."<sup>3</sup>

But, significantly, *The Times* also earned its prestige-paper image by making decisions that produced news that mattered, in contrast to today's news you can use. During World War II, for example, when newsprint was rationed and in short supply, *The*



*Times* management shrewdly limited the size of advertisements—and hence its revenues—so that it might print more eagerly sought wartime news.<sup>4</sup>

From 1945 on, when the U.S. officials handpicked *The Times* to begin dispensing “propaganda that does not look like propaganda” through the end of the Pacific nuclear weapons tests in 1962, *The Times* staff was the largest of any newspaper in the world. That staff included the largest Washington news bureau and the largest foreign staff of any single newspaper.<sup>5</sup>

Rather than the mere number of staff members, however, the privileged position of *The Times* also rested on the quality of its newspeople. Over the preceding half-century, *The Times* had attached primary importance to newsgathering. As early as World War I, *The Times* had built its national and international reputation as a newspaper of record, one that its writers said its publisher thought obliged it “to present a complete record of its time.”<sup>6</sup> *Times* coverage of World War I was heralded as a textbook classic or “storybook journalism.”<sup>7</sup>

By 1927, *The Times* was unique in beginning to shift from general-assignment reporters to specialized reporters and editors. Science was its first area of specialization for treatment in news and interpretation. Then came military affairs; then a medical-news editor. This shift proved to be significant for subsequent *Times* coverage of the emerging atomic age. Thus, with this record of reporting, readers readily expected *The Times* to serve as an unobstructed window on a world few could even imagine.

Undergirding this record of reporting was a half-century of principles and practices of *The Times* that led to setting a new standard for quality newspapers at home and abroad. These principles can be used to measure *Times* coverage of the atomic age. Sources for this foundation—and deviations from it—are those histories sponsored or authorized by *The Times*, which are described in the Appendix, as well as in articles in the newspaper. The chapter ends with factors that may have led *The Times* to toe the U.S. government line so assiduously in its coverage of the dawn of the atomic age in Asia and the Pacific.

## Mapping the Newspaper of the Future

The global pre-eminence of *The Times* at the beginning of the atomic age was a far cry from the state of the near-bankrupt daily that Adolph S. Ochs had purchased a half-century earlier. The newspaper was losing \$1,000 a day when he bought it in 1896 and was \$300,000 in debt.<sup>8</sup>

Ochs was near-bankrupt too. But financed with \$75,000 he had borrowed and by the issuing of stocks and bonds, the 38-year-old publisher of a little-known Tennessee newspaper assumed editorial control of *The New York Times* on August 18, 1896. The financing was helped by a friendly letter from President Grover Cleveland, which had smoothed the way for Ochs to meet some top financiers of Wall Street. Ochs was to assume financial control when the newspaper turned a profit for three consecutive years. He succeeded. On July 1, 1900, Ochs became owner of the majority interest in the company.<sup>9</sup> *The Times* went on to show a profit each year through 1962.<sup>10</sup>

How did a nearly bankrupt daily newspaper get transformed into a news source that was so good that, when it came time 40 years later to sell the public on the bomb, the government just had to have it as its lead advocate?

The answer was embodied in Ochs. On the surface, he seemed a misfit to produce a newspaper transformation that would attract the elites of the nation, even the world. A dropout from school, he was the oldest of six children of German Jewish intellectuals forced to flee Europe before the revolution of 1848. When the family fell upon hard times, Ochs skipped school and began his newspaper career as an office boy and printer's devil at the age of 11. He did odd jobs for those in the composing room of the *Knoxville* (Tenn.) *Chronicle* and later worked in the newsroom of another newspaper as a reporter and in the business office. Thus, early on, he received his journalistic training in all three facets of newspapering—news reporting, business and production—and he had learned the trade from the ground up.

Besides this practical background, however, Ochs had a vision. Even before arriving in New York, Ochs had begun mapping the newspaper of the future. In 1891, in an address to the National Editorial Association, Ochs "put his finger on the great change American journalism was undergoing," *Timesmen* later wrote. Up to

then, newspapers had been “essentially political and essentially personal; they were the platforms on which great editors could display their personal brilliance and news columns were biased and argumentative as the editorial page.” Now that was about to change, Ochs told the assembled editors: “The day of the organ, if not past, is rapidly passing. A journal conducted as a newspaper (with the emphasis on the news) is the newspaper of the future.” By the end of 1896, Ochs had implemented so many of the changes he had envisioned in the newspaper-of-the-future that he had in place a scaled-down version of *The Times* that was being published four decades later.<sup>11</sup> In sum, Ochs saw information as a commodity that provided an essential raw material for a nation moving toward industrialization, internationalism and expansionism.

Ochs died in 1935. His tenets were later reaffirmed by his two immediate successors during the nuclear-testing period: Arthur Hays Sulzberger and Orvil Dryfoos. These two generations of publishers “made a great newspaper greater,” according to J.R. Wiggins, *Washington Post* ex-editor who was then U.S. representative to the United Nations, as quoted in *The Times*.<sup>12</sup>

Ochs, in order to jumpstart the success of *The Times* and to turn a profit on his near-bankrupt daily, made a daring promise to his readers. On August 19, 1896, the day after he took control, *The Times* published his “salutatory”—a sort of opening-day mission statement. It read that the “earnest aim” of *The Times* included these four guiding principles:

Principle 1: “Give the news, all the news.”

Principle 2: Make *The Times* columns a forum for considering all questions of public importance.

Principle 3: Invite intelligent discussion from all shades of opinion.

Principle 4: “Give the news impartially, without fear or favor.”<sup>13</sup>

His pronouncements for complete, impartial and trustworthy news came to set a new standard and new direction for journalism.<sup>14</sup> These four principles were not always adhered to, and the sometimes yawning gaps have been the subject of books and articles on media criticism. But the point here is not simply to measure its adherence to its own standard but also to realize that however much *The Times*

did or did not live up to the standards, it managed to do so in the minds of its readers, giving it enormous clout to shape public opinion.

### Principle 1: “Give the news, all the news”

Ochs promised to try to furnish “all the news” in a high-standard, dignified newspaper that would contrast significantly from his greatest competitors in New York, the sensationalist “yellow journals” of Joseph Pulitzer’s *World* and William Randolph Hearst’s *Journal*. And he would sell his paper at the same price, a penny.

His strategy worked.<sup>15</sup> Circulation shot up, almost tripling in one year for a nearly unparalleled increase in U.S. newspaper history. And advertising shot up too. By 1900, the survival and success of *The Times* was assured.<sup>16</sup>

Two months after taking control, in one of his first steps to implement his give-all-the-news principle and to set his newspaper even further apart from his rivals, Ochs adopted on October 25, 1896, the motto “All the News That’s Fit to Print.”<sup>17</sup> Ochs wrote that the slogan was initially “made sport of and ridiculed” by the “wiseacres of journalism” who were predicting *The Times* early failure. But that misjudgment proved beneficial to *The Times*, he wrote, because it gave *The Times* no competition in covering the business and financial field it began to focus on.<sup>18</sup> While that motto survives today on its front page, so does the scorn of critics and the keen admiration for the standard it embodies.

The term *completeness* was included in a *Times* description of Ochs’ fundamental code of integrity, from which the newspaper claimed he never strayed.<sup>19</sup> This claim of completeness was often echoed in journalism textbooks, histories of journalism,<sup>20</sup> and in statements made by persons of influence that were in turn published in *The Times*.<sup>21</sup> But wasn’t all the news just too much? *The Times* early on said no. Historian Elmer Davis explained its rationale:

Some of its readers complain that it is too large, but nobody complains that it prints too much news about the things in which he is interested. The man whose chief interest is in the stock market may think there is too much news about sports, and vice versa; but there is not too much financial news for the investor, nor too much sporting news for the follower of sports.

When asked what news is unfit to print, Ochs is quoted as replying, "What's untrue." Ochs' reply failed to apply to other papers of the period, *The Times* wrote.<sup>22</sup>

Besides the factual story that it valued above all else, however, *The Times* also expanded the definition of news by presenting authentic color and human interest in any situation in the news and by carrying so much news that appealed to Wall Street and business readers that soon it became known as the "Business Bible."<sup>23</sup>

*The Times* claim of completeness was made plausible by the sheer volume of each day's newspaper. Because it published more advertising than papers in the world's other major cities, *The Times* had more space to print more news<sup>24</sup> and more revenue to finance newsgathering.

Giving "all the news" meant to Ochs that the daily was to be "the accepted newspaper of record," *The Times* wrote, noting, "It was the obligation of a newspaper, he thought, to present a complete record of its time."<sup>25</sup>

This process was described as "the documentation of current history."<sup>26</sup> By 1930, *Times* historian Meyer Berger notes, because other newspapers could not afford imitation, being a newspaper of record had become "almost solely a Times institution."<sup>27</sup> Sulzberger, who had become publisher upon Ochs' death in 1935, expanded the newspaper-of-record concept to publication of the words of important figures on both sides of World War II.<sup>28</sup>

The paper's claim to be the newspaper of record was no mere public relations ploy. The most powerful men in the country long understood this as fact. President Kennedy said it best in 1960. Shortly after the failed Bay of Pigs invasion, he complained to *Times* managing editor Turner Catledge about how much information *The Times* had published before the U.S. operation. When Catledge reminded him that essentially the same details had been published by other newspapers, Kennedy retorted, "But it was not news until it appeared in *The Times*."<sup>29</sup>

## **Principle 2: Be a forum for all questions of public importance**

To broaden the forums of discussion of important public issues, Ochs first revamped some sections of *The Times* and then developed new sections, all of which are still components of *The Times*. In the mid-1930s the Sunday feature section was re-configured as “The News of the Week in Review” and was tied more closely to current events.<sup>30</sup> By 1958, *The New York Times Magazine* for the first time carried more lines of advertising than any other of the nation’s magazines,<sup>31</sup> which in turn provided the revenue that financed more space for newsfeatures and photographs. Thus, during the 1945-62 period being studied, the period that was central to the age of the bomb, *The Times* had at its disposal much space for news and a variety of formats for offering it.

## **Principle 3: “Invite intelligent discussion from all shades of opinion”**

*The Times* described Ochs as a man who enjoyed a clash of ideas. Soon after taking control of *The Times* in 1896, Ochs began publishing an unprecedented number of letters to the editor that disagreed with the published editorials of the newspaper.<sup>32</sup> Opening up outlets for readers, yet another practice of most newspapers today, had generally been overlooked by other news outlets.

During World War II, *The Times* adhered to its principle of giving all shades of opinion and all sides of a story when they were available. As Berger notes, *The Times* “printed all the war communiqués, both Allied and Axis, right through the war even when they conflicted outrageously, as they often did, and let the reader judge for himself which was true.”<sup>33</sup>

## **Principle 4: “Give the news impartially, without fear or favor”**

As much as completeness, *The Times* touted the impartiality and courage of its coverage. Ochs’ words in Principle 4 are etched above the metallic bust of Ochs that has stood in the lobby of *The*

*Times* building.<sup>34</sup> The quintessence of Ochs' credo—without fear or favor—has been used as the title for two books about *The Times*.<sup>35</sup>

To maintain impartiality, Ochs organized *The Times* as “an integrated enterprise” but with definite compartmentalization between departments so that neither ads nor editorials nor columnists influenced the news columns.<sup>36</sup> *The Times* fostered the early perception it was independent from government and political pressures. As *Times*man-turned-historian Harrison Salisbury explains:

To Mr. Ochs, independence meant that no businessman, no advertiser, no “interest” and no politician could buy *The Times* or its influence. He did not permit his news pages to be used to curry favor with the great New York department stores or Tammany Hall.<sup>37</sup>

Journalists and persons of influence often echoed *The Times* credo of impartiality and their words were published in *The Times*.<sup>38</sup> Ochs is also credited with actively leading the mission of establishing a code of ethics adopted by U.S. journalism. He viewed *The Times* as maintaining the highest standards of ethics. In 1932, Ochs wrote in a letter to his business manager, Louis Wiley, that “the high journalistic principles of *The Times*, the integrity of its news reports, the honest and fair expression of its opinions and the standard of ethics maintained in all departments ... were the cardinal principles that were announced with my first issue of *The Times*.”<sup>39</sup> In contrast with Ochs' idealist self-assessment are alternative critiques offered by scholars, which are discussed below.

Ochs' four principles carried through 40 years later to the era of the bomb. Then, implementing Ochs' principles fell to the new breed of specialized reporters and editors whom *The Times* had pioneered.

For science coverage, *The Times* hired in 1927 an engineer, Waldemar Kaempffert, to write for the Sunday paper. In 1930, William L. Laurence began reporting science for *The Times*, becoming the nation's first, full-fledged science reporter.

Joining *The Times* in 1929 was Hanson Baldwin, a U.S. Naval Academy graduate who became *The Times*'—and the nation's—first full-time journalist specializing in covering military affairs. Both Laurence and Baldwin had the ear of *The Times* top executives, thus influencing significantly the thrust of some *Times* editorials.

By the time the newspaper began covering U.S. nuclear weapons testing in 1946, Baldwin had won one Pulitzer Prize and Laurence had won two, the highest honor in U.S. journalism. Laurence's second Pulitzer Prize had been awarded for his series of articles detailing the behind-the-scenes development of the atomic bomb and his eyewitness account of the atomic bombing of Nagasaki on August 9, 1945,<sup>40</sup> the third nuclear explosion in history, which followed those in New Mexico and Hiroshima, and the one that ended World War II. Also, as the Pacific nuclear weapons testing was about to begin, *The Times* arranged for a medical doctor to join its staff. Dr. Howard A. Rusk became an associate editor to write about rehabilitation of U.S. servicemen and civilians wounded in World War II.

Despite these ideals, assets and expertise, however, this book documents in the chapters that follow that the performance of *The Times* as the newspaper of record in its coverage of the dawn of the atomic age in Japan and the Pacific failed to meet the standards it had set for itself and led others to believe it had achieved.

## **Behind the Public Principles: Kowtowing to the Powerful**

Despite the high ideals expressed in the principles announced by Ochs in 1896 and continued publicly by his successors through 1962, *The Times* histories reveal that in practice the behind-the-scenes policy of the newspaper was occasionally to withhold news even during peacetime to aid those in power or with power. These included government officials and bank executives.

Ochs' announced principle calling for fearless impartiality did not in practice mean *Times* independence from government, according to Ochs' daughter, Iphigene. She is quoted as saying that during the days of her father and of his two immediate successors—Sulzberger and Dryfoos—the publishers thought that *The Times* should support the government and in practice acted accordingly. Readers were kept in the dark about this hidden practice.

More significantly, Ochs himself wrote in a letter to a complaining subscriber in 1931 that *The Times* "so far as possible consistent with honest journalism attempts to act and support those who



are charged with responsibility for Government.” However, not until 49 years later did this letter come to light for the public’s benefit.<sup>41</sup>

During World War II, Sulzberger’s *Times* routinely withheld information because the security of the country was involved, the publisher said in the last days of the conflict. However, Sulzberger emphasized, when the war stops, then the withholding of the information should stop. He explained, “The community is adult and is entitled to the facts on which to base its judgment and form its action.”<sup>42</sup>

Despite public pronouncements of fearless independence, the histories of *The Times*, which are described in the Appendix, reveal nine cases of total or partial news suppression during peacetime through 1962.<sup>43</sup> Unfriendly literature reveals more cases.

Four cases illuminate how the suppression worked on Ochs’ *Times*. In the most celebrated case, *The Times* bowed to the wishes of President Theodore Roosevelt and others to suppress Kaiser Wilhelm II’s 1908 racist remarks made in an exclusive *Times* interview. Among the Kaiser’s racist remarks that *The Times* suppressed for 31 years, probably because they were so incendiary and so implicitly anti-Catholic and anti-Semitic, were: “The future belongs to the White Man. It does not belong to the Yellow nor the Black nor the Olive colored. It belongs to the Blond Man and it belongs to Christianity and to Protestantism. We are the only people who can save it.”<sup>44</sup> Later, in the 1920s, Ochs acknowledged suppressing information about the Teapot Dome scandal to minimize embarrassment for the federal administration.<sup>45</sup> In the 1930s, by withholding hard facts about a pending bank failure, *The Times* suppressed exclusive economic news of importance to the public when Ochs thought publication would do more public harm than good; angry depositors who lost their savings thought otherwise. Ochs also gave in to New York Mayor Jimmy Walker and suppressed a story so as to avoid damaging the city’s chances of borrowing \$60 million; three weeks later the news broke anyway.<sup>46</sup>

## NewsSuppressions During the U.S. Pacific Nuclear Testing Period

Five other illuminating cases of news suppression occurred on the Sulzberger-Dryfoos' *Times* during the period when U.S. Pacific nuclear weapons tests were escalating in yield and in number. These five cases are detailed below so as to shed light on overall *Times*-U.S. government relations when the most destructive tests in U.S. history were being detonated amidst an escalating Cold War with the Soviet Union and its allies.

In the first case, in 1955, *The Times* suppressed President Franklin D. Roosevelt's anti-Semitic remarks. Ten years after the Yalta Conference in 1945 between President Roosevelt, Soviet leader Joseph Stalin and British leader Winston Churchill, Secretary of State John Foster Dulles had the official record declassified and it was published by *The Times* on March 17, 1955. But deleted in the material released to the press was the cutting remark made by President Roosevelt that he would like to make a concession to King Ibn Saud of Saudi Arabia and send to him "the six million Jews in the United States." *Times* senior editor Turner Catledge discovered this quote that had been censored because of a notation written by Undersecretary of State Walter Bedell Smith: "Delete this. It is not pertinent history." Dulles asked Catledge to delete the passage for the same reason. *The Times* suppressed publication.<sup>47</sup>

Four years later, in 1959, came the second case of news suppression, this one withholding information about the results of the top-secret Project Argus. Described by scientists as "the greatest scientific experiment ever conducted," the project caused some to fear that at least theoretically the detonations could blow up the planet. For Project Argus, the U.S. Navy fired three nuclear-tipped rockets 300 miles above the earth in an isolated portion of the South Atlantic in August and September 1958. The high-altitude nuclear shots threw "a thin curtain of radiation around the earth," *The Times* reported, enveloping "almost the entire inhabited portion of the globe."<sup>48</sup> But *The Times* held up publication of the results of Argus for seven months. The newspaper had waited for U.S. officials to release the results but these were delayed because military leaders feared they would reveal the secret data-collecting operations of U.S. satellites and ground stations throughout the world. While *The*

*Times* was withholding information, the Soviets had detected the experiment from observation posts, scientists worldwide were compiling results of what happened and some material about it was presented by specialists at an American Astronautical Society session in New York. In an Argus-related editorial a month after the story broke, *The Times* acknowledged its “trying experience of sitting for many months on an item of news.”<sup>49</sup>

Just as the Argus story was unfolding, the third case of news suppression occurred at *The Times*. From 1958 to 1960, Baldwin and Washington bureau chief Arthur Krock knew about the high-flying U-2 spy planes that the Central Intelligence Agency was secretly using to fly surveillance missions over the Soviet Union. The Soviets knew about the spy planes from the beginning of the overflights but, unable to shoot them down, they made no public fuss. Without checking with the top editors and to avoid embarrassing the Soviets, Baldwin and Krock suppressed information about these planes for at least two years.<sup>50</sup> But, on May 1, 1960, one “spy-in-the-sky” U-2 piloted by CIA contract employee Francis Powers was shot down just two weeks before the leaders of the United States, Great Britain, France and the Soviet Union were to meet in Paris to discuss problems affecting world peace. The result: a diplomatic fiasco.<sup>51</sup> Earlier publication by *The Times* about the secret flights might have prevented the diplomatic crisis by prompting suspension of flights, *Times*man-turned-historian Harrison Salisbury observed in 1980. He added that neither Baldwin nor Krock could “see a contradiction in the fact that the Russians knew the operation was in progress and could ‘blow it’ anytime they desired while the American public was funding it in ignorance.”<sup>52</sup>

In a fourth example, semi-suppression of the news of the Bay of Pigs Invasion occurred. *The Times*, in 1961, suppressed confirmed reports about the imminence of and CIA involvement in the ill-fated invasion of exiles into Fidel Castro’s Cuba just 90 miles off the U.S. coast, or “only eight jet minutes from Florida,” as Presidential candidate John F. Kennedy remarked.<sup>53</sup> Only the U.S. public was still in the dark, as historian Michael Beschloss pointed out:

Newspaper leaks should have shown the government that the project was no longer secret, but the CIA and the White

House once again tried to plug the leaks by asking publishers not to publish.<sup>54</sup>

*Times* publisher-to-be Dryfoos and editor Turner Catledge bowed to pleas from the CIA and from a direct, personal plea to Dryfoos from President Kennedy.<sup>55</sup> The result was what Salisbury described as one of the most remarkable Page 1 make-overs in *Times* history when, on April 6, 1961, Dryfoos and Catledge ordered senior desk editors to minimize the story and the CIA's involvement. After the Bay of Pigs debacle, on September 13, 1962, President Kennedy ignored his earlier plea when he met Dryfoos at the White House and said: "I wish you had run everything on Cuba. I am just sorry you didn't tell it at the time."<sup>56</sup>

Finally, in a fifth and illuminating example, just as the U.S. Pacific nuclear weapons tests were about to end in 1962, *The Times* held news of Soviet missiles in Cuba. In September 1962, U-2 spy planes photographed the first concrete evidence of Soviet missiles in Cuba,<sup>57</sup> a fact learned the next month by *Times* Washington bureau chief James Reston. In reaction, Kennedy telephoned Reston and then Dryfoos, asking them to hold up publication for 24 hours so he would have time to complete preparations to meet the Soviet threat and to make a television address the next evening.<sup>58</sup> Dryfoos agreed to hold the article. Three days later, the president wrote Dryfoos, thanking him and *The Times* for withholding the news, thus performing "an important service in the national interest."<sup>59</sup>

These documented examples of withholding the news in peacetime provide critical insight into the performance of *The Times* when the stakes were so much higher in its atomic-bomb coverage.

## Influences on *Times* Coverage at the Dawn of the Atomic Age

Investigation for this book could not pinpoint why *The Times* toed the U.S. government line so faithfully at the dawn of the atomic age, including its virtually non-existent coverage of radiation emanating from the first Ground Zeroes at Trinity, Hiroshima and Nagasaki and in the Pacific. *The Times* itself was unable to explain why it had covered the U.S. Pacific nuclear weapons tests as it did. In response to a request to discuss this question for this investiga-

tion, *The Times* indicated that those making decisions at the newspaper in the 1946-62 period had either died or could not be located and thus the newspaper was unable to explain its coverage during this earlier period.<sup>60</sup>

However, scholars offer some insights about influences that shape news content. In contrast to the ideals expressed by Ochs, communication scholars Pamela Shoemaker and Stephen Reese describe five levels of analysis that illuminate the shaping of news content. The scholars illustrate these levels with a diagram of a dartboard with a bull's-eye center representing the individual journalist like Laurence or Baldwin. The next ring around the bulls-eye represents the media-routines level, then the organizational level, the extra-media level (such as advertisers or government), and the ideological level on the outer rim.<sup>61</sup>

Edward S. Herman and Noam Chomsky have devised a propaganda model in which the U.S. media exist to deliver their readers/viewers/listeners to their advertisers and, as such, articulate and reinforce the reigning beliefs of the ruling class. One of those reigning beliefs is that "anticommunism" serves as "a national religion and control mechanism."<sup>62</sup>

Regardless of the accuracy of scholarly critiques, *The Times* did succeed in convincing people that its version of events was, in fact, impartially provided and comprehensive. At the dawn of the atomic age and throughout the 16-year period of U.S. Pacific nuclear weapons testing, *The Times* was acknowledged to be in a class by itself in newspaperdom, serving primarily as the world's newspaper of record. Due to the prevailing perception of *The Times* for unrivaled impartiality and thoroughness, based in part on the newspaper's own touting of its principles, what appeared in that newspaper—or did not appear—often determined in the pre-television age what images of events were generated in the minds of readers about the atomic age and what they came to know about radioactivity resulting from nuclear weapons use in Japan and the Pacific.

Despite its high reputation for independence and completeness, histories of *The Times* and its own newspaper articles reveal that in at least four instances during Ochs' reign and in at least five instances during the Pacific nuclear testing period, the newspaper bowed to pressures from the powerful to withhold news from readers.

Largely unbeknownst to its readers, these documented examples of news suppression or semi-suppression during peacetime by *The Times* to aid those in power provide a baseline for its strong acceptance of the U.S. information policies at the dawn of the atomic age. It was during this age that *The Times*, more than any other newspaper, was so significant in providing the first images of this revolutionary weapon to the world. As Chapter 3 documents, *The Times* in its News-Zero coverage of radioactivity resulting from the Ground Zeroes at Trinity and in Japan and the Pacific uncritically toed the U.S. government line from the very beginning of the atomic age.

## CHAPTER 2

# *Conflicts of Interest Behind and Beyond the “Atomic Curtain”*

## *The Bomb as a “Second Coming of Christ Yarn”*

A good 300 years before the birth of the atomic bomb, the watchdog role of the press began to be seen as vital to informing the public. In 1644, for example, an English publication called *Spie* announced that it would discover “the usual cheats in the great game of the Kingdome. For that we would have to go undercover,” the Project for Excellence in Journalism reports. This feisty tradition of making the workings of government more visible to those it governs flowed across the Atlantic Ocean to inspire colonists to speak out against an arbitrary English king and to help spark the American Revolution against him and his government.

It was this watchdog role that partly prompted the press to be granted constitutional freedom by the Founding Fathers and that established “investigative reporting as one of the earliest principles that would set journalism apart from other means of communication with the public,” the Project notes. Indeed, it explains, 200 years after the American Revolution, U.S. Supreme Court Justice Hugo Black underscored the significance of the watchdog role when he wrote, “The press was protected so that it could bare the secrets of government and inform the people. Only a free and unrestrained press can effectively expose deception in government.”

Only 120 years after the American Revolution, as discussed in the previous chapter, *The New York Times* announced in 1896 high journalistic principles that implied a vigilant watchdog function by

its promises of “giving all the news that’s fit to print” and giving it “without fear or favor.” Even during the early days of the Cold War when U.S. nuclear weapons tests were in full swing in the Pacific through 1962, journalism books described the press as watching the government and acting as a Fourth Estate independent of and as significant as its legislative, judicial and executive branches. As journalist Douglass Cater asserted in 1959, “The American Fourth Estate operates as a *de facto*, quasiofficial fourth branch of government, its institutions no less important because they developed informally, indeed, haphazardly.”<sup>1</sup>

Many of the first words describing the atomic bomb to the world were drafted by William L. Laurence, the science reporter of *The Times*. But he didn’t write those words for readers of his own newspaper. Instead he wrote them for the War Department, where officials stamped them “Top Secret” and filed them in a locked safe.<sup>2</sup> Often edited by military brass, Laurence’s words months later served as War Department communiqués given worldwide distribution.<sup>3</sup> They also provided most of the material reworked for the news columns that *The Times* used in devoting ten of its 38 pages on August 7, 1945, to the development of the atomic bomb and its first use on Hiroshima.<sup>4</sup> Laurence was thus a major player in providing many text-based images, language and knowledge that first fixed and molded the meanings and perceptions of the emerging atomic age. But this major player served as a scribe writing government propaganda on a historic issue, rather than as a watchdog adhering to those high principles traditionally espoused by the press in general and *The Times* in particular.

## Laurence’s Double Pay Behind the “Atomic Curtain”

Laurence was hired by the U.S. War Department in April 1945 to work for the Manhattan Project, the super-secret mission to develop and produce an atomic bomb under the direction of U.S. Army Brigadier General Leslie Groves. Shortly before the surrender of Germany in May, General Groves secretly approached *The Times* to ask it to release Laurence to the Army to officially chronicle the making of the A-bomb. *The Times* agreed to the request, thus initi-



ating what Laurence came to call 119 days of operating behind “the Atomic Curtain.” Groves had made the arrangement directly with publisher Arthur Hays Sulzberger and Edwin James, the most senior editor; others at *The Times* were in the dark about why Laurence had soon after disappeared from the newsroom. Part of the agreement involved Laurence’s pay.<sup>5</sup> Each day the government paid Laurence \$25 and each week *The Times* paid him \$25 with his regular weekly salary of \$150 going to his wife.<sup>6</sup>

Laurence knew then that he would be receiving monies from both the newspaper and the government. However, 22 years later he wrote that he was “puzzled” at the low amount of \$25 a day from the Manhattan Project. But “I was too elated with the assignment and too thrilled with the job at hand to worry about what at the time were rather trivial things in comparison.” Even his weekly *Times* salary of \$150 was low, he groused, “considering that I was a Pulitzer Prize winner and internationally recognized as the top science reporter in this country and abroad.”<sup>7</sup>

Significantly, with the government and *The Times* simultaneously paying him, Laurence was placed in a conflict-of-interest breach of the journalists’ code of ethics in force at the time. The code of ethics of the Society of Professional Journalists at that time read: “Second employment, political involvement, holding public office, and service in community organizations should be avoided if it compromises the integrity of journalists and their employers.” More broadly, this code that set ethical standards for professional journalists stated that “the duty of journalists is to serve the truth” and that “the public’s right to know of events of public importance and interest is the overriding mission of the mass media.” The code also noted that freedom of the press “carries with it the freedom and responsibility to discuss, question and challenge actions and utterances of our government and of our public and private institutions.” This arrangement with Groves also undermined the long-standing claims made by *The Times* of impartial and independent news reporting. The newspaper did not directly disclose this double-funding arrangement to its readers when it distributed Laurence-bylined articles chronicling the birth the A-bomb and his eyewitness account of the A-bombing of Nagasaki.<sup>8</sup> Thus, Laurence’s articles gave the illusion of having been written for and

by *The Times* correspondent without fully disclosing otherwise to the readers.

In contrast to Laurence, *Times* military writer Hanson Baldwin had foreseen before World War II that he could not simultaneously serve and be paid by both *The Times* and the U.S. government. A graduate of the Naval Academy, Baldwin learned first-hand that his Naval Reserve status in the Intelligence Section could present increasing conflicts with his work for *The Times* and handicap his reporting. In 1934, he resigned from the Naval Reserve, because Naval intelligence work might prove embarrassing in foreign countries where he might be sent to report on the military developments. In a 1975 oral history, Baldwin explained his rationale:

I wouldn't mix newspaper work and intelligence work. It just isn't right or doing justice to either one....I wouldn't do any mission for them at all. I don't believe that jibes with the two objectives.<sup>9</sup>

Because of Laurence's special assignment, the top *Times* executives possessed advance and journalistically exclusive knowledge about the development and upcoming testing of the secret weapon. On July 16, 1945, less than a month before the end of World War II, the super-secret bomb dubbed Trinity was exploded at Ground Zero in Alamogordo, New Mexico, to test whether a weapon made with plutonium would work. Just three days before the Trinity shot that Laurence was privileged to eyewitness, he alerted *Times* managing editor Edwin James that events were accelerating. When the public could eventually be let in on the big event, Laurence told James, the news story would be far bigger than anyone could imagine. When the news story does break, Laurence wrote in veiled language on July 12, "it will be an eighth-day wonder, a sort of Second Coming of Christ yarn."<sup>10</sup>

Yet, as detailed in the next chapter, when Laurence did unveil his "Second Coming of Christ yarn" shortly after the end of World War II, he placed the interests of the government over those of his readers when he omitted or obscured telling them about the radiation and radioactivity of A-bombs that distinguish them from conventional arms. Unbeknownst to *Times* readers, Laurence himself seemed to draw little distinction between his writing for the government and writing for *The Times*. As he heard President Truman's

radio message announcing the A-bombing of Hiroshima, Laurence later wrote, he sensed that "the world's greatest story was being broadcast, and mine had been the honor, unique in the history of journalism, of preparing the War Department's official press releases for world-wide distribution. No greater honor could come to any newspaperman."<sup>11</sup>

As part of the agreement with General Groves, *The Times* agreed to distribute free to the nation's other newspapers the post-war series of articles that Laurence was to write for the U.S. government to chronicle the development and testing of the A-bomb. Laurence regretted that his series would not be a *Times* exclusive.<sup>12</sup> This arrangement posed an additional conflict of interest for *The Times* itself. The newspaper allowed its principle of fearless independence to be tarnished by passing off as news those articles that Laurence had written on behalf of the government and then by distributing them, also on behalf of the government, to the nation's other newspapers. By passing off the government's message as its own news stories, as earlier discussed, *The Times* distributed "propaganda that does not look like propaganda." In doing so, the newspaper served to legitimate a government policy that early on denied the existence, persistence and menace of A-bomb radiation and that thus withheld vital information from readers.

Laurence's travels behind "the atomic curtain" proved beneficial to him and his newspaper by leading to articles that awarded him a Pulitzer Prize and thus, he and *The Times* reasoned, enhanced the prestige of the newspaper. More significant, the U.S. government had conferred a new level of expert power on Laurence.<sup>13</sup> It gave journalistic exclusivity to him and *The Times*, thus privileging them with a so-called "monopoly propaganda" position that was so fundamental for them—and the government—for effective persuasion<sup>14</sup> and legitimacy.

Laurence's services behind the "atomic curtain" also provided immense propaganda advantages for the U.S. government for several reasons. For the world's readers, the first descriptions of the A-bombing of Hiroshima, written by Laurence as press releases for the War Department and reworked in *Times* articles, fixed images and meanings that shaped early public attitudes about the emerging atomic age. Before the news of the A-bombing of Hiroshima, peo-

ple's minds were a blank slate, uncluttered with inherited stored images or descriptions of such a monstrous weapon. These first images and implications of the A-bomb, which were largely derived from Laurence's descriptions, buttressed the government's post-Hiroshima propaganda agenda. As documented in the next chapter, this agenda trumpeted almighty U.S. power and legitimated its historic use resulting in the indiscriminate obliteration of populated cities and their civilian inhabitants. Moreover, Laurence and *The Times* then played a crucial role in the U.S. government's cover-up or even denial of the immediate and long-term hazards of radiation and radioactivity resulting from the first atomic-bomb explosions.

Second, the immediate, post-war government agenda and information policy that Laurence and *The Times* echoed uncritically provided the springboard that fostered in less than a year public acceptance of U.S. Pacific nuclear weapons tests, which began on July 1, 1946.

Third, Laurence's early descriptions humanized and helped to confer status on otherwise unknown scientists, civilian leaders and military officers who helped to develop or use the atomic bomb. In turn, they helped to provide the justification for continued public funding of military-industrial atomic projects whose enormous costs for decades were kept secret not only from the public but also from members of Congress.

It may be unclear whether the government or *The Times* got the better deal in this conflict-of-interest arrangement. But, as documented in the next chapter, when Laurence and *The Times* resorted at the end of World War II to outright lies or to withholding vital, unclassified facts to aid the government in its cover-up of the effects of radiation and the persistence of radioactivity resulting from early atomic weapons explosions, it is clear that in this conflict-of-interest arrangement, the readers lost.

## **Propaganda by the Sharpest Mind**

Groves' handpicking of Laurence to eyewitness and later describe for the government the nation's most vital scientific wartime secret seemed logical. By pouring over the most advanced technical journals, attending conferences and interviewing scien-

tists in their own specialized language, according to *Times* historian Meyer Berger, Laurence, before World War II, had become the nation's premier science reporter. Laurence had the "inside track on the atomic bomb story from the start, and had kept it," Berger notes. "No other newspaperman knew quite as much about it."<sup>15</sup>

More than simply exposing secrets before they were classified by the government, Laurence had explained the obscure *how* and *why* of scientific theories in vivid language accessible to lay readers. Laurence's success in understanding scientific obscurities and translating them into everyday English seemed to spring from his intellectual background of unusual breadth and depth in languages and literature. Laurence was born in 1888 in a Lithuanian village, which he described as a center for Jewish scholarship and training rabbis that for centuries had been frozen in time and space as a "strange never-never land." At the age of eight he could practically recite most of the Old Testament in Hebrew; as a teenager, he was reading Russian, Yiddish, Hebrew and German classics.<sup>16</sup> These multilingual talents later enabled Laurence to converse in their native languages with émigré scientists who had fled Nazi Germany's anti-Semitic persecutions and helped to spark the development of a made-in-the-U.S.A. A-bomb.

Despite his study with Jewish scholars, Laurence became an atheist and a rebellious one who was expelled from school and disowned by his father. To escape conscription into the Russian military at age 17, Laurence was smuggled into Germany in an empty pickle barrel. From there he sailed to New York. Almost penniless, he knew only the English he had learned from reading Shakespeare. He moved to Boston, where he survived by tutoring Harvard students and selling class notes. In 1913, he changed his name from Leid Wolf Siew, became a U.S. citizen and went on to study at Harvard College, Harvard Law School and Boston University.<sup>17</sup>

In 1930, during the Depression, when *The Times* was laying off writers, Laurence was hired by that newspaper as the nation's first science reporter. Laurence's distinction of being hand-picked by General Groves for a special assignment came within a context in which *The Times* had early on seized the initiative in the United States in reporting on the atom. *The Times* science coverage before World War II was later described as being overly optimistic about

the beneficial uses of atomic energy. Laurence was described negatively in 1988 by historian Spencer Weart as “the world’s foremost prophet of atomic miracles.” To drive home his point, Weart quoted from an article for the *Woman’s Home Companion* in which Laurence claimed that matter from atoms could be converted into cheap, boundless energy that could then turn deserts and wildernesses into “new lands flowing with milk and honey.” Such energy could thus “make the dream of the earth as a Promised Land come true in time for many of us already born to see and enjoy it.”<sup>18</sup>

But besides euphoria in his pre-war articles, Laurence was also tracking developments that paved the way for building the bomb. By 1939, Laurence had revealed how Columbia University physicists had split the atom into two parts, thus releasing huge amounts of energy that could benefit humankind; he was silent about the resulting hazards of radiation. By 1940, Laurence disclosed that Nazi Germany was trying to build atomic weapons—a horror that five months earlier had prompted renowned scientists Albert Einstein and Leo Szilard to write President Roosevelt and urge him to develop a U.S. bomb. That letter sparked establishment of the Manhattan Project, which eventually engrossed Laurence and changed the planet.

In 1956, Laurence was named *Times* science editor, a position he held until he retired on January 1, 1964, only two months after the signing of the U.S.-Soviet treaty to end atmospheric and underwater nuclear tests that have left to this day their mark on the atolls and inhabitants of the Marshall Islands. He then was given the title of science editor emeritus.

Despite his loyalty to the U.S. government in maintaining the secrecy of its vital wartime project and then in obscuring its aftereffects, Laurence was still subject to investigations by the Federal Bureau of Investigation. Its 34-page file on him was classified as “secret” until it was declassified on July 31, 1998, at the request of this writer. Many of its pages were so heavily redacted with black ink that the contents are indecipherable. In one 1954 investigation requested by the Atomic Energy Commission about his article describing multi-megaton atomic explosions in the Pacific, the FBI recommended against pursuing criminal charges against him.<sup>19</sup>

## “I Became the Loser at Both Ends”

A decade before he died in 1977 at the age of 89 in Spain,<sup>20</sup> Laurence wrote a stinging letter to *The Times* about his 119 days spent behind the “atomic curtain” in mid-1945. He did not complain about the conflict-of-interest arrangement under which he was paid simultaneously by both the government and his own newspaper nor about the resulting loss of integrity and credibility that arrangement might provoke for a newspaper that had long promised to deliver news “without fear or favor.” Instead, he complained, he had been shortchanged by both the government and *The Times* in monies paid to him while he spent seventeen weeks researching the birth of the A-bomb and its twinned uses on Japan.<sup>21</sup>

In that letter dated February 15, 1967, 22 years after his “atomic curtain” stint, Laurence wrote *The Times* that he had received “a shock” when he re-read a now-it-can-be-told book by General Groves, which detailed the double-pay arrangement between him and *The Times* to which Laurence said he had not been previously privy. From the book, Laurence learned that he received from the Manhattan Project only the minimum daily amount of \$25 allowed for expenses instead of the regular daily pay of \$50 allowed for special consultants like himself. Even worse, under *The Times* arrangement with Groves, Laurence wrote that he was supposed to be paid weekly by *The Times* his full salary of \$150, which was sent to his wife, plus \$25 to him. But, to his chagrin, he wrote, *The Times* had not paid him his full salary because it had mistakenly required him after the war to reimburse the newspaper \$2,125, or the weekly difference of \$125 between the amount sent to his wife and the \$25 he had received for each of the seventeen weeks he was away from *The Times*.

“I became the loser at both ends,” Laurence wrote. He lost \$2,975 by being paid only \$25 a day for expenses by the Manhattan Project for 119 days instead of \$50 a day as a special consultant. Even worse, he wrote, *The Times* had wrongfully made him reimburse the newspaper \$2,125 for the salary he was entitled to under the arrangement made with Groves—and the records would show that he had made that reimbursement. “The Times has owed me this sum for all those years since September 1945,” he maintained, “and should in all fairness reimburse me together with the proper amount of legal interest.”

Laurence's letter, preserved in *The Times* archives, was addressed to Sulzberger, because "you were the publisher at the time and are familiar with the role I played and the great prestige that came to the Times as the result of that role."<sup>22</sup>

Six days later, Laurence received a reply from Sulzberger's son "Punch," who was then the publisher. He wrote that "it will be impossible" to reopen an agreement made 22 years ago by others in the company and to pay the money Laurence thought was due him.<sup>23</sup>

In sum, 22 years after providing such adroit propaganda services for the U.S. government and, Laurence thought, enhancing the prestige of his own newspaper, he unsuccessfully wrangled with *The Times* over a few thousand dollars in back pay with interest. Neither he nor *The Times* publisher voiced any ethical conflict-of-interest concerns or regrets about Laurence's receiving double pay simultaneously from the U.S. government and the newspaper. Nor did either express concern or regret about the loss of integrity and credibility of a newspaper that for decades had touted the independent, watchdog-type reporting needed to produce news "without fear or favor."

Yet, as detailed in the next chapter, *The Times*, at the dawn of such a historic era, failed conspicuously to deliver news that would detail the health and environmental aftereffects of the first atomic weapon explosions to lay and elite readers, workers, U.S. servicemen, Pacific Islanders and Japanese survivors.



## CHAPTER 3

# *News Zero from the First Ground Zeroes*

“I made one great mistake in my life—when I signed the letter to President Roosevelt recommending that atom bombs be made.”—Albert Einstein

From 1925 on, *The Times* published numerous articles on the sensational saga of the “radium girls.” These included Katherine Schaub of Newark, described as a “pretty little blond” with blue eyes who, like many of the others, came from working-class families of German, Irish or Italian descent. As a 15-year-old, she began work in 1917 at a dialpainting studio, where to fill in the numbers on the faces of watches and clocks so they would glow in the dark, she applied luminous, radium-laced paint with a brush given a sharp point by licking the tip between her lips and then guiding it with her mouth. One of the first dialpainters, Schaub joined about 2,000 others over the next decade to work in Ottawa, Illinois, and in two centers within *The Times* greater circulation area: Orange, New Jersey and Waterbury, Connecticut.

While working in dialpainting about three years, Schaub was told her health would benefit from radium, then widely used for therapeutic treatment, in patent medicines and in health spas. But two years later, she had trouble with her teeth, had them pulled but got no relief from pain and then was diagnosed as having “radium jaw.” While she was ill, her cousin, Irene Rudolph, who had dialpainted with her in the same plant in Orange, was hospitalized with anemia and necrosis—dead and pus-filled tissue and rotting bone in the mouth and jaw—which an oral surgeon cleaned out only to have the condition recur again and again. Rudolph died seven months later of what Schaub described as “a most terrible and mysterious disease.” The two cousins and other radium girls inflicted with cancer had become what historian Claudia Clark described as “among the first victims of any form of radioactivity.”<sup>1</sup>

In 1896, French physicist Henri Becquerel discovered radioac-

tivity and later experienced it personally when he received a severe burn from carrying in his vest pocket for several hours radium that spontaneously emitted enough energy rays to injure him. Years later, in the secret letter that scientists Einstein and Szilard wrote to President Roosevelt urging him to develop the atomic bomb, they alerted him to the dangers of “large quantities of new radium-like elements” that arise from a chain reaction.<sup>2</sup> Five years later, huge U.S. production plants were splitting uranium atoms that would generate “radiations equivalent to those of tons of radium.”<sup>3</sup> Then, a half century later, under a headline reading “Living With A Radium Nightmare,” *The Times* reported that the federal Environmental Protection Agency was cleaning up radium with a half life of 1,600 years that had been abandoned outside of Schaub’s dialpainting plant in Orange and later used as landfill where houses were built, only to create a toxic-waste dumpsite deserving of Superfund monies.<sup>4</sup>

In its coverage of the radium girls in the 1920s, *The Times* gave them persistent, newspaper-of-record treatment, often placing the stories on the front page. In one dramatic, Page 1 story, Schaub and four other dialpainters were told they had little chance to recover from “radium poisoning” as they listened to medical experts testifying in a Newark court case the women had filed seeking \$1.25 million in damages from their employer. In an ominous warning to future A-bomb victims, this 1928 article noted a time lapse of as much as 18 years occurred between the initial exposure to radiation and later manifestation of disease. Another medical expert described radioactivity within the body as “the slow burning up of the human frame.” The lawsuit of these women “facing death” drew even more interest, *The Times* reported in a follow-up Page 1 article, when “delay after delay” ensued. Fears grew “that the women might die before they could even get their case to a jury.”<sup>5</sup>

The women won their compensation in an out-of-court settlement, but it provided little solace to Schaub. She later resisted amputation of her tumor-infested leg and died in February 1933. The tabloids of the day gave “sob sister” treatment to the young and helpless radium girls and Hearst sensationalized their story even more by distributing throughout his newspaper empire a drawing showing a row of wispy, young women at work with paintbrushes in

their lips surrounded by ghoulish skeletons. The headline under the illustration: "POISONED!—as They Chatted Merrily at Their Work."<sup>6</sup>

The radium girl coverage of *The Times* provides a sharp contrast to the meager mentions, misleading statements or outright lies about the A-bomb's radiation and its harmful health effects as World War II was ending made by U.S. government officials and often echoed by *Times* science writer Laurence. The radium girls case also demonstrates how much was known about the dangers of radiation and radioactivity<sup>7</sup> before the work on building an atomic bomb even began.

General Groves knew about the radium girls because these first victims of radiation in the workplace inspired the medical research needed to set health standards that were later used to cover workers on the Manhattan Project that he directed<sup>8</sup> and later in the atomic energy industry.<sup>9</sup> As Professor of Industrial Medicine Merrill Eisenbud summed up in 1963:

Thus, in one way or another, almost all the major effects of ionizing radiations on man were known prior to World War II. Moreover, the basic techniques for protecting workers were also known and have been utilized ever since with minor basic modifications.<sup>10</sup>

Thanks to these medical standards, Groves made sure scientists and workers at the Manhattan Project itself were laboring in a safe environment. Groves and his staff also knew unpredictable radioactivity would result from atomic bomb explosions and, as described below, made elaborate and unpublicized plans to declare martial law during the Trinity test shot in New Mexico if radioactive fallout necessitated evacuation of residents living near Ground Zero. Laurence also knew about the risks of radiation because of the deceptive press release he wrote, and Groves edited, to conceal from the public and nearby residents the threat of radioactive fallout.

Groves had received his own first-hand knowledge of the agonizing death caused by excessive exposure to radioactivity. On August 21, 1945, just days after the end of World War II, the atomic bomb's first peacetime casualty occurred in the Los Alamos laboratory that Groves oversaw. A 22-year-old physics

student, Harry Daghlian, received a dose of radioactive spray that painted the air with a purple glow. He agonized for a month with swollen limbs and skin dropping from his body before he died.<sup>11</sup> His death was reported in only the first paragraph of a four-paragraph wire service story that *The Times* published, but the article made no mention of radioactivity. Instead a government official, in response to a query, confirmed the Connecticut native's death but attributed the cause as resulting from "burns from an industrial accident."<sup>12</sup>

### **Nagasaki: Only 1,000th the Radioactivity of a "Luminous Dial Watch"**

Despite this wrenching close-up of death by radiation, Groves painted a far different picture to outsiders. Three months later, on November 28, in Washington, Groves told members of a special atomic-energy committee that a radioactive casualty can be one killed instantly or "can have a smaller amount which will cause him to die rather soon, and as I understand it from doctors, without undue suffering. In fact, they say it is a very pleasant way to die."<sup>13</sup> *The Times* covered that Congressional session in a 15-paragraph article, but made no mention of Groves' quote or his misleading description of death by radioactivity.<sup>14</sup>

Also deceptive—if not perversely ironic—was a *Times*-generated article about Nagasaki that carried the subhead "Radioactivity After Atom Bomb is Only 1,000th of That From Luminous Dial Watch." Under a Tokyo dateline, *Times*man George E. Jones reported on October 7 that radioactivity was virtually negligible in Nagasaki based on the report of the chief medical officer at the Trinity shot, Colonel Stafford Warren, after his 10-day visit to that city that had been A-bombed two months earlier. Although none of the radium girl stories in the 1920s had suggested the watches and clocks were dangerous to wearers, as distinct from the dialpainters, Warren was described as using that analogy in *The Times* report. He indicated that Geiger-counter readings measuring radioactivity in Nagasaki were less than those of Seattle or San Francisco and were at least 1,000 times less than that emanating from "an ordinary luminous watch dial." He was also quoted as saying "there never was and is not now any dangerous amount of radioactivity in any place in

Nagasaki.”<sup>15</sup> Of the 253,000 residents that *The Times* described as living in the “important industrial and shipping center” when it was A-bombed on August 9,<sup>16</sup> historian Ronald Takaki, a half century later, reported that more than 70,000 died because of the explosion and 70,000 died within five years from radiation.<sup>17</sup>

## Four Press Releases of the Apocalypse

Even before finishing half of his 119 days behind the “atomic curtain,” Laurence had covered a lot of ground working for the Manhattan Project. “I had flown more than 35,000 miles, and had done a lot more mileage by motor car,” he recalled in 1945. “I had been initiated in all the secret plants, which at that time no outsider knew by name—Oak Ridge, Hanford, Los Alamos... I had seen things no human eye had ever seen before—that no human mind before our time could have conceived possible. I had watched in constant fascination as men worked with heaps of uranium and plutonium great enough to blow major cities out of existence.”<sup>18</sup>

In the second half of his 119 days, Laurence watched as the major city of Nagasaki was blown out of existence. He had been granted permission to accompany the crew that A-bombed Hiroshima but his plane was delayed and he missed that historic flight.

Laurence eyewitnessed and chronicled the first A-bomb exploded at Ground Zero, which he described as “the code name given to the spot chosen for lighting the first atomic fire on this planet”<sup>19</sup> on the Alamogordo Air Base where the Trinity shot was detonated on July 16, 1945, two months after the surrender of Nazi Germany and less than one month before the surrender of Imperial Japan. This exclusive newsman’s access to Trinity gave Laurence a “monopoly propaganda” platform that he used to barely mention radiation in his post-war articles written for the government and, as described earlier, published and distributed free as news by *The Times* to the nation’s other newspapers. For example, as detailed below, Laurence’s assignment at Trinity’s Ground Zero permitted him to observe the elaborate plans Groves and his staff made to measure, track and provide safeguards against radioactive fallout—but these observations were virtually omitted in his exclusive newspaper sto-

ries. Later, Laurence used his exclusive platform and first-hand experiences at Trinity to continue to serve the government after he was detached from the Manhattan Project by giving credence to U.S. claims that denied or minimized the existence and dangers of radioactivity at the Ground Zeroes of Trinity, Hiroshima and Nagasaki.

Laurence wrote the first draft of the government's cover-up of the super-secret Trinity shot. One of Groves' first assignments for Laurence in mid-1945 was to prepare news releases that would disguise the detonation and resulting radiation of the first atomic bomb in history. The disguise of the explosion that Laurence invented was a jumbo detonation of an ammunition magazine filled with high explosives at the 2000-square-mile Alamogordo Air Base.

Whether this first atomic bomb would actually explode was the first uncertainty faced by government officials striving to build a secret weapon that would end the war with Japan. If the bomb fizzled, no news release was necessary.

But if the bomb did explode, Groves was still uncertain as to what exactly would occur. If Trinity exploded successfully, Groves and his team were faced with another major uncertainty: the problem of radioactive fallout arising from the shot and passing over neighboring communities.<sup>20</sup> Although the phenomenon of radiation had been known to medical and scientific specialists—and reported persistently in *Times* articles on the radium girls in the 1920s—just how it would unfold in the world's first atomic bomb test was impossible to gauge accurately.<sup>21</sup> To answer anticipated queries from the press or the public, Groves instructed Laurence to write four press releases covering a spectrum of four eventualities that ranged from the least worrisome case (a loud explosion with no property damage or loss of life) to the worst case (a mammoth explosion causing widespread destruction of property and loss of life).<sup>22</sup>

Groves had another worry. On July 16, when he hoped to test the Trinity shot, the Potsdam Conference was to open where President Truman, meeting with Allied leaders, was expected to issue a surrender ultimatum to Japan that could be more forceful if he could back it with successful results of the Trinity test.<sup>23</sup>

Knowing that radiation would result from the Trinity explosion, Groves took steps to minimize it. For example, he and his team

decided to explode the bomb on a high tower, in part to minimize the amount of desert sand that would be sucked up into the bomb's fireball and then descend as deadly radioactive fallout.<sup>24</sup>

Groves and his staff were also so concerned with radioactive fallout that they developed elaborate contingency plans for martial law in the event that it descended over neighboring communities. Calculations made in May that tiny hamlets near Alamogordo might be hit by radioactive fallout caused Groves' staff to draw up evacuation plans. Groves coordinated with the governor of New Mexico to declare martial law throughout the southwestern part of the state, if necessary, and made secret arrangements to carry out massive evacuations if fallout became serious. These extensive preparations based on a detailed knowledge of and worry about radioactivity—which the reporter Laurence was aware of at the time—contrast so markedly with Laurence's post-war omissions on this topic, especially when he used his authoritative voice to give credibility to the government's post-war denial of the existence of health hazards of radiation at the next Ground Zeroes at Hiroshima and Nagasaki.

Laurence gained first-hand knowledge of the Trinity's worrisome radiation when one of his press releases was edited by Groves. Worried at the last minute by the uncertain thunderheads and the effect they might have on dispersal of radioactive clouds,<sup>25</sup> Groves added a sentence at the end of Laurence's first proposed press release. Groves' addition indicated that "weather conditions affecting the content of gas shells exploded by the blast may make it desirable for the Army to evacuate temporarily a few civilians from their homes."<sup>26</sup> Thus, the press release written by Laurence and added to by Groves concealed the radiation they knew would result from the blast.

Besides planning for martial law, Groves and his staff took other important steps that signaled their knowledge of and worry about radiation. To monitor the direction and level of radioactive fallout, the chief radiologist, Colonel Stafford Warren, organized teams armed with instruments to be posted along the highways leading to the test site.<sup>27</sup> And, to protect against property or personal claims resulting from runaway radioactivity, Groves' subordinates also pulled in more legal assistance to maintain accurate records and secure samples of radioactive earth.<sup>28</sup>

Because of a drizzle, Groves did have to delay the firing of Trinity for one and a half hours, from 4:00 a.m. to 5:30 a.m. By then, Groves later recalled, the misting had stopped and the general wind direction was satisfactory, a vital consideration “because we did not want the radioactive cloud to pass over any large town until it had become widely dispersed.”<sup>29</sup>

The delay in exploding the bomb and the far-greater-than-expected flash it caused meant Trinity could hardly be kept a secret. The flash was seen 450 miles away in Amarillo, Texas.<sup>30</sup> Telephone calls swamped The Associated Press offices in Arizona and New Mexico.<sup>31</sup> For the first few hours after the test, the radioactive clouds caused Groves and Warren anxious moments.<sup>32</sup> Warren’s monitoring picked up heavy fallout ten miles north of Ground Zero and some radioactivity was falling on towns as far as 120 miles from the test site. Some radiation monitoring counters shot off the scale.<sup>33</sup> In the end, no one was evacuated. No immediate injuries were reported. Property damage was generally limited to the cracking of several window panes at Silver City, New Mexico, 180 miles away.<sup>34</sup>

Trinity had been wildly successful, without any loss of life or significant property damage. Groves had predicted Trinity would have a minimum force of 250 tons of TNT<sup>35</sup>—or one-quarter of a kiloton. Trinity’s yield was actually 21,000 kilotons or 84 times greater than expected.

Laurence’s press release about the fake news of an ammunition explosion that served as the cover story for the Trinity shot was distributed by the commanding officer of the Alamogordo Air Base. Even though no loss of property or life was reported, the announcement about such a sensational development dominated the newspapers of the Southwest and radio broadcasts along the Pacific Coast. But *The Times* declined to publish news of that huge ammunition explosion. All East Coast newspapers also declined except for a few lines in the early editions of one Washington newspaper.<sup>36</sup> These big-city newspapers instead bowed to the wishes of Army security and the office of voluntary censorship in Washington,<sup>37</sup> which hoped to keep information out of the hands of suspected Japanese agents operating in the major East Coast communication centers.<sup>38</sup>

Before Laurence left Alamogordo, he had learned first hand



conditions at the Ground Zero and about the dangers of radioactivity. At Zero itself, the sand had been crystallized by the intense heat into a glassy material the color of jade.<sup>39</sup> Laurence wrote that a 32-ton steel-rigging tower once standing 800 yards away from Zero was turned into “a twisted mass of wreckage.” At Zero itself and within a radius of about a mile, Laurence reported, all life had been destroyed: “There was not a rattle snake left in the region, nor a blade of grass.”<sup>40</sup>

But he virtually ignored raising in his—and the world’s—first eyewitness account of Trinity the dangers of radioactivity that Groves and his staff had made such elaborate plans to minimize and monitor. Laurence described the Trinity shot in the first two articles of his 10-article series chronicling for the government the birth of the A-bomb. The series ran in *The Times* on consecutive days beginning with the first article published September 26, or more than a month after the surrender of Japan. As noted earlier, *The Times* then distributed as news free to the nation’s other newspapers this series Laurence wrote for the government.

In the first article of 77 paragraphs, given Page 1 prominence, Laurence makes no mention of radioactivity at all.<sup>41</sup> In the second article, he makes three mentions. At the bottom of the eighth paragraph, he mentions the measurement of “post-explosion radiations” on the ground and in the air. At the end of the tenth paragraph he mentions “radiation meters” as being among the numerous devices scientists would use for measurements. And in the 25th paragraph of the 31-paragraph article he mentions in 13 words that a week before the Trinity shot “a network of radiological stations” had begun to be set up “to measure the radiation effects of the explosion.”<sup>42</sup> Even though the series was published more than two months after Trinity, Laurence failed to provide *Times* readers any follow-up information on the results of this monitoring or potential radiation effects.

In this article, Laurence did hint at the dangers of radioactivity when he described a crew of scientists inspecting Ground Zero in two Sherman tanks lined with lead. By manipulating instruments from the inside, the scientists were able to scoop up samples of the earth near Ground Zero. But Laurence left readers in the dark about the significance of lining the tanks with lead, which was to provide the scientists with protection against radiation. Nor did he followup

to report on the results of what the scientists had discovered in the Ground Zero dust in the two months after Trinity exploded.<sup>43</sup>

## Trinity's Snow-Covered Grounds at "Hot Canyon"

If Laurence had followed up on the effects of Trinity, he would have given readers a significant, ominous warning about the emerging atomic age. His task would not have necessarily been easy. The after-action monitoring reports were well guarded. They were segregated from others and were released only at the personal request of project scientist J. Robert Oppenheimer, who was a key source for Laurence since pre-war days. Associates thought Oppenheimer maintained such tight information control over reports on Trinity's after-effects so as to "safeguard the project against being sued by people claiming to have been damaged."<sup>44</sup>

Without persistent questioning by Laurence, the government withheld from the public for years information it had received on Trinity's harmful radioactive effects on cattle. Within a few weeks, but left unreported by Laurence, cattle about 10 to 15 miles from the Trinity shot that had been exposed to radioactive dust lost their hair and developed blister-like lesions.<sup>45</sup> Particularly significant were the effects on cattle in a steep gorge to the northeast of Ground Zero that became known as "Hot Canyon." There, specialist Barton Hacker reports, an elderly rancher named Raitliff told a health monitor that immediately after the Trinity detonation, the ground appeared to be "covered with light snow" and at dawn and dusk for several days afterward "the ground and fence posts had the appearance of being 'frosted.'" But he appeared to suffer no ill effects.<sup>46</sup>

Lawsuits by distressed ranchers were soon filed with the Alamogordo Air Base commander<sup>47</sup> but were quietly settled. Not until 1950 were *Times* readers informed about the significance of the lesions on the cattle. Then, in a five-paragraph article datelined Chicago, an Army veterinary surgeon, Lt. Col. John H. Rust, told an academic seminar that some 16 cattle dusted by Trinity's radioactive fallout had shown "definite pre-cancerous conditions" in tests made by government pathologists.<sup>48</sup> Three years later, studies of these lesions proved useful when a more serious fallout incident unfolded. Then, in 1953, so many sheep had died after two nuclear detona-

tions in Nevada that one U.S. official was vowing to cut off funding for future tests if the deaths were attributed to the fallout. Using the findings gained from the secret Trinity test were two veterinarians who visited the 1953 scene at the request of the Atomic Energy Commission (AEC). The veterinarians reported that the dead sheep seemed to be killed by fallout from the 1953 shots because the animals carried the same kind of lesions that had appeared on cattle after the Trinity explosion of July 1945. The veterinarians' 1953 findings were immediately classified by the AEC and these views suppressed by the government until disclosure was made 29 years later in 1982 court proceedings.<sup>49</sup>

Thus, without badgering by Laurence shortly after Trinity, the government was able to continue a pattern of denying or minimizing the health and environmental dangers resulting from the radioactivity dispersed at the next Ground Zeroes in Japan and the Pacific Islands.

### **“Rain of Ruin” over Hiroshima and Nagasaki**

In the five days between the devastation of Hiroshima and the detonation over Nagasaki, *The Times* published 132 news items related to the bomb. Across these two momentous events, the dominant angle evidenced in *The Times* was omission or obscuring of the most significant—and most newsworthy—feature of atomic bombs: radiation and ongoing radioactivity, according to an analysis made by this writer of the text-based news items published in *The Times* about the A-bombing of Hiroshima for five days beginning August 7, 1945, and ending with the A-bombing of Nagasaki.<sup>50</sup> *The Times* articles also omitted another fundamental feature of the atomic age: once a chain reaction of split atoms was unleashed, it produced silent, invisible and uncontrollable dangers of radiation that could not be reversed, thereby accounting for much of today's problems with nuclear waste. Several *Times* news articles were based on Laurence's earlier newsgathering or writing in press releases for the War Department.

The importance of the silence about radiation is evident in cultural studies scholar Stuart Hall's statement, “Nothing *meaningful* exists outside of discourse.” The real world becomes *meaningful* only

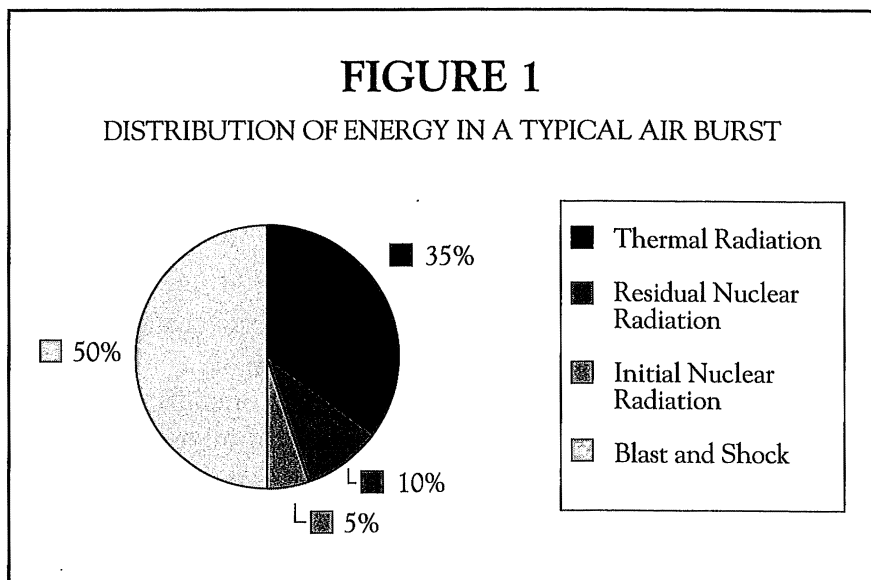
through discourse, which is often provided by representations in the media, Hall and others say.<sup>51</sup> This meaningful discourse is especially significant for unexpected first-time events removed from readers' direct experiences or face-to-face communication. If radiation was ignored in disclosures to the public, uninformed readers would fail to grasp the significance of it, thus rendering it meaningless. Thus, as political scientist Michael Parenti asserts, "the single most common form of media misrepresentation is *omission*."<sup>52</sup>

The atomic bombs devastating Hiroshima and Nagasaki were similar to conventional weapons in that about fifty percent of their destructive action was due to blast, caused by the rapid release of energy and scalding gases.

But unlike any conventional weapons, the defining feature of the Hiroshima and Nagasaki A-bombs was that about half of the energy released was in the form of radiation. In the explosion of conventional weapons, a U.S. specialist noted, "there are no nuclear radiations since the atomic nuclei are unaffected."<sup>53</sup> In sum, radiation is an effect resulting from nuclear detonations that distinguishes these weapons from conventional arms. This distinction is familiar to virtually everyone today. Yet in 1945, it was important news—that went unreported in *The Times*.

In 131 of the 132 text-based news items in *The Times* that were analyzed, this key distinction remained unaddressed. Radiation is an issue of public importance, the kind that *The Times* had been pledged by Ochs to chronicle and that readers might have been expected to be covered as the defining essence of the emerging atomic age. U.S. scientists and military leaders who developed the Hiroshima bomb and Laurence himself were aware that radiation was the unique energy that resulted from atomic-weapons explosions.<sup>54</sup>

In 1957, details about radiation were disclosed to U.S. civil defense workers and lay persons and illustrated in Figure 1 below.<sup>55</sup> Figure 1 shows that half the energy of a Hiroshima-style airburst A-bomb appeared as blast and shock and half appeared as radiation.<sup>56</sup>



Source: U.S. Atomic Energy Commission, *The Effects of Nuclear Weapons*, ed. Samuel Glasstone (Washington, D.C.: Government Printing Office, June 1957), 6.

Significantly, five weeks after the Hiroshima bomb, a *Times* editorial used the term “residual radiation,” which is depicted by the dark gray meshed lines above, signaling that the newspaper editors were aware of this distinctive kind of radiation.<sup>57</sup>

Only one of the 132 text-based news items in *The Times* found during the five-day Hiroshima-Nagasaki period discussed radiation and it was a curious one that appeared on August 9 under the one-column head:

#### 70-YEAR EFFECT OF BOMBS DENIED<sup>58</sup>

This *Times* article reported on statements issued by Dr. J. Robert Oppenheimer and the War Department that the bomb explosion over Hiroshima had not left any appreciable radioactivity on the ground. Oppenheimer, as director of the research project that developed the atomic bomb, had issued the statement at the request of the War Department to counter the position taken in a newspaper article written by a technician who had drafted manuals for the Navy, Dr. Harold Jacobson. In his article that had been distributed by a newspaper wire service, Jacobson declared that Japanese visit-

ing the Hiroshima ruins would be in danger for 70 years because dangerous secondary radiations would continue for that long. *The Times* did not publish Jacobson's original article. But it published the denial of Jacobson's article by Oppenheimer, who was quoted as saying, "Based on all our experimental work and study and on the results of the test in New Mexico," there is every reason to believe that there was no appreciable radioactivity on the ground at Hiroshima and "what little there was decayed very rapidly."<sup>59</sup> Oppenheimer's statement was disingenuous at best because, as noted above, radioactivity had shown up at the Trinity site.

The reason for silence about radiation is unaddressed in *The Times* articles. The possibility that the release of information about radiation was classified was hinted in the statement made by Secretary of War Henry L. Stimson on August 7. He said security requirements did not then permit officials to reveal "the exact methods by which the bombs are produced or of the nature of their action."<sup>60</sup> In an article published two days later, *The Times* noted that scientists, technicians and others connected with building the bomb had been pledged to secrecy under the Espionage Act.<sup>61</sup> However, after official disclosures on August 6 about the atomic bomb, journalists were no longer voluntarily bound to blackout news about nuclear weapons or their actions.<sup>62</sup> But *The Times* continued to toe the government line.

Instead of describing the revolutionary nature of the Hiroshima A-bomb in terms of its defining feature of radiation, *The Times* news items compared the A-bomb to conventional weapons whose explosive force was measured in terms of TNT. This description in *The Times* is evidenced in its most conspicuous element, a three-line headline across all eight columns at the top of Page 1 on August 7, 1945:

FIRST ATOMIC BOMB DROPPED ON JAPAN;  
MISSILE IS EQUAL TO 20,000 TONS OF TNT;  
TRUMAN WARNS FOE OF A 'RAIN OF RUIN'

Two-thirds of the first paragraph of *The Times* lead article was devoted to describing the atomic bomb as "possessing more power than 20,000 tons of TNT, a destructive force equal to the load of 2,000 B-29's and more than 2,000 times the blast power of what previously was the world's most devastating bomb."

This most-powerful-bomb-in-history description, written by Sidney Shalet, was echoed in a *Times* editorial that day as well as in other formats. A column by military writer Hanson Baldwin, described the bomb as “a God-like power under man’s imperfect control.”<sup>63</sup>

The destructiveness of the A-bomb was described in the first articles and photos as being almost exclusively confined to Hiroshima’s military sites and Nagasaki’s industrial sites with military significance. In the first paragraph of his statement announcing the first A-bombing, President Truman described Hiroshima as “an important Japanese Army base.” *The Times* published the full text of this statement.<sup>64</sup> *The Times* echoed the president’s words by describing in the third paragraph of its first-day story on Hiroshima that the target site was as “an important army center.” But no source of attribution was provided for that description.<sup>65</sup> *The Times* left unexamined the non-military composition of the population, which was the vast majority. Significantly, the civilian population was largely unmentioned in the articles, although the destructiveness of the bomb was unable to distinguish between military and non-military personnel or structures. Of Hiroshima’s population of 350,000, which included 43,000 military personnel, 70,000 were killed outright by the bomb and 130,000 more died within five years, mostly from radiation.<sup>66</sup> Thus, in another key omission, *The Times* left unquestioned and unaddressed the indiscriminate nature of the atomic weapon with its immediate effect of mass killing of civilians.

By virtually ignoring radiation as the distinguishing feature of the atomic weapon, writers of *Times* articles captured the magnitude of the new weapon by resorting to the use of superlatives that touched on the elemental, the supernatural or even the divine. For example, a *Times* article on August 7 described the Trinity test by quoting extensively an eyewitness, Brigadier General Thomas F. Farrell. He used metaphors of the familiar supernatural and the divine to explain:

Thirty seconds after the explosion came ... the strong, sustained awesome roar which warned of doomsday and made us feel that we puny things were blasphemous to dare tamper with the forces heretofore reserved to the Almighty.<sup>67</sup>

Another aspect of *The Times* coverage emphasized in several

ways the unprecedented U.S. power gained from the new atomic weapon. On the eve of Japan's surrender, President Truman told the U.S. people that the country had emerged from the war "as the most powerful nation in the world—the most powerful nation, perhaps, in all history." He defined that power in ideological terms to mean that "a society of self-governing men is more powerful, more enduring, more creative than any other kind of society, however disciplined, however, centralized."<sup>68</sup>

The U.S. triumph was trumpeted in several ways. One was by the jubilation of beating the Nazi regime in the development of the atomic bomb.<sup>69</sup> This theme of U.S. competition for power with rivals recurred, but the rival nation and the nature of the rivalry shifted over time. Even before its surrender, Japan was discounted as a threat in the race to produce an atomic weapon, a *Times* editorial noted, arguing that "Japan has been only an imitator of Western technology since she was stripped of her isolationism in 1853."<sup>70</sup>

On August 9, this theme of rivalry re-appeared with far greater prominence in another Page 1 three-line banner headline:

SOVIET DECLARES WAR ON JAPAN;  
ATTACKS MANCHURIA, TOKYO SAYS;  
ATOM BOMB LOOSED ON NAGASAKI<sup>71</sup>

Overshadowing the A-bombing of Nagasaki were the two lines *The Times* devoted to Soviet military initiatives that spotlighted a wartime ally and potential rival.<sup>72</sup> In subordinating the A-bombing of Nagasaki, which killed outright nearly a third of its population of 253,000, to Soviet military initiatives, *The Times* followed the lead of the U.S. government. The U.S. had de-emphasized the second A-bomb attack by having the announcement of it made by General Carl A. Spaatz in Guam, where *The Times* report was written.<sup>73</sup> Only five paragraphs long, it was subordinated in the third column of Page 1. In contrast, disclosure about the Hiroshima bomb was released in Washington in the name of President Truman even though he was then sailing home from the Potsdam Conference; the announcement garnered banner headlines.

Several *Times* articles quoted U.S. officials as hailing the Soviet's entry into the Pacific war.<sup>74</sup> Yet hints of potential Soviet-U.S. rivalry appeared in other *Times* articles. For example, the thrust



by the Soviets into the Pacific war did not mean they would be given access to the U.S. atomic secrets, one *Times* article mentioned in passing.<sup>75</sup> On August 9, *Times* military editor Hanson Baldwin wrote that the entry by the Soviet Union into the Pacific conflict by declaring war on Japan had “widespread political implications,” indicating that it was “establishing its right to a voice in all Pacific and Asiatic problems, indeed in all global problems.”<sup>76</sup> Thus, *The Times* acknowledged the seeds of a looming Cold War while Nagasaki still smoldered from atomic devastation.

On the eve of Japan’s surrender, President Truman raced ahead of potential rivals by announcing to the world that the U.S. government would acquire whatever outlying military bases it deemed necessary “for the complete protection of our interests and of world peace.”<sup>77</sup> The next day, when Japan first offered to surrender, *The Times* displayed prominently on Page 1 an article indicating that U.S. terms of surrender would demand that the Japanese government relinquish all strategic islands in the Pacific to the United Nations. But the United States would insist on sole occupation of those islands deemed essential for security purposes. The list could not be disclosed, *The Times* said.<sup>78</sup> But the newspaper article had served to alert the world to the staking out of U.S. claims to future Ground Zeroes in the Pacific.

### **“An Inhumane Weapon” that Violated International Law?**

Three days after the A-bombing of Hiroshima, the gripping news about its devastation was told in Tokyo radio broadcasts monitored overseas and published in *The Times* on August 9. The article quoted the Japanese broadcast as saying that when the A-bomb exploded “practically all living things, human and animal, were literally seared to death” and that “people who were outdoors at the time of the explosion were burned alive by high temperatures while those who were indoors were crushed by falling buildings.”

Besides describing the devastation around Ground Zero, the broadcast decried the “illegal and useless and needless bombing” and stated that the atomic attack was a violation of international law,<sup>79</sup> thus ushering in an urgent question still perplexing the world. Two

days later on August 11, when Japan offered to surrender, *The Times* inserted into a Page 1 article three paragraphs indicating that Japanese officials had filed a protest with the U.S. government, asking it to immediately stop using “such an inhumane weapon.”<sup>80</sup> By then President Truman had warned Japan to surrender or face U.S. bombing of war industrial centers that meant “thousands of civilian lives will be lost.”<sup>81</sup> Also on August 11, indicating a rapidly growing significance of international law, a two-paragraph *Times* article carried a headline that countered the Japanese accusations. The headline read:

Atom Bomb Is Lawful,  
Jurists Decide in Rio<sup>82</sup>

That same day *The Times* published an editorial and Page 1 news report on and the full text of “a new code of international law” under which German and Italian leaders were to be tried by the Allies. The new code defined “aggressive warfare as a crime against the world,” *The Times* article indicated, and provided punishment for those instigating such wars. The article quoted U.S. Supreme Court Justice Robert H. Jackson as saying the code, which he had largely shaped, “ought to make clear to the world that those who lead their nations into aggressive war face individual accountability for such acts.” The article stated that war-crime trials were expected to begin within several weeks in Nuremberg.<sup>83</sup>

The Japanese broadcasts that first asserted the A-bombing of Hiroshima violated international law referenced “Article 22 of The Hague Convention.” *The Times* added in brackets the specific wording of that article: “The right of belligerents to adopt means of injuring the enemy is not unlimited.”<sup>84</sup>

Were the Japanese correct in arguing that the A-bombing of Hiroshima violated international law in 1945? The answer is no, based on the actions taken at the Nuremberg International Military Tribunal implementing the new international code noted above. The Nuremberg actions were consistent with an advisory opinion issued 51 years later, in 1996, by the International Court of Justice, commonly called the World Court.

The Nuremberg war-crimes trials were described in 1992 in the personal memoirs of Telford Taylor. A distinguished New York lawyer,

he served as a principal assistant to Justice Jackson, who was the U.S. chief prosecutor at the Nuremberg International Military Tribunal. Taylor's published personal memoir, disclosing previously unknown details of this key war crimes trial, takes on added significance because after the international trial at Nuremberg, he was appointed to be the U.S. Chief of Counsel for War Crimes and served as the chief prosecutor for subsequent war crime trials of other German leaders conducted by the United States at Nuremberg.<sup>85</sup> Taylor is recognized as a leading expert on the status of international law relating to war crimes during and immediately after World War II.

In his memoir, Taylor takes note of the many devastating city air raids conducted during World War II by Germany, Britain and the United States—Warsaw, Rotterdam, Coventry, Hamburg, Berlin, Dresden, Tokyo, Hiroshima, and Nagasaki.<sup>86</sup> Herrman Goering, commander in chief of the German Air Force, was one of the defendants tried by the Nuremberg International Military Tribunal. He was directly responsible for the city air raids by the Germans. Taylor points out, however, "The prosecution had made no effort to build a war crimes case based on attack from the air."<sup>87</sup> Goering was found guilty of other war crimes and was sentenced to be hanged. He committed suicide before the sentence was executed.

During the post-Hiroshima era the use and the threat of the use of nuclear weapons has remained a divisive issue, as evidenced by the controversies surrounding recent national exhibits to display and explain the Enola Gay, from which the A-bomb was dropped on August 6. The past 50-some years have seen the adoption of the United Nations Charter and many other international treaties and legal instruments designed to minimize the impact of armed conflict on civilians and non-participants, including the four Geneva Conventions of 1949 and the two 1977 Protocols Additional to the Geneva Conventions of 1949.

In December 1994, the U.N. General Assembly requested that the 14-judge World Court give it an advisory opinion on the question: "Is the threat or use of nuclear weapons in any circumstance permitted under international law?" The Court's conclusions are set forth in Appendix Table 2.

The merit of the 1945 Japanese claim of illegality is denied by the Court's conclusion (eleven votes to three) that "[t]here is in nei-

ther customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such.” In arriving at this conclusion the Court had specifically considered Article 22 of the Hague Regulations, which had been cited by the Japanese in 1945 in their claim that the use of the A-bomb violated international law.<sup>88</sup>

On a seven-to-seven vote, the judges concluded that they could not answer the specific question presented by the U.N. General Assembly. “In view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defense, in which the very survival of a State would be at stake.”<sup>89</sup> This inability, however, does not alter the Court’s conclusion decided by 11 of the 14 judges that, even today, there is no customary or conventional international law absolutely prohibiting the threat or use of nuclear weapons.<sup>90</sup> Therefore, no such prohibition existed in 1945 to support the Japanese claim.

A related contentious question, still not resolved, remaining over the post-Hiroshima decades is whether the A-bombings were militarily necessary or justified. Reasons justifying the bombings for lay and elite readers’ consumption are threaded through the ten-article series Laurence wrote for late September publication and through military writer Baldwin’s columns shortly before August 6. But even before the bombings, some senior officials opposed them.

Laurence’s two articles on the making and use of the Trinity bomb provided significant post-Hiroshima arguments for the U.S. government’s justifying the A-bombing of Japan without providing any alternative viewpoints or critical assessments. Although his ten articles were published seven weeks after Japan’s surrender, Laurence wrote that originally the race to build the A-weapon had been against Germany, a race that he publicized as early as 1940 after scientists Einstein and Szilard requested the United States to begin atomic experiments. But the race with Germany was only the first act, Laurence wrote; the “grand finale” was A-bomb use in Japan as a means to save lives of U.S. troops that would otherwise be lost in an invasion the islands. Appealing to Judeo-Christian readers, Laurence wrote:

“The cosmic fire that lighted earth and sky for hundreds of miles was a modern version of the Biblical handwriting on the wall to the Japanese and all would-be future aggressors. . . . You have been weighed and found wanting.” He added that the “mightiest man-made thunderbolt meant life for many thousands of our fighting men. It meant a quicker end to the war, assurance of a speed-up in the coming of peace to the firesides of America and her Allies.” He concluded his second article with a quote of chief scientist J. Robert Oppenheimer on the implications of the Trinity shot: “Lots of boys not grown up yet will owe their life to it.”<sup>91</sup>

The surrender of Germany in May signaled to Baldwin that an even more overpowering strategic air bombardment against Japan would ensue with even more damaging results. “We are picking up in the Pacific where we left off against Germany,” he wrote. The air strikes from Superfortresses “against Japanese factories, workers’ homes and cities” as well against military targets would be coupled with an effective blockade of the insular nation, he predicted. Yet he warned on June 20, “it would be a major mistake to count too heavily upon defeating Japan with bombardment and blockade without invasion.” Just three weeks before the A-bombing of Hiroshima, Baldwin concluded on July 15 that without an invasion of the homeland “the war with Japan is to drag on for many weary months.”<sup>92</sup>

On the other hand, others argued against using the A-bomb against Japan. Scholar Monica Braw concluded that a prime reason for U.S. censorship in Occupied Japan was to silence views that the atomic bombings of Hiroshima and Nagasaki were so barbaric they constituted crimes against humanity. Such views were held by some high-ranking U.S. officials before the bombs were dropped. For example, Braw, citing others, quoted Admiral William Leahy, chief of staff to Presidents Roosevelt and Truman, about using the atomic bombs:

My own feeling was that in being the first to use it, we had adopted an ethical standard common to the barbarians of the Dark Ages.... [Using the atomic bomb] would take us back in cruelty toward noncombatants to the days of Genghis Khan. It will be a form of pillage and rape of a society done impersonally by one state against another whereas in the Dark Ages it was a result of individual greed and vandalism. These new and terrible instruments of uncivilized warfare represent a modern type of barbarism not worthy of Christian man.<sup>93</sup>

Other scholars, citing government records, argue that the United States A-bombings in Japan were not simply to save U.S. servicemen's lives but instead involved a web of complex reasons. These included an attempt to stop Soviet expansionism in Asia, the cultural antipathy to those of a different race and religion and even the macho attitude of President Truman, who disdained appearing to be "a sissy."<sup>94</sup>

Rather than stopping Soviet expansionism, the A-bombing of Hiroshima did just the opposite. A day after the bombing of Hiroshima, Stalin ordered his subordinates to build atomic weapons and catch up with the United States. Within four years they had succeeded.<sup>95</sup> What had started out as a nuclear race with the Germans, which was publicized by Laurence, feared by Einstein but proved non-existent, ended a decade later with an all-too-real race with the Soviets.

The A-bombing of Hiroshima prompted Einstein in his latter years to say: "I made one great mistake in my life—when I signed the letter to President Roosevelt recommending that atom bombs be made."<sup>96</sup>

## **"A Whirlwind from the Skies" to Pulverize Thousands of Civilians**

A month after the second A-bomb had been dropped on Nagasaki and killed outright nearly a third of its population of 253,000, Laurence's eyewitness account of the destruction of that city was published in *The Times*. The article describing such a historic event was nonetheless anti-climatic because by the time it was published on September 9 Japan had surrendered and the Pacific War had ended.

*The Times* played Laurence's article in the center of Page 1 under a one-column headline and a dateline of "WITH THE ATOMIC BOMB MISSION TO JAPAN, August 9 (Delayed)." On Page 1, Laurence identified the targeted city as "the great industrial and shipping center of Nagasaki."<sup>97</sup> Then the article was continued to page 35, where it filled nearly half of the page.

Laurence's article was largely written in chronological order so that the flight over Nagasaki was buried in the last paragraphs. Eight

long paragraphs in the middle were filled with names of the crew, scientists and supporting personnel, as though Laurence was conferring status upon them.

Significantly, Laurence left unmentioned the radiation he knew from his Trinity experience that the bomb would produce. And he left unmentioned that the bomb, like the Trinity one, had used the revolutionary, man-made plutonium, rather than uranium, as its deadly radioactive component.

Enmity toward the Japanese shows up in Laurence's article. Laurence refers to Japan as "the land of our enemy" or "the Empire," the term then used by U.S. officers. In his chronology of the Nagasaki mission, Laurence makes a surprising shift in the story line as the time approaches for the dropping of the "Fat Man" bomb. Evidencing a lack of impartiality, Laurence lashed out at the Japanese below, writing:

In about four hours from now one of its cities, making weapons of war for use against us, will be wiped off the map by the greatest weapon ever made by man. In one-tenth of a millionth of a second, a fraction of time immeasurable by any clock, a whirlwind from the skies will pulverize thousands of its buildings and tens of thousands of its inhabitants.

He then asks: "Does one feel any pity or compassion for the poor devils about to die?" Then he answers his own question: "Not when one thinks of Pearl Harbor and of the Death March in Bataan." This article, included in his Pulitzer Prize award, failed to distinguish between the civilians about to die and the military combatants at Pearl Harbor and Bataan. It shattered *The Times* self-advertised principle of giving the news impartially. And it voiced revenge for Bataan's Death March, rather than the saving of U.S. troops' lives, as a justification for dropping the plutonium-laced bomb.

Besides the lack of professionalism, Loyola University journalism professor Raymond A. Schroth, a half century later, criticized this passage. Schroth wrote that more than any journalist alive, Laurence should have known what the atomic bomb could do to human beings. Yet, Laurence calls this weapon "a thing of beauty to behold" and the explosion from it a "luxuriant flowering," "a creamy foam," and "a thousand Old Faithful geysers." Schroth argued that

Laurence's article when read fifty years after the war was, by any civilized standards, "remarkable for its moral obtuseness."<sup>98</sup>

For those on the receiving end of the Fat Boy bomb in Nagasaki at 11:02 a.m. on August 9, their world became unimaginable. The resident doctor in the Urakami tuberculosis clinic housed in a Catholic theological school of the seaport city with Japan's largest Christian community, Dr. Tatsuichiro Akizuki had just pulled a needle out of the chest of a patient when a blinding white flash of light appeared. Then piles of debris slammed into his back and throughout the consulting room. Huge fires on the horizon were blazing ferociously at the Convent of the Holy Cross and the Mitsubishi Ordnance Factory, which had manufactured the torpedoes used in the Japanese attack on Pearl Harbor four years earlier. Inside the hospital, cries of help came from patients emerging from the rubble and from neighbors. One was Zenjiro Tsujimoto, a gardener who had been picking pumpkins for patients. His hair was singed; his eyelashes burned off, his shirt disintegrated from the heat. He begged for water. His only audible words, as Dr. Akizuki describes in an excerpt below: "I'm burning."

**DR. TATSUICHIRO AKIZUKI'S NAGASAKI SOON  
AFTER THE FAT MAN PLUTONIUM BOMB EXPLODED**

As time passed, more and more people in a similar plight came up to the hospital—ten minutes, twenty minutes, an hour after the explosion. All were of the same appearance, sounded the same. 'I'm hurt, *hurt!* I'm burning! Water!' They all moaned the same lament. I shuddered. Half-naked or stark naked, they walked with strange, slow steps, groaning from deep inside themselves as if they had traveled from the depths of hell. They looked whitish; their faces were like masks. I felt as if I were dreaming, watching pallid ghosts processing slow in one direction as in a dream I had once dreamt in childhood.

The ghosts came on foot uphill towards the hospital, from the direction of the burning city and from the more easterly ordnance factory. Worker or student, girl or man, they all walked slowly and had the same mask-like face. Each one groaned and cried for help. Their cries grew in strength as the people increased in number, sounding like something from the Buddhist scriptures, re-echoing everywhere, as if the earth itself were in pain.<sup>99</sup>

**"Let There Be Light":  
Selling Death and Destruction**

On September 26, just 15 days after publishing its A-bombing-



of-Nagasaki exclusive, *The Times* began publishing the ten-article series in which Laurence chronicled the birth of the atomic bomb and explained how it was made. One of Laurence's major assignments for the U.S. government, this series would not be a *Times* exclusive. As previously mentioned, the series, which was written for the government, would instead be distributed on behalf of the government by *The Times*, free of charge, to newspapers throughout the country. *The Times* reproduced the series as a pamphlet for use in schools and for the public.<sup>100</sup> Released six weeks after World War II had ended, the series included Laurence's exclusive eyewitness accounts of the super-secret Trinity shot on July 16, 1945, and visits to the secret cities of Oak Ridge in Tennessee and Hanford in Washington state, where uranium and plutonium were readied. He also described at length the history and science that led to the splitting of the atom and its production into bombs. For this series and for his eyewitness account of the A-bombing of Nagasaki Laurence was awarded his second Pulitzer Prize.

In this birth-of-the-bomb series, Laurence virtually ignored radiation—the defining feature of nuclear weapons that most distinguished them from conventional weapons.

Of the 322 paragraphs comprising Laurence's ten-part series, portions of only six paragraphs mentioned radiation. Three of these mentions, consisting of 17 words, were dropped into his 31-paragraphs exclusive account of the Trinity shot, as described above.<sup>101</sup>

The fourth and fifth mentions of radiation appeared in portions of the 24th and 25th paragraphs of the eighth article, comprised of 32 paragraphs, in which Laurence explained:

The energy emitted in the form of radiation is many thousands of times greater than that generated in all the radium isolated in the entire world prior to the outbreak of the war.

Such a gigantic quantity of radiation would kill any living thing in its vicinity within a fraction of a second.<sup>102</sup>

The final mention of radiation appeared in the second of 18 paragraphs of the ninth article. In this article, Laurence described the new chemical process needed to concentrate the man-made element of plutonium. Then, Laurence explained, to protect those handling plutonium “against the most dangerous radiations ever pro-

duced on earth, plants had to be designed to perform by remote control all the complicated operations involved.”<sup>103</sup>

Laurence’s framing that gave such scant attention to radiation created a void in the readers’ understanding of a significant aspect of the stakes involved in the use and future testing of nuclear weapons. Laurence’s failure to report in any proportional way on radiation misled readers about the nature of the suffering the U.S. bombings had inflicted on Japan and the hazards confronted by U.S. troops stationed in Occupied Japan. It also set the stage for a further lack of understanding when it came to the era of testing in the Pacific Islands, which began only ten months later.

Besides minimizing the existence, persistence and hazards of radiation, Laurence used another device that helped shape readers’ perceptions and outlook for the world’s new atomic order—and to shape them in a way beneficial to the U.S. government. That device was the use of the writing devices of metaphors and imagery that pulled at some of his readers’ cultural-religious biases: biases against non-white races, against oral cultures and against worshipers outside the Judeo-Christian religious tradition. He also added language and images from science fiction, ancient mythology, Euro-American exploration and the U.S. frontier.

Epitomizing descriptions identifying the atomic bomb with the Judeo-Christian tradition is Laurence’s passage describing the instant after the detonation of the first A-bomb in the Trinity test: “It was as though the earth had opened and the skies had split. One felt as though he had been privileged to witness the Birth of the World—to be present at the moment of Creation when the Lord said: Let There Be Light.”<sup>104</sup> Other examples of Laurence’s metaphors and images follow on the next page.

## **Real Reporting from Ground Zero: “A Warning to the World”**

Four years after the Hiroshima A-bombing, the Atomic Energy Commission, then responsible for all U.S. military and civilian nuclear-related activities, estimated that 15 percent of the injuries at Hiroshima and Nagasaki were from radiation.”<sup>115</sup> Three years later, the AEC painted an even grimmer picture when it estimated that

## EXAMPLES OF LAURENCE'S METAPHORS THAT DEFINE REALITY BY HIGHLIGHTING AND HIDING TO SWAY READERS' EMOTIONS<sup>105</sup>

- Racial-hierarchical terminology: "Since we were entering the darkest jungles of the 'dark Africa of matter,' where many an unknown danger awaited us, it was decided to explore the new continent of the atom by several different routes..."<sup>106</sup>
- Cultural-hierarchical terminology: describing the moments after the first atomic bomb detonated: "A loud cry filled the air. The little groups that hitherto had stood rooted in the earth like desert plants broke into a dance, the rhythm of primitive man dancing at one of his fire festivals at the coming of Spring.... The dance of the primitive man lasted but a few seconds, during which an evolutionary period of about 10,000 years had been telescoped. Primitive man was metamorphosed into modern man..."<sup>107</sup>
- Biblical references of damnation: "That cosmic fire that lighted earth and sky for hundreds of miles was a modern version of the Biblical handwriting on the wall to the Japanese and all would-be future aggressors.... You have been weighed and found wanting."<sup>108</sup>
- Christian-only references: "the cosmic trinity of matter, energy and the velocity of light."
- U.S. patriotic symbols: comparing the great mushroom cloud that "for a fleeting instant took the form of the Statue of Liberty magnified many times."<sup>109</sup>
- U.S. myth in describing the caravan of trucks headed for Ground Zero: "Here on trials [sic] hallowed by pioneers of other days who opened new frontiers and did not rest until they conquered a continent, 'covered wagons' were rolling again through the night on their way to open still newer frontiers...in space."<sup>110</sup>
- European discoverers' explorations: "We were on the road to the fabled golden seven cities of Cibola, sought in vain by Coronado on trails not too far away from the area we were traversing."<sup>111</sup>
- Ancient Western mythology: "We, too, were headed for adventure, argonauts on the way to a golden fleece richer by far than Jason ever found."<sup>112</sup>
- Western scientific tradition: "the greatest challenge by man against nature"<sup>113</sup> and "the greatest miracle of modern alchemy, to create two entirely new elements, neptunium and plutonium."<sup>114</sup>

roughly 30 percent of those who died at Hiroshima—or about 60,000 persons—had received lethal doses of nuclear radiation.<sup>116</sup> Deaths from radiation began about a week after exposure and reached a peak in three to four weeks.<sup>117</sup>

If it took four years for the AEC to make this assessment and then three more to update it, how can reporters be chastised for “omissions” at the time? The answer is as clear as it is devastating. What follows is the story of one reporter who did know, how he knew about the radiation deaths and injuries as they were unfolding, and his struggle to get the word out just as U.S. information policy on the effects of atomic weapons began to take shape in Occupied Japan. Elements of this policy were extended months later to the U.S. peacetime policy related to press coverage of nuclear tests in the U.S.-affiliated Pacific Islands.

That lone reporter was Wilfred Burchett, the first Allied journalist to visit Hiroshima after it was leveled by the atomic bomb on August 6, 1945. An Australian working for Britain’s largest circulation daily, the *London Daily Express*, Burchett wrote that U.S. information policy in Occupied Japan was “to stress only the enormous destructive power of the Bomb against material objectives while attempting to cover up what it did to human victims.” But Burchett indicates it was decades before he and others would become aware of the full scope of these information policies. When Hiroshima was so devastated by the atomic bomb that it was then nearly isolated from the remainder of the country, he described himself as getting “unwittingly caught up in the early stages of the cover-up operation designed to hide what happens to animate beings” who survive atomic weapons explosions.

As Burchett described it, implementation of the U.S. information policy in Japan, amounting to “a great cover-up conspiracy,” evolved to include:

- the use of “hand-picked American journalists flown directly from Washington to report on the devastating power” of the atomic bomb;
- denial by prestigious official sources of any journalistic or other accounts that revealed the delayed adverse effects of the atomic bomb, including radiation, on its human survivors;

- “a total ban on Japanese journalists or scientists making any reports whatsoever about the fate of A-bomb survivors in Hiroshima or Nagasaki”;
- censorship of and a ban on reports and treatises about treating A-bomb-related symptoms; this ban was based on a September 6th directive from the General Headquarters of the Occupation Forces “that people likely to die from A-bomb afflictions should be left to die”—that they were not worth medical attention.<sup>118</sup>

The beginning phases of this U.S. information policy began to encircle Burchett after he visited Hiroshima hospitals and wrote an article on “the Atomic Plague,” a mysterious sickness killing people a month after the dissipation of the searing blast and heat of the atomic bomb. His published article attributed this sickness to “a poisonous gas still issuing from the earth soaked with radioactivity by the split uranium atom.”<sup>119</sup> Under a headline announcing “a warning to the world,” Burchett’s atomic-plague article that had been cabled to London, was published prominently in the *London Daily Express* on September 5 and then was given free to other newspapers worldwide for re-publication.

Overcoming many obstacles, Burchett had entered Hiroshima on September 3 and wrote an article about the after-effects of the atomic bomb about a month after it was dropped. While still the lone Allied journalist at Ground Zero in Hiroshima, Burchett reported, he was soon joined by a throng of other U.S. journalists, who were carefully shepherded by high-level military public relations officers and flown in on an armed forces plane. He alerted a colleague: “The real story is in the hospitals.”

What Burchett had found there was described in his *Daily Express* article as follows:

In these hospitals I found people who, when the bomb fell suffered absolutely no injuries, but now are dying from the uncanny after-effects.

For no apparent reasons their health began to fail. They lost appetite. Their hair fell out. Bluish spots appeared on their bodies. And then bleeding began from the ears, nose and mouth.

At first, the doctors told me, they thought these were the symptoms of general debility. They gave their patients Vitamin

A injections. The results were horrible. The flesh started rotting away from the hole caused by the injection of the needle. And in every case the victim died.<sup>120</sup>

In hasty visits to Hiroshima, most journalists wrote about the destroyed city, characterizing the atomic bomb as just vastly more powerful than conventional ones. Visiting the hospitals wasn't on their list.

When Burchett did arrive in Tokyo on September 7, he was rushed by a colleague to a U.S. military press conference. There the briefing officer was contradicting Burchett's Hiroshima scoop that people were still dying from the after-effects of the atomic bomb. Burchett asked for explanations of why Japanese who had not been in Hiroshima during the atomic attack were getting sick and why fish were still dying in the streams a month later. The spokesman responded: "I'm afraid you've fallen victim to Japanese propagan-da."<sup>121</sup> Four years later, as noted above, the AEC reported the radiation-induced deaths peaked three or four weeks after exposure, or just about the time Burchett was investigating Hiroshima's hospitals.

*The Times* carried two articles, an editorial and a long "News of the Week in Review" article diametrically opposed to Burchett's account. One article, datelined Tokyo and published September 13, was based on the version of a U.S. general who had just returned from inspecting Hiroshima; he "categorically" denied that the atomic bomb had produced a dangerous, lingering radioactivity in the ruins of the city.<sup>122</sup>

From New Mexico, Laurence wrote a stronger article that was published September 12 on Page 1 under the dateline of "Atomic Bomb Range." That range was the world's first Ground Zero where Laurence had eyewitnessed just two months earlier the elaborate precautions taken by Groves and his team to monitor, measure and guard against radioactivity and its fallout. Laurence had returned to Trinity's Ground Zero with 30 other photographers and reporters on a press trip organized by U.S. officials on September 9, only four days after Burchett's warning-to-the-world headlines about Hiroshima's deadly radioactivity hit the newsstands in London. The masterminds of the first atomic explosion here—Groves, Oppenheimer and other scientists—had brought in the journalists to demonstrate how safe the Trinity test site was from radioactivity and to counter

reports like Burchett's about radiation deaths in Hiroshima.

Laurence's lead fulfilled Groves' purpose. The *Timesman* wrote: "This historic ground in New Mexico, scene of the first atomic explosion on earth and cradle of a new era in civilization, gave the most effective answer today to Japanese propaganda that radiations were responsible for deaths even after the day of the explosion, Aug. 6, and that persons entering Hiroshima had contracted mysterious maladies due to persistent radioactivity.

"To give a lie to these claims, the Army opened the closely guarded gates of this area for the first time to a group of newspaper men and photographers to witness for themselves the readings on radiation meters carried by a group of radiologists, and to listen to the expert testimony of several of the leading scientists who had been intimately connected with the atomic bomb project."<sup>123</sup>

Using multiple layers of sources, Laurence then paraphrased Groves, who paraphrases his deputy in Japan, who paraphrases Japanese sources who said that radiation in Hiroshima was much less than the tolerance levels, which means, the general is quoted as saying, "You could live there forever."<sup>124</sup>

But undermining, if not contradicting, Groves' exaggerated claim was a curious feature of the press trip. Laurence explained it in the ninth paragraph of his article continued to Page 4: "Before entering the area white canvas sandals to pullover our shoes were furnished to us. This, General Groves explained, was to make certain that some of the radioactive material still present in the ground might not stick to our soles." On the next page, *The Times* ran a photo of the dignitaries standing at Ground Zero. But building on the misrepresentation that Laurence threads through his article, *The Times* had cropped the photograph just above the ankles of the dignitaries—thus eliminating the white sandals that they wore.

In contrast to *The Times* misleading cropping, *Life* magazine published a photograph of Oppenheimer and others wearing white booties over their shoes walking around Ground Zero. And in that same issue published 15 days after the press trip, it stated, "The New Mexico crater was still definitely radioactive." To prove its contradiction of the officials and their radiometric readings, *Life* published another photograph of two dime-size circles against a jet-black background. Its caption explained: "Crater's radioactivity is proved by

the photographic film exposed to fragments. The film is affected by radioactivity as it would be by light."<sup>125</sup> Citing scientists guiding the newsmen, Laurence had written that even in the very center of this crater at Ground Zero "it would take 600 hours of continuous habitation to produce fatal results."<sup>126</sup>

## Standing Sandal-less for 30 Minutes Inside Trinity's Ground Zero

Not all of the visitors were issued white canvas sandals. For a photo-op to underscore his claims about safety from radioactivity, Groves asked his military driver, Sergeant Patrick Stout, to stand in the huge crater at Ground Zero and pose for cameras. Stout did just that for thirty minutes. Then, 18 years later, in April 1967, he was stricken with leukemia. Before dying two years later, Stout told his wife the cause of his death was his thirty-minute stand-upper at Ground Zero.<sup>127</sup> Decades later, Ground Zero is still fenced-in to protect wandering tourists from lingering radioactivity.<sup>128</sup>

The day after Laurence's article, a *Times* editorial echoed his on-the-scenes account as did a "News of the Week in Review" article on Sunday.<sup>129</sup> *The Times* published a string of other articles denying or minimizing the harmful effects of radiation.<sup>130</sup>

Burchett's experience with U.S. information officials and his solitary "warning to the world" were given credence in 1985 by Paul Boyer. A well-published U.S. historian, Boyer said the denial of Burchett's article and the framing of those first stage-managed U.S. news reports from Japan influenced the formation of the nation's overwhelming public approval for the only two times in history that atomic bombs were dropped on civilians.<sup>131</sup>

What Boyer describes as stage-managed news and U.S. censorship of Japanese materials prevented circulation of information about radiation and other atomic bomb after-effects not just to lay and elite newspaper readers but also to U.S. military doctors assigned to Japan shortly after the atomic bombings. One such Navy doctor, James Yamazaki, a Japanese American trained as a pediatrician, recalled in 1995 that he had been kept in the dark for decades by other U.S. doctors about the background and reports of eminent medical researchers who had compiled useful data in Nagasaki and



Hiroshima in the days immediately after the atomic bombings. It was 43 years before Yamazaki says he saw one such excellent report written by Japanese doctors and atomic bomb survivors.<sup>132</sup>

Others argued, as previously discussed, that the news management and censorship occurred in Occupied Japan to hide from the world the barbaric, immoral slaughter of so many civilians in such a devastating single blow. An even more immediate reason—to hide the effects of radiation from U.S. servicemen generally—surfaced later in a memorandum on “Military Medical Problems” sent on June 27, 1951 to high government officials by Dr. Richard Meiling, chair of the secretary of defense’s top medical advisory group. The memorandum began, “Fear of radiation is almost universal among the uninitiated and unless it is overcome in the military forces it could present a most serious problem if atomic weapons are used.”<sup>133</sup>

One of the earliest U.S. servicemen to face the serious problem of radiation caused by A-bomb use was Charlie Clark. He entered Nagasaki during the morning of September 23, 45 days after the dropping of the Fat Boy bomb, when the city was “barren, without form. No noise. No nothing.” Then an 18-year-old enlisted man working as an electrician mate, he was among the first Navy specialists assigned to set up electrical and communications systems before troops of the Second Marine Division came ashore to occupy the city. “I was told nothing about radiation or the consequences of atomic bombing,” he recalled in an interview. Nor was he or any of his colleagues issued masks to protect their faces or film badges to measure radiation exposure.

Twenty four years later, after ending his service with the Navy, Clark developed a pimple. “My daughter squeezed it and it bled and bled,” he explained. Since then, the 76-year-old Hawaii resident has had removed from his face and neck 141 cancers so far “and the numbers will jump more,” he explained. “My dermatologist tells me those numbers will never stop jumping the rest of my life.” His 52-year-old daughter, Cheryl, suffers from a kind of cancer over her eyes that prevents her going into the sunlight. His 19-year-old granddaughter, Katie, suffers from a pink-and-white blotching of her skin. These afflictions of his descendants are caused by his exposure to radiation that affected his sperm before conceiving his daughter, he maintains, based on the views of family doctors;<sup>134</sup> a U.S. govern-

ment institute has recommended against studies of the offspring of atomic veterans.<sup>135</sup> As one of approximately 400,000 U.S. servicemen exposed to radiation in Occupied Japan and atomic testing, Clark maintains that 58 years after the A-bombing of Nagasaki, the U.S. government still “doesn’t want average citizens to know about the hazards of radiation and atomic weapons. If they only knew, it would cause nothing but panic.”

One newsman named John Hersey had not seen the “rain of ruin” at Hiroshima or heard Burchett’s advice: “The story is in the hospitals.” But a year later, this American writer for *The New Yorker* followed up Burchett’s “atomic-plague” story with his own account of what happened at Hiroshima at 8:15 a.m. on August 6, 1945. His story detailed the lives of six survivors of the blast and shock of the atomic bomb and the resulting fire. But Hersey also devoted some attention to radiation-induced illness. In human terms, using estimates of Japanese officials, Hersey reported at least 100,000 had lost their lives in the bombing. About 25 percent of these were from direct burns from the bomb, about 50 percent were from other injuries and about 20 percent were as a result of radiation effects.<sup>136</sup>

### JOHN HERSEY ON U.S. CENSORSHIP IN POST-HIROSHIMA JAPAN

General MacArthur’s headquarters systematically censored all mention of the bomb in Japanese scientific publications, but soon the fruit of the scientists’ calculations became common knowledge among Japanese physicists, doctors, chemists, journalists, professors, and, no doubt, those statesmen and military men who were still in circulation. Long before the American public had been told, most of the scientists and lots of non-scientists in Japan knew—from the calculations of Japanese nuclear physicists—that a uranium bomb had exploded at Hiroshima and a more powerful one, of plutonium, at Nagasaki.”<sup>137</sup>

The magazine sold out immediately, was reprinted as a book titled *Hiroshima* and has never since then been out of print. Einstein was among those requesting reprints. Looking back a half century later, the author of a book accompanying a Smithsonian Institution exhibition of the press coverage of World War II described Hersey’s work as “the most-talked-about journalistic accomplishment in the

---

annals of World War II, and perhaps in the whole history of the Fourth Estate.”<sup>138</sup>

Shortly before *The New Yorker's* Hiroshima issue appeared on the newsstands on August 31, 1946, two more atomic bombs had exploded about 2,700 miles to the southeast of that annihilated city at Bikini Atoll in the Marshall Islands.

# *From Orality to Infernos*

## *“These Were the Forgotten People”*

Almira Ainri of the Marshall Islands was 10 years old when she was unwillingly catapulted into the atomic age. Then, in 1946, no one on earth could have imagined that in time Almira and her neighbors would enter the annals of medicine as unique examples of the extent and duration of the effects of localized radioactive fallout on humans.<sup>1</sup> And, no one on earth could have imagined that now decades later, the radioactive fallout lingering from the 67 nuclear weapons tests in or near Almira’s Marshall Islands would still be wafting down from the heavens. As one historian explains, the Pacific Islanders who have experienced these first peacetime nuclear tests are significant because “they have already lived in what might be our common future.”<sup>2</sup> *Times* reporting of this common future becomes more meaningful when examined in the context of the Marshallese like Almira who lived closest to the Ground Zeroes of the Pacific.

As the U.S. Navy prepared to explode the first peacetime atomic bomb—and the fourth one in history—Almira and 100 other inhabitants of Rongelap Atoll in the Marshalls were loaded in June 1946 onto ships. Then the islanders were transported to the more southerly Lae Atoll to safeguard them from the effects of the explosion 80 miles away at Bikini Atoll. Returning later to Rongelap, Almira recalls seeing in the distance 82 of the 95 battleships that survived at Ground Zero the two tests in the July 1946 detonations. A few months later, she says, an airplane dropped leaflets telling islanders on Rongelap without explanation to avoid eating seafood from the waters near Ground Zero. But no one warned her or the other children not to swim in the adjacent waters nor to play with the discarded sailors’ outfits.

Eight years later, Almira was less fortunate. Then, she and other Rongelapese were not evacuated from their ancestral home-

Photo: Chris McDonough



Almira Ainri, whose life has traversed an oral-tradition culture to the H-bomb age, is unable to live on her native island of Rongelap, which was dusted with radioactive fallout in 1954.

lands before the U.S. military unleashed the Bravo shot, one that became the most powerful bomb in U.S. nuclear history. This full-fledged hydrogen bomb was 1,000 times more powerful than the weapon that had devastated Hiroshima nine years earlier. Bravo created a radioactive cloud that plumed over 7,000 square miles—about the size of New Jersey—and contaminated the downwind area around Rongelap with near-lethal fallout, making the Rongelapese such medical marvels and degrading their island so it is uninhabitable today. Documented reasons for U.S. military and civilian officials' neglecting to remove the islanders before the unpredictable Bravo shot were the high cost and logistical complexity of doing so. As detailed in Chapter 9, the Bravo-dusted islanders were transported to a U.S. Navy clinic where they became human subjects studied in Project 4.1 a study classified for 40 years to avoid the risk of possible adverse publicity.<sup>3</sup>

### **“Like Needles Over My Whole Body”**

Then 18 years old, married to become Almira Ainri Matayoshi and pregnant with her first child, she was asleep about 6 a.m., on March 1, 1954, when she was awakened by the brightness and noise of the inferno as hot as the core of the sun. “The whole island would shake,” she recalls. The air was gray. From the sky descended snow-like particles so thick she could hardly open her eyes. They stuck onto the islanders' hair conditioned with coconut oil. U.S. servicemen with Geiger counters arrived a day later and found the islanders weak and vomiting; acute radiation sickness had set in. Fifty hours or more after Bravo's detonation, the 239 inhabitants on or near Rongelap and the nearby island of Utrik were moved out, mostly on ship, or by airplane for children and pregnant women like Almira, to the military base at Kwajalein.<sup>4</sup> There, they were scrubbed every day with special soaps. The heavy pressure of the water over Almira's blistered skin felt “like needles over my whole body and like I was burning.” Their clothes were taken and exchanged for Navy t-shirts and boxer shorts with its slit in front that “in Marshallese custom was really inappropriate” for women to wear while mingling with men.

After three years of living at Majuro Atoll, the Rongelapese were returned to their ancestral homelands, where they resided for

28 years until 1985. During these years, Almira gave birth to her first son, Robert; the radioactive fallout from Bravo had so damaged his thyroid glands that he became dwarfed; they were later removed, requiring him now to take medicine “forever.” A year later, Almira explains, she gave birth to “a bunch of grapes, that had to be pulled out of me.”<sup>5</sup> Many other Marshallese women also experienced these fetuses so deformed they are described as “jelly babies” or “grapes,” and, as a consequence Almira says, “people didn’t want to shake our hands for fear we would contaminate them.”<sup>6</sup>

Almira’s next two children appeared normal but died within several days after birth. The thyroid glands of another son, Alex, are so damaged he also takes medicine. If he runs out of medicine, he becomes very weak and his eyes roll up. She says, “He’s like a bird dying.” Three other children have no detectable nuclear-related diseases. Almira has had six incisions in her thyroid gland and is awaiting results of a biopsy on two new growths there. For these medical conditions that the U.S. government has officially admitted were caused by its nuclear weapons testing, Almira and two sons receive regular installments of personal-injury compensation.<sup>7</sup> Her husband is deceased.

Radiation also changed the life of Norio Kebenli, as he explains:

“We used to love singing! Christmas time was always the most important to us because we come together and sing. Now no one is interested in participating in the traditional Christmas get-togethers anymore because we can’t sing. ... It’s like we’re in a constant state of puberty where our voices keep cracking.”<sup>8</sup>

Because Rongelap is still too radioactive for them to inhabit, Rongelapese now live in four scattered locations in the Marshalls. Almira now lives in Honolulu in an apartment furnished with pandanus floor mats and wallhangings from her former traditional lifestyle, mixed in with a television set and phone. Her home island lies within the Republic of the Marshall Islands, which consists of about 1,225 islands and islets extended over 750,000 square miles, or roughly the size of Mexico. Half way between Hawaii and Australia, the Marshalls are thought to have been settled about 4,000 years ago by seafaring peoples of unknown origins. Today they are home for 50,000-plus islanders. The Marshalls lie north of the equator, although they are often mistakenly included in the romanticized label

Photo: Chris McDonough



Almira Ainri points to a growth on her thyroid gland that is presumed by the U.S. government to be caused by its Pacific nuclear weapons testing.



of South Seas Islands. The Pacific Ocean covers about one-third of the surface of the earth and equals the size of all of its land mass.

Besides being memorialized in medical annals, islanders like Almira are exemplars whose lives were stretched between the extremes of their traditional oral culture and the nuclear age. The differences between these two cultures are vast. Unlike the bomb makers who succeeded in transforming, even conquering, the atomic core of nature's elements, Marshallese lived in harmony with nature. On Rongelap they hold vestiges of their indigenous religion devoted to the natural gods, such as Jebro, the god of breadfruit or Lawi Jemo, a tree god. They sing chants to the sharks before fishing and have established sacred bird sanctuaries, which can be approached only by men and only by speaking in their ancient, esoteric language. On Bikini the elders—and soon afterward the whole community—reluctantly converted to Christianity when a Protestant missionary arrived about 1900. In being converted, they gave up considering Worejabato The Reef God as a deity who drove away evil spirits and human aggressors. But his medicinal powers still reign supreme for them. Today, when Bikinians visit their atoll, even for the shortest stay, one of their most important tasks is to fill their bottles with seaweed and lagoon water from Worejaboto to gain his medicinal powers.<sup>9</sup>

Unlike the bomb makers' thinking and writing in scientific formulas, Marshallese rely heavily on their oral tradition. It links the spoken word with what scholar Walter Ong calls "the living present" that is "close to the human lifeworld" and that thus forms close-knit groups.<sup>10</sup> For example, before being dispossessed by radioactivity, the Rongelap community regularly came together in the July-December season to preserve breadfruit for ceremonies, gifts and family use. When numerous fish came near the islets, islanders joined forces to catch as many as possible and then preserved them for food or gifts for ruling chiefs. Although Marshallese can and do write, many of their customs and much knowledge is transmitted orally, often through ancient chants, in the case of navigational instruction, or by observing their elders.

Almira remembers with fondness the traditional lifestyle that predated Bravo. "It was very different and a beautiful life. Hardly anyone got sick. It was a peaceful life. We ate lobster and crab from the islets and big giant clams."<sup>11</sup> Watching and working alongside elderly women,

Almira learned to weave pandanus floor mats or wall hangings.

Now exiled from their ancestral islets and lagoons and placed in a far different environment, Marshallese can no longer transmit knowledge to their youth. As Ken Kedi told researchers in 1999, "Rongelapese youth can't climb trees, but are familiar with Coca-Cola. Youth used to keep busy and fit doing work in their environment, such as making copra. They can't do that in the urban areas." Even if they eventually resettle on Rongelap, they may not have the knowledge of customs and skills needed to survive.

This peaceful life existed in the spartan environment of low-lying coral atolls consisting of numerous islands or islets, often enclosing a lagoon, which as anthropologist Robert C. Kiste explains, "originated as fringing reefs around volcanic peaks that sank beneath the sea millions of years ago." Some islets making up the 29 atolls in the Marshalls barely rise above the sea, thus making them vulnerable to storms; the highest elevation is only ten meters above the sea. The land alone provided too few resources for human existence. Thus, the lagoon and surrounding ocean were essential to furnish the marine creatures that sustained Marshallese lives and provided their main source of protein.<sup>12</sup>

## Mapping the Invisible with Stick Charts

To survive, Marshallese became some of the best navigators in the Pacific. They developed skills to observe the stars and the sea and used knowledge transmitted through chants from their ancestors and diagrams called stick charts to teach and memorize the different swells of the sea. Stick charts made of coconut strips were used to construct various kinds of abstractions that depicted swells as they were deflected by an island, which sometimes master navigators could sense up to 20 miles away. Today, sailing experts assert, "The sport of outrigger canoe racing is more important to Marshallese than the Super Bowl to Americans."<sup>13</sup>

It is this fragile land-lagoon environment, so vital to Marshallese, that was destroyed or degraded with radioactivity during the U.S. Pacific nuclear weapons testing and remains largely inhabitable nearly 60 years later. Land is scarce and precious. Moreover, the northern atolls of Bikini and Enewetak receive only

about 20 inches of rainfall a year, making conditions there even harsher. Despite its expanse in the ocean, the Marshalls consist of a land area of only 181 square miles, about the size of Washington, D.C. And the land is not very productive. Unlike the lush vegetation on islands formed by volcanoes, such as Hawaii, only a few plants grow well in the coral limestone and sand of the Marshalls: trees bearing breadfruit, which is prepared in many ways and also preserved, pandanus, arrowroot and the ubiquitous coconut, which is used for 1,000 different products. As Johnsay Riklon told a research team in 1999, "While the United States might look at a coconut tree and see the value of the copra, we see medicine, toys for our kids, food, weaving materials, sails and canoes. Nothing is wasted. One coconut tree, similarly to a pandanus or breadfruit tree, can almost support a family with all of its needs." During the nuclear testing period and continuing today, these types of plants absorbed radioactive cesium and strontium from the soil, then passed it through the food chain to consumers, who became at risk of cancer.

### **Land as "A Living Thing That Is Part of Your Soul"**

Besides being an economic mainstay, land is also the basis of social organization and spiritual value. It was important for family and clan burial grounds and thus provided such an important link to ancestors that Marshallese would not willingly accept other land as a substitute. The concepts of selling, leasing or renting lands were introduced by outsiders and selling of lands to non-indigenous people was prohibited. As Wilfred Kendall explained at a 1999 meeting in Majuro, "The people here have tenaciously held on to land. The resource people treasure most is land. Land speaks of your being, essence, reason for living. You relate to the world in terms of land. ...How do you put a value on something that people consider as a living thing that is part of your soul?"

The Marshallese give place names to their land and marine features like seamounts and reefs that perpetuate the history and the cultural significance of their property. Some places are reserved for magic, others for birthing, others for collecting medicinal products.

On brief visits to Rongelap, Almira shows her son, James,

where the family's land is so that he can care for it if Rongelap is eventually resettled. Almira is distressed that in her hasty evacuation by U.S. Navy personnel from Rongelap after the Bravo detonation, she lost important papers. "When they came to evacuate us after the bomb, they told us not to take anything at all—none of our possessions," she told anthropologist Holly Barker in 2001. "So, I left everything behind. I left the 'peba in kallimur' (papers with promises) signed by my grandparents that showed I had land. When we returned after a few years, everything in our houses was gone. Now I can't go to court and prove I had land because the papers are gone."<sup>14</sup>

## 500-Plus Years of Foreign Control

Two years after Columbus discovered North America, the Marshalls came under the beginning of a half-millennium of foreign control. Over time, the control varied from nominal to nuclear. In 1494, the Treaty of Tordesillas ceded to Spain all of Micronesia, which means "little islands," a Western label for the Marshalls and the neighboring clusters of the Carolines and the Marianas. Although Catholicism and Hispanic culture took hold in Guam and the Marianas to the northwest, the Marshalls were little affected. In 1788, British Naval Captain William Marshall sailed through the area and his name was given to the islands.

In the next century, several German trading companies were established and, in 1878, the German Navy entered into a treaty with inhabitants of some islands for special commercial privileges. Seven years later, Germany paid \$4.5 million to Spain and annexed the Marshalls. The Germans' interest was primarily economic, establishing copra production by the drying of coconuts, thus beginning the transformation of the Marshallese from an economy of self-sufficiency to one based on wages integrated into the world economy. Some Chinese must also have sailed into the Marshalls. Almira describes her great-grandfather as a Chinese gentleman who wore a long gown and long hair.

The next group to sail in also left a lasting impact. In 1857, the Rev. Hiram Bingham Jr. of the American Board of Commissioners—the Congregational Church of New England—arrived and created an outpost on Ebon. Later on Rongelap, the Congregationalist mis-

sionaries built a church and staffed it with a Marshallese minister, who also served as teacher. Almira remembers sitting on a pandanus mat on the floor to learn reading, writing and the Bible. As a youngster, she was required to attend church every Sunday and Thursday. Attending church was very important. "Those that missed got a scolding from elders."<sup>15</sup> Because the Bible was one of the few books translated into their native language, Marshallese were loud and passionate in their singing and praying in church.

But the missionaries were interested in more than religion. They also discouraged liquor, cigarettes and native dances, which they considered vulgar, tried to suppress sexuality and advocated Western-style houses. As anthropologist Robert C. Kiste notes, "Their message had more to do with hell-fire and brimstone than compassion and neighborly love."<sup>16</sup>

The missionaries also introduced Western-style clothing to cover the top half of women and to replace the skirts of softened, beaten and woven pandanus leaves worn by both sexes. Even so, Almira, as a youngster, still learned from her elders how to weave these mats as well as baskets and balls they played with. Using bleached coconut leaves, she still makes a plum-sized flower with five petals and delicate stamens that she presented as a gift to an acquaintance. Though some traditional techniques have been lost, Marshallese handicrafts today are considered among the world's finest.

The first images of the Pacific Islanders for Westerners came from the writings of these explorers and missionaries. First came the image of "the noble savage," suggesting a closeness to nature, including Biblical notions of the Garden of Eden. Second came the opposite image created by Protestant missionaries, who described the islanders as pagans needing civilization. Third came the image of the islands as a scientific laboratory with its people, plants and animals serving as specimens to be studied.

## Close Encounters with Nuclear Racism

The role that the Pacific Islands and its people came to play in scientific discovery reached its apex with the 1954 Bravo shot, with 1,000 times the explosive yield of the weapon that devastated Hiroshima. Not only in the U.S.-affiliated Pacific, but also world-

wide, nuclear-bomb making and testing had a disproportionately damaging impact on indigenous and colonized peoples. The result might be called nuclear racism, or the subordination of one race or ethnic group by another through nuclear-related institutional, political and military policies or cultural and ideological beliefs.

As environmental and health researcher Arjun Makhijani points out, nuclear testing by France and Britain were conducted in their Pacific colonies and by the Soviets and Chinese in areas of their nations containing ethnic minorities. And significant U.S. nuclear waste repositories are being sited in the Southwest near Native American homelands, not far from the sites where the bombs were tested that produced the original waste. The same pattern persists for uranium mining.<sup>17</sup> After World War II when scientists were pondering what to do with the Los Alamos laboratory that had developed and tested the first atomic bombs, J. Robert Oppenheimer is quoted as saying, "Give it back to the Indians."<sup>18</sup> His statement may highlight the contribution made by the Native Americans to the nuclear age, even when they had been relegated to the nation's most desolate region.

Moreover, nuclear weapons effects discriminated more severely against persons with darker pigmented skins or the chocolate-colored eyes typified by Pacific Islanders or Japanese. Through a quirk of nature, darker colors absorb heat more deeply and readily—and with severe results—than do lighter hues. The heat generated from an exploding nuclear weapon equals that at the core of the sun, about 10 million degrees Centigrade.<sup>19</sup> The A-bombing of Hiroshima generated such extreme temperatures that they were absorbed by one person waiting outside a bank and caused his or her silhouette to be imprinted into the concrete wall of the building just before the human was incinerated.

In 1953, researchers with the Air Force's School of Aviation Medicine found that an officer with darkly pigmented eyes was the only one to suffer from the flash of the largest Nevada test to date when he was positioned in a government experiment seven miles from Ground Zero, award-winning journalist Eileen Welsome reports. That test, codenamed Climax, exploded with a force of 61 kilotons or four Hiroshima-size bombs. That was far less dangerous than the flash from hydrogen tests taking place in the Pacific.

Researchers estimated the 1954 Bravo shot, the most powerful one in U.S. nuclear history, could be seen by islanders, aircraft crews and servicemen for 1,000 miles. After Bravo's detonation, equal to 1,000 Hiroshima-size bombs, Welsome notes, the deputy commandant of the Air Force School, Colonel John McGraw, urgently notified the Atomic Energy Commission: "It can be assumed that all persons who viewed the actual fireball without eye protection have received permanent chorio-retinal damage." Thus, islanders and Japanese shipping crews who witnessed Bravo may have suffered eye damage because they were given no advance notice of the 6:00 a.m. explosion of the Bravo shot—or any of the other 85 U.S. Pacific shots studied here—and had been left uninformed about eye protection. No retinal burns were reported after Bravo-dusted islanders were medically examined for that condition.<sup>20</sup>

Early press coverage of the Pacific was often simply an extension of international news about European powers. *The New York Times*, before it was purchased by Ochs in 1896, chronicled the activities of the colonial powers in the Pacific, where they were contesting U.S. territorial and commercial expansion. *The Times* tended to follow the U.S. trade and flag and published even more articles when both of these were under challenge.

Underpinning these Western images and mainstream news coverage of Pacific Islanders was the early sense of racial superiority held by Euro-Americans, based on their religion and their written mode of communication. Protestant missionaries and others slighted the benefits of the oral tradition and held to the deeply seated belief that without writing there is no civilization. Perceptions by Christians that their religion was superior to those of oral tradition peoples were later supplemented by "scientific racism," or pseudo-scientific concepts of a hierarchy of races with whites at the top and dark-skinned peoples at the bottom. Vestiges of these biases continue today. Up to the mid-1990s, less U.S. mainstream news coverage had been given to U.S.-affiliated islands in the Pacific than to the nation's least covered states, despite their unique role in World War II in the Pacific and in U.S. nuclear history, media scholars found. Not only the mainstream news media have been deficient; communication scholars in their studies have also been criticized for slighting Pacific Islanders.<sup>21</sup>

By the 1940s, another image of the Pacific Islands appeared as ferociously vicious battlegrounds in which the native peoples were largely invisible. The wartime experience of the Marshalls being caught between two foreign giants had its roots in international developments during World War I. In 1914, Japan captured the Marshalls from Germany and six years later received a League of Nations mandate to administer the islands. While the German interest in the Marshalls was economic, the Japanese interest was strategic in terms of an expanding empire that protected their homeland and extended their economic base. Twenty years later, Japan withdrew from the League of Nations, which had barred fortifying the islands, and began preparing for war by militarizing several islands and developing Kwajalein as a major base. Four years later, replacements for foreign missionaries were denied entry and soon those remaining were discouraged from staying.

On Rongelap, Almira remembers the Japanese as strict taskmasters. Japanese teachers used their blackboard pointers to slap the hands of Marshallese children like her who made "a little mistake." And "if you forgot to bow down to them early in the morning, you would get a beating."<sup>22</sup> Almira can still write her name and count her 1-2-3s in Japanese.

The bombing of Pearl Harbor on December 7, 1941, made Hawaii, and later other Pacific Islands, a dateline for journalists worldwide. But the war stories resulted in little news coverage of the native residents. "The press during the war covered the Pacific, but they didn't cover the Pacific Islanders," anthropology professor Robert Kiste observed. "These were the forgotten people." And the islanders were also often forgotten in military histories, according to anthropologist Geoffrey M. White, adding that their war casualties will never be known adequately or tallied. Referring to places like Kwajalein, he explains, "The residents of small atolls that were the site of military invasions may have experienced the most horrific calamities of war," because they were "unable to leave their tiny habitats."<sup>23</sup>

The Marshalls were the key cluster of islands caught in the middle between heavily fortified Japanese forces and U.S. elements that were swiftly leapfrogging toward Japan in a gigantic sweep from the south. Some atolls were bypassed. But for others, days of heavy U.S. naval bombardment and combat sorties devastated them in prepara-



tion for amphibious assaults by U.S. Marines. Official Naval historian and Harvard professor Samuel Eliot Morison described the battle at Enewetak, whose strategic importance was indicated by the translation of its name: "land between East and West." Its reef is pierced by 40 islets with Engebi containing an airfield and a garrison of 1,200 Japanese soldiers. Engebi was "more nearly pulverized" before the landing of U.S. Marines than any other amphibious assault objective in 1944, Morison wrote. Even so, the Marines lost 85 dead and 166 wounded and 934 Japanese were killed and 16 captured.<sup>24</sup> Later, ten U.S. nuclear explosions took place on Engebi and, in 1968, a misfired rocket motor contaminated part of the island with radioactive beryllium. Its residents are still unable to return home.

Rongelap largely escaped the fighting except for some U.S. bombing on the beaches, many fires of the pandanus trees and the surrender of one Japanese fighter. But, Almira was told many stories about the fighting elsewhere that Rongelapese followed by radio and learned of atrocities against their people. "The Japanese were known to cut their heads off and put them on poles," she says. One missionary was beheaded, Almira recalls, and another missionary and his wife were killed in a fire. <sup>25</sup>

### JOHN HEINE'S REMEMBRANCES OF WORLD WAR II IN THE MARSHALLS

I recall the war vividly, although I was very young, a small child of barely nine years old. One day stands out in my mind. That was when I first saw and believed that the war would be a danger to all of us. All I knew about war was what I had learned from Japanese comics about how they were killing Chinese in Manchuria. But this time I was under the guns of American planes. It was early morning of 4 February. I was sitting outside my parents' house under a coconut tree trying to remember the beatitudes from the Bible in preparation for my Sunday school class when suddenly I heard the guns overhead. I saw two planes diving straight at the end of our island, Jabwot. That was the beginning of World War II in the Marshalls. About one hundred Marshallese people died in that bombing. One Japanese was killed, not from a bullet, but when he bumped into a coconut tree while running away. After that we didn't see any more war for some time. We heard of it, but there was quiet as long as the Americans stopped coming to the island. We did know that the war started with the bombing of Pearl Harbor.<sup>26</sup>

Half a century later, Almira still laughs with her childhood friend, Chiyoko Tamayose, when recounting that as the end of the war approached, Japanese soldiers provided the elders and the chiefs with bayoneted guns for fighting the Americans. Fortunately, the Marshallese had no occasion to use the antiquated Japanese weapons that needed cocking after firing a single shot, a serious disadvantage when used against U.S. machine guns.

## ***Times on the Trust Territory of the Pacific Islands in 1947***

World War II had plunged Pacific Islanders into the bloodiest of conflicts, not of their own making or choosing, but one waged by competing colonial and foreign powers. Yet the ferocity of the Pacific fighting would soon be eclipsed by the testing of unique weapons of mass destruction that would again impact their lives in ways they could not foresee and about which they had not been consulted. The destiny of Almira and thousands of other islanders was decided by policy and diplomatic decisions made half a world away, much of it at the newly formed United Nations (U.N.). There U.S. officials pushed through their proposal to create the Trust Territory of the Pacific Islands (TTPI), a unique strategic trust territory that would be administered by the United States. A new phase had begun in the 500 years of foreign control of the Marshall Islanders and their ancestral homelands.

At the end of World War II, the Marshalls and many of the other Pacific Islands were under U.S. control as belligerently occupied territories captured from Japanese forces. In Washington, top military leaders, remembering the U.S. blood shed in conquering the islands, wanted to retain control. But civilian leaders were pressing European powers to give up their colonies from which they had been routed by Japanese Imperial forces and argued the United States could not appear to be a new colonial power. The two factions in Washington compromised with the TTPI. It provided a civilian framework that military leaders used to deny to others access to vast stretches of the Pacific region and to conduct nuclear weapons tests. Within months, top U.S. leaders in Washington, D.C. began planning to convert Bikini Atoll into an experimental proving ground

for the peacetime testing of future atomic weapons. Thus, in March 1946, besides removing Almira and other islanders from Rongelap, the U.S. Navy also evacuated the inhabitants of Bikini Atoll to make way for atomic weapons tests there that followed three months later. The Bikinians had expected to return home shortly afterward but they are still, decades later, exiled because of radioactivity.

Four months after the first peacetime nuclear tests at Bikini Atoll in July 1946, *The Times* devoted much space and prominence to the transition the U.S. government started to make in transforming the governance of the occupied island chains, including Bikini and Enewetak, from U.S. military occupation to a trusteeship sanctioned by the U.N. The first descriptions of this transformation provided by *The Times* to its readers, including many diplomats and international leaders, were significant in what information they would know—or not know—about U.S. obligations to protect the islanders' health and natural resources while also conducting such awesome nuclear tests.

News items in *The Times* about this transformation began with an article on November 7, 1946, announcing President Truman's proposal for U.S. administration of the Marshalls (pop. 10,600), the Carolines (pop. 35,000) and the Marianas (pop. 24,500) under a U.N. trusteeship that would be U.S.-administered. *Times* coverage ended with an article on July 20, 1947, which told of Truman's signing, two days earlier, an executive order inaugurating an international agreement approved by the U.N. and establishing the U.S.-administered TTPI.<sup>27</sup> During this eight-month period, *The Times* published 30 news items about the transition of governance of the islands from military occupation.

Descriptions used in these *Times* articles provided little context or specific information needed for readers to be informed of the role of U.S. officials in administering the TTPI and in fulfilling their obligations to the Pacific Islanders and the region, according to this writer's close reading of the 30 news items. Four conspicuous themes in *The Times* items were evident.

*The Times* article on Truman's proposal was the day's top Page 1 story on November 7, 1946. "U.S. Proposes That It Rules Pacific Isles," read the main headline, followed by a subhead indicating that the "Trusteeship Would Be Under Our Sole Control," based on the

draft being submitted to the United Nations Security Council and the U.S. Senate, which needed to approve the plan.

The *Times* article focused on the military importance of these islands to the United States, but left unexplained the extensive military powers the nation could gain in an area where atomic weapons testing was already being conducted at one atoll in the Marshalls and where other nations could be excluded from entering. The TTPI was unique in being approved by the U.N. as a strategic trust, which placed it directly under the control of the Security Council where the United States was a permanent member with veto power to block moves that might damage the way it operated. The strategic trust designation also gave the United States extensive military prerogatives but one scholar maintained that these were supposed to be for the purpose of maintaining international peace and security, rather than destructive nuclear weapons testing.<sup>28</sup> Truman's proposal was largely enacted as presented. Just four days after President Truman signed the trust agreement on July 18, 1947, the Atomic Energy Commission, which was responsible for executing all nuclear-related affairs, told Congress it had established the Enewetak Proving Grounds for the testing of weapons even more destructive than those already exploded at Bikini.<sup>29</sup>

"The people of Bikini have long seen the irony" in the conduct of the TTPI agreement that allowed "the bombing of their homeland and that forced them into starvation on Rongerik Atoll," Jack Niedenthal, an American living with Bikinians and manager of their trust fund, wrote in 2001.<sup>30</sup>

*The Times* news article on Truman's proposal also omitted discussion of obligations to the Pacific Islanders by the United States.<sup>31</sup> These obligations were spelled out in the middle of the text of Truman's proposal, which *The Times* published the same day. The U.S. obligations included measures "to protect the health of the inhabitants" and "to protect the inhabitants against the loss of their lands and resources," as well as more general duties to ensure political, economic and educational advancements.<sup>32</sup> *The Times* publication of the text of Truman's proposal was the only occasion over the next eight months in which readers were told of U.S. obligations in the TTPI; other articles in *The Times* and even some official U.S. statements that *The Times* did publish were silent on these duties.

Truman's proposal was controversial. It was so controversial, *The Times* suggested in an editorial on February 18, 1947, that the proposal could resemble "a disguised annexation which might expose the United States to the charge of 'imperialism.'" The editorial hinted the United States might be better off to soften its stance so as to "avert any appearance that the United States is 'annexing' a large part of the Pacific as an American lake."<sup>33</sup>

In the 30 news items published in *The Times* between November 7, 1946 and July 20, 1947, the following four themes are evident. These themes appeared in a variety of formats: 17 hard-news stories or analyses,<sup>34</sup> seven texts of official statements or proposals,<sup>35</sup> two photographs,<sup>36</sup> one map<sup>37</sup> and three editorials.<sup>38</sup>

The most conspicuous theme was the islanders' subordinate status under the new trusteeship. Language in official statements and reflected in *The Times* news items about the trusteeship arrangement often connoted a subordinate role for the peoples who were supposed to benefit from the trust. For example, one *Times* man defined trusteeships as "lands and peoples that did not yet have capacity to govern themselves." He elaborated: "'Colonies' used to be the word for it, but the League set up a system of mandates, and now the United Nations has improved upon the terminology at least to make it read 'trust territories.'"<sup>39</sup> In a similar theme, one *Times* lead paragraph quoted U.S. delegate to the U.N. General Assembly's Trusteeship Council, John Foster Dulles, as linking the U.N. trusteeship system to a "grant to dependent peoples of the right to eventual self-government or independence." In another case, *The Times* reported, U.S. delegate to the U.N., Warren Austin, made clear the United States thought that the economic and population conditions in the TTPI made independence unforeseeable.

An editorial in *The Times* also implied the subordinate status of the Pacific Islanders. *The Times* wrote that the United States under its proposal for its trusteeship in the Pacific "takes nothing belonging to any other nation and asks for no territory now capable of independence."<sup>40</sup>

A second conspicuous theme was that the trusteeship issue was divorced from the atomic test issue. None of the 30 *Times* news items reported that two U.S. nuclear weapons tests had already been conducted in the very same Pacific Islands that were to be included in

TTPI. This omission minimized public awareness and debate that could challenge U.S. decisions to conduct future tests. Of the 17 *Times* news stories or analyses studied, none mentioned the atomic testing or named Bikini Island. Neither did any of the four texts of U.S. statements. Thus, *Times* readers were deprived of essential information on a subject of public importance that would have permitted them readily to connect the framework of the trusteeship with the atomic test sites.

In the third theme, none of the 17 *Times* news articles or analyses noted that military installations and forces permitted in the TTPI were to be used for maintaining international peace and security. *Times* omission of this peace-and-security purpose that the U.S. military was supposed to be used for was coupled with another *Times* omission of what the islands were already being used for—nuclear experimental grounds. These twinned omissions in *Times* articles kept lay and elite readers in the dark about the extraordinary way in which U.S. military and atomic resources were being used in the Pacific, thus short-circuiting informed discussion and possible dissent. The gap in the power difference between the United States and the people entrusted to it then was unique. The United States, then the most powerful nation in the world, was the only atomic state and it was conducting atomic tests in an area that was being entrusted to it for international peace and security purposes.

Other duties and obligations of the U.S. government to the inhabitants of the TTPI were also ignored in all 17 *Times* news stories and analyses and three editorials. Especially notable is the double silence in *The Times* editorial on April 5, 1947, immediately after the Security Council appointed the United States to be the sole administrator of the TTPI. The editorial points out two U.S. responsibilities under the just-adopted trusteeship framework. “First and foremost,” the editorial stated, the United States should avoid converting what should serve as a defense of the United States and of peace into a challenge to other nations. The editorial discussed a defunct Navy plan to build fortifications on the islands but failed to mention U.S. atomic weapons tests, far more threatening to other nations and to peace, that had already been conducted at Bikini Atoll within the TTPI. The second U.S. responsibility listed by *The Times* was the “sacred trust” of U.S. authorities to prepare the TTPI

inhabitants for self-government.<sup>41</sup> But the editorial was silent on the more specific and immediate U.S. responsibilities set forth in Truman's original proposal and arising directly from atomic testing—to protect TTPI's natural resources and the inhabitants' health.

Thus, even after two historic nuclear tests at Bikini Atoll, *The Times* coverage echoed official U.S. statements, which also slighted U.S. trusteeship obligations. The U.S. obligations were mentioned only in passing in two of the four U.S. official statements. One such statement was Truman's official draft proposal for the TTPI in which these obligations had to be spelled out to meet the U.N. Charter requirements.<sup>42</sup> In the second official U.S. text, excerpts of a trusteeship statement made by U.S. representative Warren Austin related in the last of 16 paragraphs to the U.S. willingness to submit to international supervision the political, economic, social and educational development of the inhabitants.<sup>43</sup> Yet this statement ignored the more specific obligations to "protect the health of the inhabitants" and "to protect the inhabitants against the loss of their lands and resources." Few *Times* readers could have been informed about these obligations to which the United States had committed itself because the full text of the U.S. draft proposal containing them had been published months earlier on November 7, 1946, and no other references to the two specific provisions were later published in *The Times*.

In the last theme, the code words of "Japanese-mandated islands" were used in U.S. official statements and most of *The Times* news items to identify the islands comprising the proposed trusteeship. As discussed earlier, these were the islands Japan had taken over from Germany in 1914 and administered under the League of Nations sanction. But no context was given in *The Times* articles to connect this phrase to the sites of U.S. nuclear weapons testing. The shorthand phrase of "Japanese-mandated islands" thus served to obscure the fact that atomic tests had already been conducted on one of those mandated islands, Bikini Atoll.<sup>44</sup> Not only were the islands themselves obscurely described as "Japanese-mandated islands" but also reports of the amount of ocean area and the number of people and islands coming under U.S. administration shifted considerably. For example, articles about Truman's original proposal reported that the U.S. trusteeship would cover 1,045 square miles of

land serving as home to a population of 70,000. But three months later, when U.S. diplomats at the U.N. were encountering roadblocks to their proposal, both figures dropped, to 846 square miles of land and 48,000 native inhabitants.<sup>45</sup> In short, just how many islands and people were actually included in the formation of the TTPI was initially unclear to *Times* readers—and even to U.S. officials cited in news stories. Articles in *The Times* gave no indication that its reporters tried to reconcile the discrepancies in statistics published in its own pages so that readers could more clearly grasp meaningful facts about the people and islands of the TTPI.<sup>46</sup>

### Here's the Story But Hold the Bombs

Four years into the U.S. administration in the Pacific, *The Times* demonstrated initiative by dispatching reporter Lawrence K. Davies to Honolulu, where he gathered information for a three-part series on the TTPI. Prior to his visit, nine atomic weapons tests had been conducted at Bikini and Enewetak atolls, both lying within the TTPI. Those nine tests had unleashed a combined yield of 545 kilotons or the equivalent of 36 Hiroshima-size bombs, according to a 1994 U.S. document detailed in Appendix Table 1. Each of Davies' articles ran more than a full column. Yet the reporter ignored any mention of the islanders from Bikini or Enewetak who had been dispossessed so that their ancestral homelands could serve as A-bomb test sites. He also ignored the effects of those tests on the Bikini and Enewetak atolls.<sup>47</sup>

The series, in August 1952, described a great change taking place as the civilian administrators for TTPI settled into their headquarters in Honolulu and made strides in sparking what High Commissioner Elbert Thomas described as a primitive or "bailing wire economy." The tone of the articles from the Pacific carried forward that of articles written about discussions at the U. N., where the concept and definition of trusteeship implied a subordinate status for Pacific Islanders. *The Times* articles presupposed that the Islanders were in dire need of the economic change being implemented on their behalf, while ignoring the socioeconomic and health upheavals caused by the atomic testing.



## ***The Times* on the Compact of Free Association of 1986**

Under the U.N. Trusteeship, the U.S. government was to prepare the local populations for self-government. In 1986, President Ronald Reagan signed the Compact of Free Association after its ratification by the Marshall Islands and U.S. Congress. The Compact superseded, bilaterally, the U.S. administration of the Marshalls under the Trust Territory arrangement, which was continued at the United Nations until 1991. The Compact recognized the Republic of the Marshall Islands (RMI) as a sovereign, self-governing independent nation in terms of its internal management and international relations but with significant U.S. economic aid and services. It also reserved to the U.S. government sole military access to RMI's 700,000 square miles extending up toward Hawaii.<sup>48</sup>

The Bikini, Enewetak and Rongelap peoples, who had already filed multi-million-dollar class-action claims in federal courts for damages caused by the nuclear testing, objected to the Compact for one simple reason. The agreement closed off their right to sue and to appeal to the federal courts. Further, these peoples feared that U.S. responsibilities for the nuclear testing legacy would be abandoned. When islanders from the A-bomb atolls were outvoted by the Marshallese national government, the Compact was approved. The year after the Compact took effect, 14 suits seeking up to \$11 billion in health and property damages for nuclear testing at Enewetak and Bikini atolls were dismissed in a U.S. court. Despite giving regular coverage to the negotiations leading to the 1986 Compact, *The Times* gave scant coverage to these central issues.

### **News Zero on the Half Life of U.S. Funding**

And *The Times* devoted virtually no coverage—only 15 words in a 1,027-word story in 2001—to a new agreement called Compact II, which was negotiated between the U.S. and Marshallese governments when the 15-year provisions of the 1986 Compact expired in 2001. During the four years of protracted negotiations, protests by islanders,<sup>49</sup> Congressional hearings and then final approval in 2004, *The Times* kept its readers in the dark about the stingy treatment by

U.S. officials of the Marshallese, especially those most affected by the bitter legacy of U.S nuclear tests.

As finally agreed to, Compact II was silent on U.S. funding that has since become inadequate to cover spiraling nuclear-test-related health costs and property claims of those directly impacted by testing such as the fallout from the 1954 Bravo shot. U.S. negotiators also refused to discuss compensation for lesser nuclear-related claims and grievances of islanders from the four "atomic atolls" of Bikini, Enewetak, Rongelap and Utrik. Some of these protested peacefully in the capital city of Majuro at the opening of the Republic's Nitijela (legislature) in August 2003 and at the gates of the U.S. Embassy in September. They protested in part because Compact II had eliminated a generalized health-care program administered by the Department of Interior that had treated, in the 1990s, as many as 11,000 individuals from the four "atomic atolls," out of a total population of 54,000 Marshall Islanders.<sup>50</sup> This program was serving about 7,000 islanders when it closed its doors on December 31, 2003, leaving these unhappy residents with the unhappy prospect of access to a lesser quality of local health care.

Although more U.S. funds have been earmarked to improve local Marshallese health services under Compact II, much time will be needed before demand is met. In 1998, for example, a U.S. medical report found that the Marshall Islands had one of the highest densities of population in its two main urban centers, that malnutrition was a leading cause of death of children under five years of age, that cancer was one of the top causes of death overall, that radiation-induced thyroid abnormalities continued at a high rate and that U.S. documents declassified and released in 1994 "indicated a much higher level of contamination of the islands than was previously record." One of the country's two hospitals was in "serious disrepair," it noted, and the other, made of coated cardboard paneling, needed immediate replacement.<sup>51</sup>

*The Times* also left unreported testimony in several Congressional sessions in mid-2003 which revealed that U.S. funding to the Marshalls under Compact II would fall from \$35 million annually to \$24 million annually over the next 20 years. This severe funding cutback, coupled with the Marshalls' having one of the world's highest population growth rates,<sup>52</sup> would "result in falling per

capita grant assistance,” Susan B. Westin of the Congressional General Accounting Office told a House subcommittee on June 18, 2003. Over the next 20 years in the Marshalls, she estimated, per capita funding would decrease by more than half, dropping from about \$627 in 2004 to \$303 in 2023.<sup>53</sup>

## Deleting Damages from the News

The Compact contained one provision specifying that nuclear testing damages to persons or property discovered after 1986 could be covered in a new request to Congress with documentation that circumstances had changed. One significant change, as noted above, was the 1994 declassification and release of U.S. documents showing more radioactivity and other contamination than the Reagan Administration had disclosed when Marshallese agreed to the 1986 Compact. Invoking this “Changed Circumstances” provision,<sup>54</sup> the RMI government, in September 2000, petitioned Congress for more funds and services to meet unforeseen health needs and property damage claims resulting from the nuclear weapons tests. On November 14, 2001, the Petition was resubmitted to a new Congress and transmitted to President Bush. Congress, as of early 2004, has yet to take action. And *The Times* has yet to cover it as a story.<sup>55</sup>

# *Building a Superpower by Standing on the Shoulders of Native Peoples*

“There are only 90,000 people out there. Who gives a damn?”—Henry Kissinger

The end of World War II and the return of peace ushered in for Bikini, Enewetak and Johnston Atolls 16 years of unparalleled degradation and invisible menace. U.S. nuclear weapons tests intermittently turned these atolls into infernos that were vital for catapulting the United States into superpower status but left a bitter legacy for the people and their environment. Ten months after the atomic bombing of Hiroshima and Nagasaki ended World War II, the Pacific atolls became what historian Stewart Firth described as a “nuclear playground.” More explicitly, the day after the first Bikini Atoll test in July 1946, *Times* columnist Anne O’Hare McCormick observed: “The use of animals as the living material of the experiment is a grisly reminder that they were just a substitute for men and that human beings are as helpless as mice before the Frankenstein they [men] have let loose.” In addition, she noted, the peacetime atomic tests serve “as a warning that war has found a way to end mankind before mankind has found a way to end war.”<sup>1</sup>

The Pacific Islanders were on the frontline of what soon became a silent, invisible worldwide phenomenon unknown to most of the world and unreported in *The Times*. By 1950, radioactivity produced by atmospheric tests in the Pacific atolls took just a week to waft 4,000 miles away to San Francisco.<sup>2</sup> By 1957, multi-megaton hydrogen bomb explosions were found to be skyrocketing radioactive dust more than ten miles into the stratosphere, where it was stored while fractions of it dribbled to earth for the next seven years; lesser explosions spewed radioactive particles into the lower troposphere, where they circumnavigated the globe in four to seven weeks while being wafted along by easterly winds.<sup>3</sup> By 1962, each person

on earth had unknowingly become touched by radioactive particles arising from nuclear weapons detonations.<sup>4</sup> As award-winning journalist Eileen Welsome noted in 1999:

The radioactive debris found its way into starfish, shellfish, and seaweed. It covered alfalfa fields in upstate New York, wheat fields in North Dakota, corn in Iowa. It seeped into the bodies of honeybees and birds, human fetuses and growing children. The atom had split the world into "preatomic" and "postatomic" species.<sup>5</sup>

Yet, *Times* articles on the U.S. Pacific tests omitted information on the 500,000-year radioactive longevity and documented deadliness of plutonium, a vital ingredient of each Pacific nuclear weapon, as detailed in Chapter 7.

The framing of the first news about atomic weapon detonations not locked in secrecy emanated from correspondents covering the U.S. Pacific atomic weapon tests at Bikini Atoll because, as detailed in Chapter 3, information about the effects of radiation on Japanese survivors of two atomic bombings was carefully controlled by U.S. occupation forces.<sup>6</sup>

U.S. Pacific nuclear weapons experiments began at Bikini Atoll on July 1, 1946 and continued for 16 years, ending at Johnston Island on November 4, 1962. Nine months after the last U.S. test in the Pacific, the United States and the Soviet Union, on August 5, 1963, signed the Limited Test Ban Treaty, which outlawed the testing of nuclear weapons in the atmosphere, the oceans, and space. Atmospheric testing by the U.S. government alone, mostly conducted in the Pacific through 1962, accounted for 41 percent of the number of atmospheric tests of all nations through 1980, when the People's Republic of China conducted its last such experiment. And as a better measure of deadly materials that were dispersed, U.S. atmospheric testing accounted for 33 percent of the total megatonnage expended in the atmospheric tests of all nations.<sup>7</sup> After the 1963 bilateral agreement with the Soviets, the U.S. nuclear tests shifted elsewhere from the Pacific to underground shots.

## Vital Role of Pacific Contributions

During the 16-year period, the United States conducted 86 tests on, near or above the three atolls it administered and in Pacific waters. A 1994 document released by the U.S. Department of Energy, the latest, relevant official and most comprehensive listing of all U.S. nuclear detonations [hereafter referred to as “the 1994 DOE list”] lists 82. This writer added four experiments in 1962 that failed at Johnston Island and that are excluded from the 1994 DOE list.<sup>8</sup> These four failed tests were announced by the government in Washington in 1962 and were given front-page play in *The Times*.

The unprecedented magnitude of the U.S. Pacific nuclear weapons experiments is documented by the U.S. government’s statistics from the 1994 DOE list, which are shown in Appendix Table 1. Sixty-six of the 86 detonations were conducted on or near the neighboring Bikini and Enewetak atolls in the Marshall Islands, some 2,000 miles west-southwest of Hawaii. Total yield of the U.S. atmospheric tests conducted in the Bikini-Enewetak area was about 100 times greater than the total yield of the 87 atmospheric tests conducted during the same period in Nevada, about 108.5 megatons compared to 1.1 megaton.<sup>9</sup> Although yields of U.S. tests were not disclosed at the time, the yield of what *The Times* described as the mightiest nuclear explosion within the continental United States, which was the first explosion of a hydrogen device in Nevada in 1962, was but .0069 of the magnitude of the most powerful Pacific test, later disclosed as the 15-megaton Bravo shot of March 1, 1954.

A dozen upper-atmosphere detonations were completed at Johnston Island,<sup>10</sup> an atoll unpopulated by indigenous inhabitants 800 miles southwest of Honolulu. The bursts in the darkened sky at first frightened and then fascinated Hawaii’s residents and tourists in Waikiki. In one failed test at Johnston Island, a Thor missile exploded on the launch pad, spewing plutonium into the environment.<sup>11</sup> As one medical doctor explained, “Plutonium lives for 500,000 years and is so toxic that one-millionth of a gram is carcinogenic.”<sup>12</sup>

The 86 Pacific nuclear weapon tests were vital in two ways to the nation’s military supremacy at the time they were conducted and to U.S. superpower status today:

- they made possible the escalation from atomic bombs releas-

ing 15 kilotons of energy to hydrogen bombs a thousand times more powerful.

- they facilitated the transition from conventional bombers to intercontinental missiles.

How indispensable these Pacific atolls were for the United States is clear when their locations are compared with the geography of weapons test sites of subsequent nuclear states. The Soviet Union and China controlled such large land masses that these nations could conduct their tests on the outer periphery of their home territories. The land masses of Great Britain and France were situated in areas too small amidst dense populations to explode nuclear weapons at home. But these nations held colonies. Australia and Christmas Island served as test sites for Great Britain, and Algeria followed by French Polynesia served French testing programs.<sup>13</sup> In short, nuclear and missile experiments far too dangerous to conduct in the 48 U.S. contiguous states were held in or on the U.S.-controlled Pacific atolls and above or under the Pacific Ocean.

The vital importance of using the Pacific region for its most dangerous and unpredictable nuclear tests was acknowledged officially in 1951 by the Atomic Energy Commission (AEC). In explaining why the Pacific Proving Ground had been established in 1947 at Eniwetok, where the first U.S. pre-thermonuclear device was tested the following year, the AEC, in its thirteenth annual report to Congress, stated:

The Commission felt that tests should be held overseas until it could be established more definitely that continental detonations would not endanger the public health and safety [of the U.S.A.]. The 1948 test series, the first since the creation of the Atomic Energy Commission, was held at Eniwetok Atoll in the Pacific. Since the larger test detonations could not be held within the United States with the requisite degree of safety, construction of firing areas and supporting facilities at the Pacific Proving Ground at Eniwetok proceeded, and tests were held there in the spring of 1951 and the fall of 1952.<sup>14</sup>

Yet the vital strategic role played by the Marshallese and their homelands in fostering U.S. nuclear superiority was rarely mentioned in *The Times* except at the end of these 16 years of Pacific testing in 1962. Then, threaded through several *Times* articles about the 1962 tests were comments made in passing that the Kennedy

Administration had approved the Pacific region for atmospheric nuclear tests, with their attendant fallout, because such experiments were considered too dangerous for the continental United States. *The Times* reported, in June 1962, that the Kennedy Administration had specifically rejected “proposals that the first atmospheric tests be conducted in Nevada to demonstrate to the world that the United States was not concerned about the consequent fall-out on its own territory.”<sup>15</sup> That year the political liability of high-altitude nuclear blasts at the Nevada site was so severe that Kennedy refused to permit them, saying that the “political cost of another mushroom cloud visible in the United States” would be too high.<sup>16</sup>

U.S. nuclear testing conducted in the Pacific established U.S. superiority over the Soviets both in destructive weaponry and in missile delivery systems. As serious negotiations with the Soviets began, Kennedy’s key advisers were citing impressive statistics in secret briefings in Washington to document U.S. superiority over the Soviets.<sup>17</sup> This formidable combination of destructive bombs that could be delivered to obliterate Soviet territory gave the Kennedy Administration the position of strength it needed to sign the 1963 Limited Nuclear Test Ban Treaty with the Soviet Union.

Yet U.S. officials and the public over the years have rarely been reminded of the vital role played by Pacific Islanders and their homelands. One exception was the statement made in 1994 to the House Subcommittee on Oversight and Investigations by David Weiman, a former attorney representing the local government of Rongelap Atoll. He asked the Congressional members what the Marshall Islanders should mean to the people of the United States and the world. Then, answering that question, he explained:

When the Berlin “Wall” came down, when the USSR began to crumble, when global communism collapsed, the world neglected to thank the Marshallese. The Marshallese people were, and in so many ways still are, the front-line cold-war warriors. For the cause of world freedom, Marshallese health was damaged, its culture was compromised, its food supply poisoned and its land was contaminated.<sup>18</sup>

## **The Largely Untold Story of Islanders’ Sacrifices**

The sacrifices of the Pacific Islanders in service of U.S. military



supremacy while the U.S. nuclear weapons tests were being conducted were largely untold in *The Times*.

Marshall Islanders have suffered numerous types of health problems that were initially ignored or minimized by U.S. officials and *The Times*. Only after ending its Pacific testing and reaching a bilateral agreement with the Soviets in 1963 did the U.S. government and *The Times* begin telling of the leukemia and other cancers, of the growths of thyroid nodules that had to be removed to prevent the occurrence of cancer and of the mental and physical retardation of children, which were conditions beginning to appear before then. Immediate effects of the fallout on the Rongelapese, in 1954, included severe radiation sickness, nausea, radiation burns and hair loss, as detailed in Chapter 9. But these afflictions were denied at the time by U.S. officials and unreported in *The Times*. In 1957, a *Times* article reporting that the fall-out victims were in sound health was based on an article in the authoritative *Journal of the American Medical Association*, which contained four graphic photos showing the radiation burns and hair loss suffered by Rongelap children from the 1954 Bravo shot. *The Times* ignored these photos. It also omitted data about the stunted growth of two young boys subjected to Bravo's fallout and the similarity of this finding with information from Japanese boys who had survived the A-bombings of Hiroshima and Nagasaki.<sup>19</sup> Within four years after the 1954 Bravo shot that had dusted them with radioactive fallout, Rongelapese women suffered increasing numbers of stillbirths and miscarriages, but these conditions were undisclosed by U.S. officials before 1963. Today, as detailed in Chapter 10, 35 types of cancers and tumors, as well as mental and other retardation, are eligible for U.S.-funded compensation because they are presumed to result from the U.S. nuclear testing program in the Marshall Islands; this human face of the U.S. nuclear legacy in the Pacific has been unreported in *The Times*. And remedies for a broader array of nuclear-related illnesses and the aftereffects of human radiation experiments on Marshallese, which are documented in U.S. records, need to be funded, Marshallese officials said in a 1996 Congressional session left unreported in *The Times*.

The persistence of radioactivity, so rarely mentioned in *Times* articles about the Pacific tests, has meant that Bikini Atoll is still

uninhabitable more than half a century after its 170 residents were exiled so their homelands could be transformed into a nuclear proving ground. When the U.S. nuclear testing ended in 1962, the Bikinians did return home for several periods only to intake such dangerous levels of radiation that they had to be evacuated again. Today, they are still exiled, most living in austere huts on desolate Kili Island. More cleanup is needed on Bikini Atoll, which is still dotted with gigantic radioactive bunkers.<sup>20</sup>

The 142 inhabitants removed from Enewetak in 1947 were promised by U.S. officials that they would be taken care of, that they would be accorded the same constitutional rights as U.S. citizens and that they could return home within three to five years. Instead, for the next 33 years they languished on desolate, unproductive Ujelang Atoll with scant attention from U.S. officials and none from *The Times*. During their 33 years of exile, they longed for their homeland. More strongly than in the West, Marshall Islanders hold a particularly strong attachment to their land. As anthropology professor Laurence Carucci explained, "Not only is land hyper-valued because it is scarce, the land is extremely valued because it represents the collective labour of generations of people who have worked the land, transforming it from bush to habitable space." Carucci and U.S. officials have acknowledged that during their 33 years on Ujelang the Enewetak people suffered grave deprivations, including periods of near-starvation.

Between 1977 and 1980, U.S. officials launched a \$100 million clean-up and reconstruction project and then the Enewetak people were allowed to return home. But once home, they could hardly believe their eyes. Their once-lush atoll had been transformed into expanses of concrete and asphalt needed to support the activities for launching 43 nuclear weapons tests there. In other words, Carucci, who had lived among the Enewetakese, explained their mother place had become desiccated and unrecognizable. "As people struggled to fulfill their desires of reunification with their primordial place," Carucci explained, "the more they recognized the foreignness of their home. It is this contradiction of the grandest scale that has become the source of incredible frustration for Enewetak people."

Behind these visible damages lay two invisible factors. One was

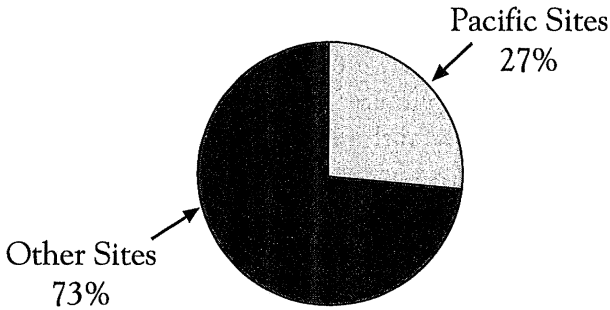
that up to eight percent of their 1,919-acre home atoll had been completely vaporized during the nuclear tests. Second was the lingering dangers of plutonium and other radioactive elements. The 142 Enewetakese exiled in 1947 have now grown to number 900, who live on the 42 percent of their atoll in the south that is inhabitable. It is still so contaminated by residual radiation contamination that they are unable to produce edible products and must rely on imported foods. Completely uninhabitable is 49.4 percent of the atoll, including parts that are still so laced with plutonium that inhabitants who once lived there are unable to return to their ancestral places. They are unlikely to be able to do so for decades, if not centuries.<sup>21</sup>

During the 1946-62 testing period, mischaracterizing the Pacific Islanders and their region often resulted from seven key news practices of *The Times*. Ironically, these deficiencies undercut principles that *The Times* had initiated in 1896 and claimed it adhered to ever since—providing all the news and providing it impartially, especially on matters of public importance.

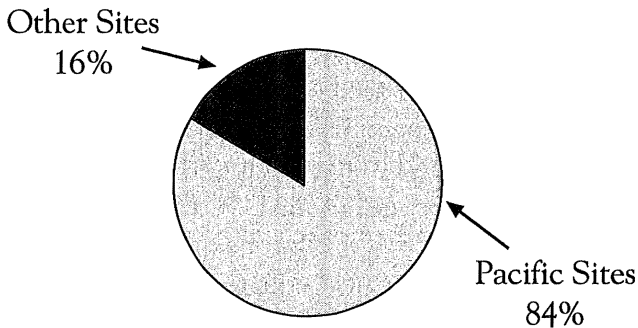
First, the yields of tests were not disclosed by the U.S. government at the time of the tests and *The Times* articles provide no indication its reporters questioned or even explained why such information was kept secret, even after a senior U.S. official in 1951 said publicly it should be disclosed to help U.S. civil defense efforts. Figures 2 and 3 that follow, based on the 1994 DOE list, show, however, that while only 27.2 percent of the 302 U.S. nuclear tests during 1946-62 were conducted in the Pacific, these tests accounted for up to 83.8 percent of the yield of all U.S. nuclear tests during this 16-year period—at least 128,704 kilotons or the equivalent of 8,580 Hiroshima-sized bombs. This yield equates over the course of the 16 years to 536 Hiroshima-size bombings a year—or more than ten a week.<sup>22</sup> Yet the cumulative effect of such destructiveness was hidden from the world because of the uneven and vague way that information was released by the U.S. government and not questioned, challenged or explained by *The Times*.

**FIGURE 2**

DISTRIBUTION OF SITES, 1945-62  
(302 U.S. Nuclear Tests)

**FIGURE 3**

DISTRIBUTION OF MINIMUM YIELD, 1945-62  
(Estimated 153,647 Kilotons)



Second, *The Times* failed to question the U.S. government on the number of tests being conducted in the Pacific. It could be argued that these numbers should not have been revealed for the sake of national security, and that if the government didn't release the figures, it wasn't the fault of *The Times* for not reporting them. But the argument is a weak one. The figures were available from the very enemies Washington might have wanted to keep in the dark.

As detailed below, readers of *The Times* could have learned what the number of tests were—from the Japanese scientists and Soviet officials who were keeping a close count and often voluntarily announcing their results publicly.

Third, *The Times* failed to use its editorial might to call for more press access to the Pacific testing grounds, even though that newspaper had vigorously and successfully done so on behalf of foreign journalists for the first test at Bikini Atoll in 1946.

Fourth, *Times* descriptions of the Pacific tests emphasized U.S. technological prowess but minimized dissent from those directly affected by the tests, as is documented later in this chapter.

Fifth, *The Times* failed to question the well-being of the 170 Bikinians and 142 Enewetakese exiled so that their homelands could be transformed into proving grounds for the most destructive tests in the U.S. history, even though care of these islanders had been entrusted to the U.S. government by the U.N. beginning in mid-1947 and ending in 1991. Hence, as is documented in Chapter 8, readers were uninformed of the decades of sickness and hardship, even near-starvation, that these islanders endured on atolls more remote and less productive than their homelands.

Sixth, as documented in Chapter 9, *The Times* lacked journalistic enterprise in tracking news about the effects of radioactive fallout on some of its prime victims on Rongelap and Utrik atolls in 1954, even though these islanders were given annual medical tests by specialists, who could have been interviewed at the Brookhaven National Laboratory, less than 100 miles from the newspaper office.

Seventh, as documented in Chapter 7, *The Times* neglected to include material facts about the millennia-long radioactivity and the carcinogenicity of the key ingredient of plutonium used in each nuclear bomb it described as being detonated in the Pacific; these facts were not subject to scientific dispute or national-security classification during this period. Thus, *Times* readers were left uninformed about the deadly nature of plutonium, one of the deadliest ingredients known to man, that was being spewed forth from each U.S. Pacific nuclear weapons explosion.

Now, 42 years after the last U.S. Pacific nuclear test in 1962, *The Times* has still left unreported the vital role that the Marshall Islands and its people have played across the entire 46-year span of

U.S. nuclear weapons history. The 86 Pacific tests accounted for up to 73 percent of the yield of all 1,054 nuclear tests conducted by the United States worldwide through 1992, when it ceased all such experiments. But largely unreported in *The Times* is the legacy of these tests—the growing evidence of the latent diseases and other hardships suffered from these tests by Marshall Islanders in terms of adverse health, environmental and socioeconomic impacts on them.

Through the decades, *The Times* has adhered to its newspaper-of-record function by publishing brief articles on the inside pages about U.S. compensation to the Marshallese. Publication of these articles indicated U.S. attentiveness to addressing Marshallese needs but the near-invisibility of these stories in placement and size suggested the subordinate status of the islanders and their homelands that were entrusted to the U.S. government. The islanders' inferior status was noted in 1974 by one expert in the region, anthropology professor Robert C. Kiste, "In the Pacific as well as North America, [white] Americans have assumed a cultural and racial superiority which they believe justifies their disruption of lives of dark-skinned peoples and the seizure of the latter's real estate for American ends."<sup>23</sup> The subordinate and inconsequential status of these Pacific Islanders was also reflected in the 1969 statement of then-presidential adviser Henry Kissinger: "There are only 90,000 people out there. Who gives a damn?"<sup>24</sup>

## Hiding 8,580 Hiroshima-size Bombings

Throughout the 1946-62 period of U.S. Pacific testing, the minimal yield—or explosive force—of each experiment was announced officially in only the vaguest of terms. As noted earlier, the yield of all the Pacific tests was not made public until 1994. When disclosed, the figures showed that the yield of 86 tests studied here amounted, over the 16 year period, to 8,580 Hiroshima-size bombs—or ten per week or 1.4 explosions per day.

The most significant bomb described publicly in rather precise statistics, was the Hiroshima weapon that President Truman told the world consisted of more than 20,000 tons of TNT—and *The Times* used that number in its three-line banner headline of August 7, 1945.<sup>25</sup> After that, journalists were often told to use the Hiroshima

bomb as the benchmark against which to compare subsequent explosions. (Whether he knew it or not, Truman had exaggerated that tonnage by 33 percent. The 1994 DOE list assigns 15 kiloton—15,000 tons—to the atomic bomb dropped on Hiroshima. Truman's exaggeration underscores the unreliably fuzzy descriptions given by officials and perpetuated by *The Times* of the most powerful U.S. atomic explosions.)

Even though the first test at Bikini Atoll was witnessed by some 168 U.S. and foreign news media, no official description of yield was given. *Times* articles about that test gave no indication that reporters asked for official information or even asked why the yield was nondisclosable.

On April 2, 1952, AEC Chairman Gordon Dean was quoted in an Associated Press article published in *The Times* as saying that he wanted to provide the public more information about the first successful test at Enewetak Atoll that contributed to development of a hydrogen device so as to facilitate planning intelligently for civil defense. But he was held back from doing so by military officers.<sup>26</sup> Dean was responding to the four-fold increase in test yields that shows up in Operation Greenhouse of 1951 over the previous operation (See Appendix Table 1, Pac. Nos. 6 through 9).<sup>27</sup> Even after Dean had made this statement there is no evidence that *The Times* asked for more nuclear-related government information or for reasons why the information could not be provided to promote civil defense and to protect the public.

Seven months later, on October 31, 1952, the 10,400-kiloton Mike shot of Operation Ivy was detonated with a yield double that of all nine previous U.S. Pacific shots (Pac. No. 10 in Appendix Table 1). Its yield equated to nearly 700 Hiroshima-size bombs. Yet that 1952 shot was not announced officially at the time; on November 16, U.S. officials announced only the end of the series, as was then their common practice. Often, as was the case in Operation Ivy, the number of individual tests within a series was also kept secret without explanation.

Officials did announce without elaboration that the Mike shot had contributed to developing a hydrogen bomb, a feat that *The Times* announced in a story and a three-line banner across the top of Page 1.<sup>28</sup> Not until February 18, 1954, however, some 15 months

after its detonation, was the public told that the Mike shot had vaporized the entire island of Elugelab in Enewetak Atoll, leaving in its place a crater broad enough to accommodate 14 Pentagons.<sup>29</sup> When this announcement was finally made with much fanfare, the Eisenhower Administration also released a 27-minute film on Operation Ivy in which the destruction of Elugelab by the Mike shot was barely visible because of poor photography.<sup>30</sup>

Interestingly, in a four-paragraph article buried on Page 86, *The Times* reported that top U.S. policymakers had banned overseas distribution of this color film on Operation Ivy, fearing that it would cause too great an emotional impact in a nation that had already been subjected to nuclear bombs.<sup>31</sup> In an even less conspicuous one-paragraph article, *The Times* reported that Japanese patrons were flocking to theaters to see the black-and-white prints of Operation Ivy, which had been distributed overseas and in Canada instead of the color version.<sup>32</sup> Significantly, the film had been released just a month after the Japanese had learned of the *Lucky Dragon's* 23-man fishing crew, who had been powdered by radioactive fallout from the Bravo shot on March 1, 1954, as is detailed in Chapter 9. Thus, the Mike shot epitomizes the scattershot and selective method and expanded mediums in which U.S. officials released information.

The secrecy surrounding the dramatic escalation of the yield of the Mike shot to the equivalency of 700 Hiroshima-size bombs kept more than just the lay public in the dark. Also uninformed were U.S. civil defense officials, who, *The Times* reported in April 1954, were clinging to their assessments that no new plans were needed for the evacuation of New York City.<sup>33</sup> By late 1954, however, the Association of State Health officials voted to ask the federal government to give health officials with security clearances access to classified atomic energy information to prevent health hazards.<sup>34</sup>

By 1956, the U.S. government began to give out more specific descriptions of the yield of the tests. It devised code words to standardize a range of statistics being used to designate each test. For example, "a couple of megatons" was used to describe, in 1962, the spectacular Starfish Prime test that released a flash of energy so powerful it lighted up the night sky from Hawaii to New Zealand.<sup>35</sup> That shot is designated at 1.4-million tons, or 1,400 kilotons, which equates to 93 Hiroshima-size bombs (see Pac. No. 78 in Appendix



Table 1). Another code word used during 1962 was “low yield” to describe an explosive force of less than 20,000 tons of TNT—which is more than the Hiroshima bomb.<sup>36</sup>

The government justified use of these code words by saying that precise figures would be handing valuable secrets to a potential enemy. Whether this secrecy was justified at the time is beyond the scope of this book other than to note that there is a significant question as to whether this was an issue that should have been the subject of a public forum and persistent questioning by *The Times*, especially in the light of the civil defense problems voiced by AEC Chairman Dean. Moreover, the Soviets and Japanese might have been reliable and forthcoming sources of information because officials in those countries often announced tests that were undisclosed by the U.S. government.

By 1958, U.S. officials began to release more specific data on the explosions of 1954 and 1956, acknowledging that at least seven Pacific tests had been conducted that had not been previously announced. But this policy change was said officially to have been made at the urging of seismologists, rather than of journalists.<sup>37</sup>

By 1962, *The Times* published a six-paragraph article about the change instituted by the Kennedy Administration to begin announcing each U.S. Pacific nuclear weapons test individually when it was held. The article acknowledged that some Pacific and Nevada nuclear tests were not announced at the time they were held. The article said no official explanation was given for the policy change.<sup>38</sup> The policy shift was actually less substantial than *The Times* article suggested because the U.S. tests that were soon to begin were to be held in Pacific waters or at Johnston Island, where federal officials had already promised advance test notification to Hawaii officials.

Without persistent questioning by journalists about why some information was being kept secret, the world was given an imprecise sense of the scale of each Pacific nuclear test, if it was informed at all. In effect, this imprecision led to obscuring the immensity of the yield of U.S. Pacific nuclear weapons tests and the significance of the Pacific in U.S. nuclear history.

## Hiding 44 Percent of the 86 Pacific Tests

*The Times* presumably published information about all tests officially announced by the U.S. government, a routine expectation in light of its longstanding newspaper-of-record principle. *The Times* also published some articles on U.S. nuclear tests that were not announced by the Eisenhower Administration in 1956 but that were based on reliable Japanese sources. Table 1, shown below, indicates that 44 percent of the 86 Pacific nuclear tests were not published during this period in *The Times*.

Operation	Yield In KT		No. of Test Con- ducted	No. of Tests in NYT	Percent of Tests in NYT	Pg 1
	Min.	Max.				
Crossroads (1946)	42	42	2	2	100%	2
Sandstone (1948)	104	104	3	2	67%	2
Greenhouse (1951)	399	399	4	2	50%	1
Ivy (1952)	10,900	10,900	2	1	50%	1
Castle (1954)	48,200	48,200	6	4	67%	3
Wigwam (1955)	30	30	1	1	100%	0
Redwing (1956)	20,820	20,820	17	10	59%	3
Newsreel (1958)	7,602	7,602	3	3	100%	2
Hardtack I (1958)	28,026	28,026	32	9	28%	0
Dominic (1962)	10,777	10,795	7	5	71%	2
Fishbowl (1962)	1,804	3,436	5	5	100%	4
Failed Tests (1962)	0	0	4	4	100%	4
<b>Total</b>	<b>128,704</b>	<b>130,354</b>	<b>86</b>	<b>48</b>	<b>56%</b>	<b>24</b>

The data in the first four columns of Table 1 are based on the 1994 DOE list recording, respectively, each operation name and year, the minimum and maximum yield in kilotons of the tests in each operation and the number of tests in that operation. The data in the last three columns record the number and percentage of the operation's tests reported in *The Times*, and the number of tests in each operation that was published on Page 1.

Table 1 reveals:

- *The Times* did not publish articles on 38 of the 86 Pacific tests (44 percent). This void left the world in the dark about the true rate and scale of the escalating destructiveness of these tests—and the effects of these tests on humans and the environment.
- *The Times* did publish articles on 48 of the 86 tests (56 percent).
- 24 of the 48 articles (50 percent) were published on Page 1. Some of these were given banner headlines—usually those marking a significant escalation in the development of nuclear weaponry or of the means of delivering warheads; all of the 48 articles published on Page 1 were continued on inside pages.
- 24 of the 48 articles (50 percent) did not rate Page 1 treatment. These articles were so short or inconspicuously placed in the back pages of *The Times* that readers would have had difficulty in detecting and digesting them.

In summary, 44 percent of the 86 tests were not published in *The Times*, 28 percent were inconspicuously published and 28 percent were Page 1 articles, with continuations inside that paper. The conspicuous placement of 28 percent of the tests in the eye-catching position of Page 1 created the false impression that those represented most or all of the tests, when in fact most of the tests—or 72 percent—were unreported or barely reported.

## “Humanized” H-Bombs and Japanese Test Count in 1956

Only 10 of the 17 tests in Operation Redwing in 1956 were covered by articles in *The Times*, as shown in Table 1.

Redwing was the first operation since Crossroads in 1946 to which journalists were invited. Laurence joined 13 other journalists to report on the shots that the U.S. officials wanted well covered to verify claims that they had beaten the Soviets in developing a deliverable hydrogen bomb and were expanding their nuclear arsenal to include a tactical nuclear weapon—or what Laurence described as “pocket-size.” Operation Redwing consisted of 17 tests, totaling a

yield of 20,820 kilotons over 77 days. This yield was the equivalent of 1,388 Hiroshima-size bombs—or 18 such explosions per day.

Laurence wrote three articles about Operation Redwing, all receiving front-page play.<sup>39</sup> In covering the first airdropping of an H-bomb, Laurence again used his experience in witnessing earlier atomic bomb detonations to assess the airdropped Redwing weapon as being “by far the most stupendous release of explosive energy on earth so far.”<sup>40</sup> That shot, codenamed Cherokee (Pac. No. 20 in Appendix Table 1), produced a yield of 3,800 kilotons, compared to 15,000 kilotons for Bravo. The next day, *The Times* published an Associated Press dispatch citing a military communiqué from the scene that indicated there was no increase in radiation in the Marshall Islands generally and the fallout on Bikini Atoll “was relatively light.” Curiously, and without explanation, the article devoted five paragraphs to describing the effect of airdropping a Cherokee-sized bomb on a city. Every building for more than two miles from the explosion would be crushed and even those with steel frames up to nine miles away would be seriously damaged, the article detailed. Suburban homes 12 miles away would be destroyed. Aside from these effects from the bomb’s blast, the heat from the explosion would generate a firestorm. Any person close to Ground Zero would be “radiated to the point of early death or long lingering illness.”<sup>41</sup> How all of this devastation would result when supposedly light radiation fell over the Marshall Islands is unexplained. *The Times* later reported on Page 1 that the first U.S. hydrogen bomb dropped from an airplane had missed its target by about four miles because of human error.<sup>42</sup>

Back on the East Coast, in another article, Laurence translated the technical jargon used by AEC Chairman Lewis Strauss to explain and echo that the Redwing shots were “humanized” H-bombs because of the changing of the fusion-fission materials and reactions. The significance, he concluded, was that such a bomb, by reducing the fallout it produces, becomes “a greater deterrent against aggression than ever before, since it removes the strongest objection against its possible use as a defense against an aggressor.”<sup>43</sup> The Redwing tests led to weapon developments that permitted the Eisenhower Administration to talk of the possibility of producing a “clean” nuclear bomb and *The Times* in news columns, headlines and editorials repeated that label.

But just how that “clean” bomb was to be accomplished could not be divulged, *The Times* reported, because that knowledge was classified.<sup>44</sup> Whether any H-bomb could be considered “clean” or “humanized” was left unasked and unaddressed at *The Times*—but not elsewhere. Physicist Ralph Lapp criticized AEC Chairman Strauss for inventing the contradictory term of “humanitarian H-bombs.” Lapp added, “Part of the madness of our time is that adult men can use a word like humanitarian to describe an H-bomb.”<sup>45</sup>

After press access to these two shots, Washington officials turned silent about the number of tests. Secrecy in Washington in 1956 may have been prompted by the early phase of the Presidential election in which banning H-bomb tests was becoming a campaign issue. In addition, as *The Times* reported, the Eisenhower Administration was then being forced to defend itself in the U.N. against charges that its Pacific nuclear weapons tests constituted “moral abuse” of its responsibilities in the Trust Territory of the Pacific Islands that it administered and to the people entrusted to it.<sup>46</sup>

The remaining eight *Times* articles on Operation Redwing tests originated from Tokyo.<sup>47</sup> Japanese scientists served as sources. Four of the tests were disclosed in one four-paragraph article on an inside page<sup>48</sup> (Kickapoo, Pac. No. 27; Dakota, Pac. No. 30; Navajo, Pac. No. 33; and Tewa, Pac. No. 34 in Appendix Table 1). The yield of these four tests constituted more than half the yield of the entire operation, as shown in Appendix Table 1. These four tests accounted for a combined yield of 10,601 kilotons or the equivalent of 706 Hiroshima-size bombs—but were described in *The Times* in a mere four paragraphs.

Operation Redwing in 1956 accounted for 20,820 kilotons of explosive force—or the equivalent of 1,386 Hiroshima-size bombs, as shown in Table 1. This total yield was the equivalent of that resulting from nearly four Hiroshima-size bomb explosions each day throughout 1956. Readers were thus provided the scantiest of information and the skimpiest of context about tests comprising the third most destructive of the 12 U.S. Pacific testing operations—a fact unknown at the time due to the echoing-the-government approach to covering the nuclear tests adopted by *The Times* and the Eisenhower Administration’s blackout of the accurate numbers of tests being conducted. Moreover, readers were denied this meaning-

ful data when it would have informed them during an election year about the destructive testing being conducted by the administration of President Eisenhower, whom *The Times* twice supported in its editorial columns for the White House. In the 1956 election, Eisenhower's Democratic opponent, Adlai Stevenson, advocated a ban on U.S. hydrogen-bomb testing.

During Operation Redwing, Japanese scientists provided the fastest, most accurate information on U.S. nuclear tests in the Pacific—a profound irony given that only a decade earlier U.S. atomic bombs had forced Japan to surrender by destroying two of her cities.

## **Hiding Five Hiroshima Bombs A Day —Except From the Soviets**

Even more ironic than Japanese scientists announcing U.S. Pacific nuclear weapon tests in 1956 were the Soviet disclosures about the 1958 U.S. Operation Hardtack I tests. Table 1 shows that *The Times* published articles about nine of the 32 shots in this operation—a reporting rate of only 28 percent, by far the lowest throughout the period of Pacific tests.

These nine articles were all inconspicuously placed on the inside pages. All were brief, with four of the nine articles being only one paragraph long and the longest being seven paragraphs. All were set in one-column width and carried one-column headlines. Thus, this de-emphasis by *The Times* gave readers little sense of the impact, scale or context to grasp the significance of Operation Hardtack's developments in 1958 in the Pacific or even worldwide.

The explosive force of the 32 tests in Operation Hardtack I was the second greatest of all 12 U.S. Pacific operations, as is shown in Table 1. This operation's combined yield of 28,026 kilotons for the 32 tests was the equivalent of 1,868 Hiroshima-size bombs, or an average of 35 such detonations per week in 1958, or five per day.

It is hard to imagine the impact if *The Times*, in 1958, had been able to tell the world of those five-in-a-day Hiroshima-size explosions in the banner headlines it used to announce the original A-bombing of the Japanese city. Instead, set in one-column width, the nine articles altogether account for a total of only 36 inches of

type—or one inch of type to cover 51 Hiroshima-size bombs.

The policy of secrecy in Washington, in 1958, led to the release by the Soviets that August of their count of the 1958 U.S. tests—and their making huge propaganda gains in doing so. The Soviets accused the U.S. of concealing information on 18 of 32 nuclear tests in the first eight months of 1958—at a time when the U.S. government had released information on only 14 and thus were concealing 18 as the Soviets charged.<sup>49</sup> The 1994 DOE list and earlier authoritative data now available show the Soviet count was close to being accurate.<sup>50</sup> Later, AEC Chairman John McCone conceded that the Soviets had been reasonably precise. The Soviet disclosures prompted the United States to confirm the overall number of Pacific tests, *The Times* reported, but Washington provided no details about the dates, sites or yields.<sup>51</sup>

*The Times* reported that the U.S. policy of secrecy was motivated by psychological, as well as security, factors. The article noted that the Hardtack I series had begun just as the Soviets were scoring a propaganda victory by declaring a moratorium on their tests, thus making the AEC reluctant to announce each of its shots to the world.<sup>52</sup>

The accurate Soviet test count was a small part of the “propaganda tragedy” the United States was suffering because it permitted the Soviets to seize the initiative of unilaterally stopping nuclear testing in 1958, *Times* Washington bureau chief James Reston wrote in an article labeled as “news analysis.” Reston lamented the opportunities squandered by U.S. leaders, who now conceded that they had developed the largest bomb long ago—referring to, but not specifying the 1954 Bravo shot (Pac. No. 10 in Appendix Table 1). Thus, Reston wrote, U.S. leaders could have acted unilaterally to stop testing.

Most surprising, Reston wrote, is that

...the United States, which pamphleteered its way to independence and elevated advertising and the other arts of persuasion into a national cult, should be unable to hold its own in a battle for the headlines of the world.<sup>53</sup>

A year later, practicing its own skillful art of persuasion, *The Times* published a minuscule 65-word article buried on Page 21, reporting that about 70 percent of the radioactive debris suspended

in the stratosphere resulted from U.S. nuclear weapons tests in the Marshall Islands with the remaining 30 percent resulting from Soviet tests.<sup>54</sup>

## Limited Press Access

Another practice leading *The Times* to largely ignore the contributions of the Pacific tests was the official limitation on press access. Only four of the 86 U.S. Pacific nuclear tests were witnessed by the press. The first two atomic detonations not obscured by wartime secrecy were turned into “a major media event.”<sup>55</sup> In 1946, 168 newsmen had been permitted to observe two tests with a combined yield of 42 kilotons. But, a decade later, only 15 newsmen had been permitted to observe two tests that were 90 times more powerful with a combined yield of 3,840 kilotons.

*Times* articles provide no evidence that the press or *The Times* was asking for more frequent observations of Pacific tests, even though, as discussed in Chapter 8, *The Times* had editorialized in 1946 that foreign journalists should be officially invited to witness Operation Crossroads.

Journalists’ renderings of the sights and sounds of the individual atomic spectacles transfixed citizens worldwide. But because the yield data was withheld or vaguely described *Times* readers were given no sense of the escalating magnitude of the tests catapulting the world into the hydrogen-bomb era.

## Operation Wigwam: Accentuating Technology, Ignoring Dissent

Keeping the world in the dark minimized the chances of popular protest, the U.S. government learned in 1955 in the case of Operation Wigwam. This operation also illustrates *Times* descriptions that emphasized U.S. technological prowess but that de-emphasized dissent about the impact of that technology. *The Times* gave double billing to U.S. technological prowess but only one story of 29 words for dissenting angry fishermen.

On May 10, 1955, *The Times* reported on Page 1 that the government would soon test an anti-submarine atomic weapon off the



West Coast. The underwater detonation would pose no threat to the fishermen, the fishing industry or consumers of fish, *The Times* article indicated based on the government's announcement.<sup>56</sup> But two days later, fishermen protested, stating fears that the test would damage the sardine and mackerel industries.<sup>57</sup> This 29-word story of dissent was placed on Page 5 in the bottom left-hand corner, one of the least prominent spots for visibility for readers.

The California fishermen were not the only ones concerned about the test to be held only 450 nautical miles southwest of San Diego. Modest *Times* enterprise reporting might have investigated the fishermen's fears because they came only 14 months after the Japanese fishing trawler dusted with the Bravo cloud had dumped tons of radioactive tuna in Japan, causing panic there and in U.S. supermarkets. That great tuna panic, which is described in Chapter 9, caused enough concern in the highest circles of government in Washington that the AEC held up, for a time, approving the Wigwam test. Chairman Lewis Strauss feared for the unknown "effect that a deep underwater test in the area suggested would have upon the food chain of commercially important fish," according to his letter to Secretary of Defense Charles Wilson of August 10, 1954, telling him to "examine the implications of Wigwam more fully." Then, once the test was approved, the Food and Drug Administration in Washington, which was responsible for monitoring radioactive tuna, initially refused to check the post-Wigwam fish. The Atomic Energy Commission's Division of Biology and Medicine was also alarmed at possible disruption of the U.S. tuna industry caused by a thermonuclear blast so close to the West Coast. The AEC fretted that more bad news about radioactive tuna would frighten major consumers of U.S. fish in Mexico and South America and might even undermine President Eisenhower's Atoms for Peace program. The AEC was also notified by the director of California's Department of Fish and Game, Seth Gordon, that he objected to the "biological desert" description used by Wigwam planners to designate Surface Zero, the oceanic test site. "We know there are no deserts in the ocean," Gordon said. "Fish in greater or lesser abundance are found everywhere."

The AEC decided to monitor fish in the area and was eventually assisted by food-and-drug inspectors. Two weeks before the blast

a press release was drafted that set out what the inspectors would officially discover and later announce: "No radioactivity at all has been found in commercial fish arriving from the area." As expected, the post-Wigwam results of the AEC's month-long tuna monitoring found no trace of radioactivity in the 50 million pounds of fish inspected from the Surface Zero site.<sup>58</sup>

A week after announcing the planned test, officials disclosed that the test had been conducted, and *The Times* devoted about a half column to the story on Page 11, or 15 paragraphs.<sup>59</sup> This story was described so that the U.S. test was pitted against the Soviet submarine build-up. This Soviet buildup would be countered by increased funding for U.S. atomic submarines, according to information in *The Times* article received from Senator Henry Jackson. The Democrat from Washington state headed the joint Congressional subcommittee on atomic military matters. This article was rendered more conspicuous by placing it next to a one-column photograph of the rear admiral who had overseen Operation Wigwam. As the only photograph on the page, it drew the reader's eyes to it and the headline next to it. Thus, *Times* coverage of U.S. technological prowess consisted of longer articles with bigger headlines and more conspicuous placement, often buttressed by the use of eye-catching photographs.

In contrast, *The Times* coverage of Operation Wigwam also consisted of news practices that gave inconspicuous placement to one brief article of dissent. Political scientist Michael Parenti explains that this kind of under-coverage, assuming a miniscule article is even noticed at all, can mislead readers, by "telling us what to think about a story before we have had a chance to think about it for ourselves."<sup>60</sup>

Although the AEC found that tuna at Surface Zero escaped radioactivity, some of the 6,800 U.S. servicemen aboard 30 ships at Wigwam were less fortunate. In 1979, *The Times* published an article about one of them. After 25 years, Elroy Runnels ended the servicemen's pledged silence about the effects of Wigwam and announced at a news conference before television cameras and reporters that he was suing the U.S. government for exposing him to fatal doses of radiation. Two days later he died from leukemia. His disclosures led the U.S. government to confirm the test, which *The Times* had written about in 1955, but also to deny that serviceman

had received enough radiation to be dangerous.

Runnels was not the only death blamed on Wigwam. Joan McCarthy called Wigwam “a human radiation” experiment that caused the death of her husband from lung cancer at the age of 44. In contrast to the “biological desert” description by Wigwam planners to the Surface Zero test site, her husband told her shortly before this death that “after the detonation for as far as the eye could see the ocean was covered with dead marine life.” Mrs. McCarthy’s words, addressed in 1995 to the President’s Advisory Committee on Human Radiation Experiments, also underscored the significant role that better press coverage about the radioactivity resulting from the first underwater Baker test explosion nine years earlier might have meant to Wigwam servicemen. “To me, not being better informed and warned of the possible health effects, I believe my husband and other participants were denied the ability to protect themselves,” she told the official panel members. “Tom’s life may have been extended had he been made aware and had the proper medical tests to obtain an accurate diagnosis earlier than four months before he died.”<sup>61</sup>

In 1983 a follow-up *Times* article spotlighted the achievements of the Center for Investigative Reporting in San Francisco in exposing what it described as “the story of California’s secret nuclear war” on a battlefield southwest of San Diego with 6,500 servicemen as the enemy. In *The Times* article, the Center was described as a group of freelance reporters who worked for a non-profit organization that had pursued information from Runnels’ press conference, interviewed scores of survivors and exposed a bombshell about Wigwam’s hazards to California and to servicemen in a lengthy magazine article and by working with the 20/20 television show.<sup>62</sup>

The Center’s enterprise exemplified the type of independent watchdog journalism that *The Times* could have uniquely performed years earlier beginning with the Trinity and Baker shots. But the newspaper of record missed that momentous opportunity, thus leaving readers like Elroy Runnels and Tom McCarthy in the dark and at risk.

## Blowing Pearl Harbor Off the Map

U.S. authorities did begin releasing information vital to citizens when forced to do so. Because the federal government had not been releasing information about the actual date of a Pacific test before the detonation, residents of Honolulu, on August 1, 1958, were startled and frightened from the burst of a 3,800-kiloton explosion of the first atomic device at Johnston Island, 800 miles from Honolulu. The refusal of U.S. officials to give advance warning of the test prompted an angry response from then territorial House Democratic legislator Daniel Inouye, who is now a U.S. Senator. "This is no joke," he told the Associated Press, as published in *The Times*. "People actually thought Pearl Harbor had been blown off the map. The military lets the people of Nevada know [of the nuclear tests]. Why don't they do the same thing here?" Hawaii Governor William Quinn had earlier asked that Hawaii be given advance warning of any nuclear firing at Johnston Island but the request had been denied on the grounds that AEC regulations prohibited public announcement prior to tests.<sup>63</sup> The explosive force of the shot, code-named Teak, was equivalent to 253 Hiroshima-size bombs.

The irate reaction of Honoluluans prompted the AEC to change its policy and to begin notifying Hawaii officials.<sup>64</sup> The announcements also led to a cultural phenomenon known as "bomb parties" in Hawaii. Given 18 hours' notice of the second Johnston Island blast, *The Times* reported, residents jammed beaches and waterfronts to view the explosion; homeowners with commanding views organized parties to watch the fireworks.<sup>65</sup> Their celebratory mood reflected their lack of awareness of the invisible, long-term and deadly radioactive menace to humans and the environment resulting from the detonation of ingredients comprising each nuclear weapon being tested only 800 miles away.

Some of this vital information hidden by *The Times* about the persistence and deadliness of radioactive products was unclassified and verifiable by scientists, as documented in Chapter 7. Information on the yields and the number of tests was concealed by the secrecy policy of the U.S. government that was left unchallenged—and even unquestioned—by *The Times*.

As a result, readers during the 16-year nuclear testing period when the equivalent of 8,580 Hiroshima-size bombs were detonated

in the Pacific were kept largely in the dark about the number and yield of weapons tests, the immensity of the infernos they created, the degradation of the environment that persists even today and the sacrifices made by Pacific Islanders who contributed so uniquely to U.S. military supremacy then and now.

U.S. Pacific bombing stopped in 1958 while negotiations at the United Nations international disarmament conference was held in Geneva. In September 1961, the Soviets resumed atmospheric nuclear weapons testing. Within several months, *The Times* reported on December 3, 1961, the Soviets had exploded about 50 weapons and had made substantial progress in weapons design. In terms of yield, these tests were greater than all previous Soviet tests and included detonation on October 30 of a 57,000 kiloton bomb, which was nearly four times as powerful as the Bravo shot of 1954.<sup>66</sup> Under pressure to catch up with the Soviets, President Kennedy announced on March 2, 1962 a resumption of U.S. Pacific nuclear weapons testing. A *Times* editorial backed Kennedy's move.<sup>67</sup>

In what it described as a change in policy, the administration announced on April 25 that each test individually in the Pacific would be disclosed when it was held, *The Times* reported. *The Times* article added that no reason was cited for the shift, suggesting that the press had not been clamoring for the change.<sup>68</sup> Yet, this so-called change was insubstantial because all 16 tests were being conducted at sea or at Johnston Island, where the AEC had earlier been forced to give prior notification to Hawaii authorities.

Several *Times* stories mentioned that the Kennedy Administration was seeking minimal publicity about the tests. Minimal publicity could hardly have been expected, however, by the unique—obviously newsworthy—nature of several tests. The flash from one explosion lit up the night sky from Hawaii to New Zealand, according to *The Times* lead article, producing “probably the most spectacular far-flung effects of any man-made event in history.”<sup>69</sup>

Despite advance notice of the upcoming tests not all residents throughout the Pacific got the word, and thus, *The Times* quoted one startled Samoan in Pago Pago, 2,000 miles away from the blast, as saying, “Crazy white man!”<sup>70</sup>

Bombwatchers in Honolulu had plenty to see. In only five

months, from May 6 to November 4, 12 completed tests were conducted and four additional ones were launched but failed. All but two of the 16 tests were launched from Johnston Island.

## Hotspots from the Highest Man-Made Blast in History That Failed

The four tests that failed were not included in the 1994 DOE list of U.S. nuclear tests<sup>71</sup>—even though spectacular failures had been announced in 1962 by the Kennedy Administration shortly after they occurred. *The Times* gave front-page treatment to all four official announcements.

The first test failed on June 2, 1962, in its mission to explode a thermonuclear device 30 miles above Johnston Island when it and the Thor missile carrying it had to be destroyed. *The Times* quoted officials as saying there was no danger the small fragments would “cause hazardous levels of radioactivity in ocean water or constitute a hazard to human life.”<sup>72</sup>

The second failure, on June 20, carried the same assurances from military officials that the debris from the destroyed Thor missile and megaton-range warhead constituted no danger to Johnston Island. If the test had proceeded as planned, it would have exploded the nuclear warhead at 200 to 500 miles into the atmosphere, making it the highest man-made blast in history.<sup>73</sup> A *Times* sidebar story that day indicated that a radioactive hotspot where the debris fell may last for centuries. Buried at the end of that article was a statement that if the device contained plutonium-239 or uranium-235 the radioactivity might exist for thousands or even millions of years.<sup>74</sup>

In the third test, *The Times* reported, a Thor rocket carrying a nuclear weapon burst into flames on the launching pad, where for more than half an hour a blaze fed by rocket fuels raged; no danger from radiation resulted.<sup>75</sup>

In the fourth test, a submegaton nuclear device that was to have exploded 30 miles high in the atmosphere was destroyed on October 15 shortly after the malfunction of its Thor rocket. Debris from the rocket and the nuclear device, including radioactive fragments, fell onto Johnston Island.<sup>76</sup>

A month after the end of these four fiery rocket-fed nuclear

blasts, the final shot in the U.S.-administered Pacific was announced by President Kennedy on November 4, 1962. The test itself received only a paragraph plus part of a sentence in *The Times* right-hand lead story on Page 1. Most of the article focused on the president's hopes that the U.S. cessation of the Pacific tests would prompt the Soviets to stop testing and to agree to "an effectively verified test ban treaty." In Nevada, he added, underground nuclear weapons tests that would be "free from fallout" would continue.<sup>77</sup>

In the 1962 operations, not only were much more powerful and sophisticated nuclear weapons tested, but they also were tested in conjunction with complex submarine or missile systems that could deliver the more deadly warheads further, faster and more stealthily.<sup>78</sup> Unknown publicly just before the start of another round of the international disarmament conference in Geneva, the explosive force from the 1962 shots was at least 12,580 kilotons or the equivalent of 838 Hiroshima-size bombs detonated over a six-month period.

A month and four days after the last U.S. Pacific weapons test, *The Times* ceased publication on December 8, 1962, because of a newspaper strike.

Less than a year after Kennedy's announcement of the last U.S. Pacific test, the U.S. and Soviet governments signed, on August 5, 1963, in Moscow, the Limited Test Ban Treaty. It banned the testing of nuclear weapons in the atmosphere, the oceans and space—the kind of experiments that the Pacific region had endured more than any other area under U.S. jurisdiction. On September 25, 1963, the treaty was ratified by the U.S. Senate. On October 11, it was in force. A month later, on November 22, 1963, President Kennedy was assassinated in Dallas. Less than a year later, on October 14, 1964, Soviet leader Nikita S. Khrushchev was deposed in Moscow. Two days later, on October 16, 1964, the People's Republic of China exploded its first nuclear bomb in the Xinjiang desert.<sup>79</sup>

# *The Times Defines Its Duty*

## *“We Must Accept Our Destiny as the Defender of the Free World”*

“The awful dilemma was that in order to preserve an open society, the U.S. government took measures that in significant ways closed it down.”—Senator Patrick Moynihan

The jubilation of U.S. bomb-makers over the success of the Trinity shot in 1945 produced no slackening of activities for General Leslie R. Groves, the mustachioed head of the Manhattan Project. Two days after the secret test in Alamogordo, the intense military engineer wrote a memorandum to Secretary of War Henry L. Stimson describing this historic first atomic detonation. Included in the top third of the six-page message was the disclosure that after the detonation radioactive material in small quantities was found as far as 120 miles away from Ground Zero. Then Groves added, “The measurements are being continued in order to have adequate data with which to protect the government’s interests in case of future claims.”

When he had first visited Alamogordo three months earlier to discuss Trinity, his first questions were about legal matters.<sup>1</sup> His concerns about future claims were well founded. As discussed in Chapter 3, within a month after the Trinity test, distressed ranchers whose cattle had blistered after receiving radioactive fallout filed complaints with the commanding officer of the Alamogordo Air Base. Thus, behind the scenes, even before the war had ended, U.S. leaders began practices to gather information to protect the government from legal liabilities and from unfavorable public opinion, but concealed this policy from the public under the guise of national security.

Later, as nuclear testing began escalating in 1952 from atomic



bombs to far more powerful H-bombs, the government's secrecy and deception increased, as discussed below. Top U.S. officials knew that the escalation of yield from atomic to hydrogen weapons in 1952 meant that the Soviets and seismologists could detect on their own any thermonuclear detonation, its location and its estimated explosive force. This revelation is borne out by the letter of Gordon Dean, AEC chairman, to President-elect Dwight Eisenhower discussing the Mike shot detonated October 31 at Enewetak Atoll. In his letter dated November 7, 1952, Dean told Eisenhower that the explosive force of the Mike shot as "the first full-scale thermonuclear device" was estimated at 10 megatons (or the equivalent of about 666 Hiroshima-size bombs). He wrote matter-of-factly that the island of Elugelab in Enewetak Atoll, used for the detonation, "is missing and where it was there is now an underwater crater of some 1500 yards in diameter." Then, he noted, "In view of the large number of personnel involved in the operation, and in view of the size of the detonation and the fact that the light could be observed at sea for several hundred miles, it is not likely that we can for long keep from the Russians the fact that there has been a thermonuclear explosion."<sup>2</sup>

The costs and consequences of the nuclear secrecy system established after World War II and escalating during the Cold War have greatly diminished "informed congressional and public debate on nuclear policy, constitutional guarantees, government accountability, and civilian control over the military," researchers studying the atomic age have concluded.<sup>3</sup>

However, these researchers were silent on assessing the performance of the constitutionally protected free press in permitting this overly broad secrecy. This chapter fills that research void by assessing the performance of a leading newspaper. *The Times* permitted this official secrecy to grow far beyond national-security purposes by the newspaper's uncritical acceptance of U.S. information policies relating to the number, yield and effects of U.S. Pacific nuclear weapons tests that were creating more menacing health and environmental consequences worldwide. As detailed below, *The Times* did little to challenge or even question this secrecy in its news reporting, in its columnists' writings and editorials or in the speeches of its executives that were reported in the newspaper.

The 16 years of U.S. Pacific nuclear weapons tests occurred during an uncertain period between the end of an actual armed conflict and the beginning of a Cold-War peace. Thus, after World War II, "the national security apparatus designed to keep information secret only expanded after the war, rather than being reduced," Senator Fred Thompson told the special Governmental Affairs Committee, which he chaired, in 1997.<sup>4</sup>

Ironically, the expanding secrecy apparatus began in the early 1940s when a young British nuclear physicist named Klaus Fuchs, from inside the Manhattan Project, had begun reporting to Soviet espionage agents the prized U.S. atomic-bomb secrets, including those at Trinity, and theories about building a hydrogen bomb. An argument could be made that *Times* science writer William Laurence, in reporting on those same developments, served as guardian of the government's post-war secrets by minimizing or denying the existence and persistence of radioactivity resulting from early atomic bombs. Yet while the American public was successfully kept in the dark about these developments, the Soviets knew all about U.S. atomic efforts and the effects of the bomb before the end of World War II.

## **U.S. Secrecy to Prevent Bad Public Opinion or Legal Suits**

After the July 1946 Bikini Atoll tests, U.S. scientific and medical officials set up a key Medico-Legal Board. Citing a 1945 document, historian-lawyer Jonathan Weisgall told the Senate Committee on Government Affairs in 1996 that "one of the main purposes of a Medico-Legal Board established at Bikini was to provide a paper trail designed to lay the groundwork for future denial of legal claims that might be brought against the U.S. government arising from Operation Crossroads." Within another year, Weisgall asserted, top U.S. officials discussed possible litigation from the sale of radioactive target ships as scrap and noted, as one participant reported, that General Groves "is very much afraid of claims being instituted by men who participated in the Bikini tests."<sup>5</sup>

By 1947, some medical experiments involving radioactive materials on humans were also classified secret. An urgent letter

between AEC officials urged tracking down three documents related to medical experiments on humans that had been submitted for declassification; they should be intercepted and then reclassified secret, the letter directed. The letter said that no document should be released "which refers to experiments with humans and might have adverse effect on public opinion or result in legal suits."<sup>6</sup>

Thus, from the earliest days of the peacetime A-bomb era, U.S. officials began to restrict information that might prove troublesome to the government in terms of legal liabilities or negative publicity.

By January 1, 1947, a clampdown on official information began. On that date, the Atomic Energy Commission assumed control of all U.S. atomic-related materials, properties and decision-making, under the Atomic Energy Act of 1946. The Act, passed on August 1, 1946, ended debates that had occurred within the Truman Administration over whether the military or the civilian bureaucracy would decide on and execute the nation's atomic energy program and administer the Pacific Islands that had been newly occupied by U.S. forces. The Act centralized power on atomic policymaking within both the executive and legislative branches.

The Act also established an information policy of tight control. It introduced a wholly new principle that certain data were automatically classified secret, meaning that such sensitive information was "born secret." This "restricted data" was defined as all information "concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or the use of fissionable material in the production of power." However, "restricted data" related to scientific and technical information should be disseminated so as to provide for the free interchange of ideas and criticism necessary for scientific progress.<sup>7</sup> This provision permitted the government to issue contracts for unclassified projects in basic research in medical and health studies; long lists of these were published in the AEC's semi-annual reports to Congress, thus indicating they could have been investigated by journalists. Because of this provision, some results of human radiation experiments that so shocked the nation a half century later were available in the public domain if journalists had been diligent.

Enactment of this "restricted data" information policy brought little coverage in *The Times*, according to an analysis made by access-

ing and close reading of 126 *Times* articles on news and government relations from 1946-62.<sup>8</sup> From the outset leading press organizations seemed to agree that information damaging to the national security would not and should not be published, a point made by president of the American Newspaper Publishers Association, Richard W. Slocum of *The Philadelphia Bulletin*, to a House Government Operations subcommittee in 1955. He added that newspaper editors “do not think, however, that we need to make the hard choice between abandoning our safety and abandoning our freedom. They think we can have both safety and freedom.”<sup>9</sup>

More controls were then initiated. In March 1947 President Truman issued Executive Order 9835, establishing the Federal Employee Loyalty Program and Congress set up the nation’s foreign intelligence system by authorizing creation of the Central Intelligence Agency. In words ominous for the United States as it initiates in 2004 more stringent post-9/11 security measures, Senator Daniel Moynihan described the resulting new climate in Washington:

American society in peacetime began to experience wartime regulation. The awful dilemma was that in order to preserve an open society, the U.S. government took measures that in significant ways closed it down. The culture that evolved was intended as a defense against two antagonists, by now familiar ones: the enemy abroad and the enemy within.<sup>10</sup>

## Newspersons as an “Enemy Within”

Moynihan’s “enemy within” category included newsmen being investigated by Senator Joseph McCarthy for possible ties to the Communist Party. In 1954, Senator McCarthy vowed to reveal alleged Communist infiltration in press, radio and television, especially in Washington. *The Times* carried ten articles and editorials on these 1954 investigations. The issue then escalated in intensity and *Times* coverage. McCarthy’s investigations left *The Times* untouched but the same was not true for Senator James Eastland, who intimated the newspaper would be a target of an investigation linking some of its employees with the Communist Party when it was still illegal or in disrepute.<sup>11</sup> In 1955, *The Times* carried 46 stories on investiga-

tions conducted by Senator Eastland and the same number was carried the next year. In response to prospects of being called before Eastland's committee in January 1956, *The Times* published a powerful editorial titled "The Voice of a Free Press," which some called the most significant statement of its principles since Ochs' original promise to publish news "without fear or favor."<sup>12</sup>

In it, *The Times* stated that although former *Timesmen* had testified to the committee that they had been members of the Communist Party, none was then on the company's rolls. "We would not knowingly employ a Communist party member in the news or editorial departments of this paper, because we would not trust his ability to report the news objectively or to comment on it honestly, and the discovery of present Communist party membership on the part of such an employee would lead to his immediate dismissal." Then in defiantly ringing tones, the editorial vowed that *The Times* would continue to condemn segregation in the South and the North, to criticize a "security system" that "conceals the accuser from his victim," to defend civil liberties and that it would prevail long after "the last Congressional committee has learned that it cannot tamper successfully with a free press."<sup>13</sup> The *Times*-Eastland confrontation had peaked. In the following year, 23 articles were published before the investigations began to taper off.<sup>14</sup>

In October 1951, *The Times* reported on Truman's signing Executive Order 10290 and on press groups denouncing that move. This order extended to all federal agencies the procedures for classifying and thus withholding non-military information having no bearing on national security or atomic energy affairs; in the past only the departments of state and defense held such authority. This issue about non-military information seemed to deflect the press's attention away from any continuing concerns about secrecy related to atomic affairs and national security.

The press did criticize some new government schemes to manage or control journalists. In November 1951, *The Times* reported, the Sigma Delta Chi, the professional journalism organization, urged newspapers to crusade against the little dictators who fear "that the public may come to know too much." The group also opposed such indirect types of censorship as off-the-record press conferences and the issuing of handouts for which no independent followup was

allowed. Some journalists criticized themselves too. For example, Louis Seltzer of *The Cleveland Press* accused U.S. newspapers of being “too superficial” in their reporting, depending too much on public relations handouts and doing too little investigative reporting.<sup>15</sup>

Moreover, secrecy could even damage security, as *Times* vice president and general manager Major General Julius Ochs Adler told military information officers in 1953. Speaking in his dual role as a newspaper man and as commander of the 77th Division of the Army Reserve, *The Times* reported, Adler warned that over-classification of documents was growing and that it often produced results opposite of those intended, adding that “secrecy and security are by no means synonymous.” He said contradictory evidence on the debate about the supply of shells to Korea during the war served as “an alarming example of the way in which secrecy can actually weaken security.”<sup>16</sup>

Along the same theme and during the same year, Hanson Baldwin decried the lack of vital, factual information available to Congress, civil defense officials and U.S. allies in Europe closest to the Soviet nuclear threat, which was needed for informed decision-making. In a two-part series titled “Atomic Secrecy” published on March 1 and 2, Baldwin generalized: “In nearly every field, unnecessary atomic secrecy is tending to set our minds in fixed patterns; we are indulging in shibboleths and calling them truths.

“Until the secrecy is reduced and the public, the foundation rock of any democracy, is more fully informed of the basic facts of the atomic age, we shall stultify progress and imperil our future.”

By 1955, members of Congress were discovering they too were having trouble getting information from executive agencies and consequently a House Government Operations subcommittee was formed under the chairmanship of Rep. John Moss, Democrat of California. But press problems related to getting atomic-related information were left unaddressed by the members of Congress and the Congressional witnesses, according to accounts of these sessions reported in a half dozen *Times* articles about these hearings. Significantly, when given their day before a sympathetic Congressional subcommittee, none of the newsmen, including *Times* senior editor Turner Catledge and Washington correspondent James

Reston, discussed secrecy at the Atomic Energy Commission or its information policies related to the Pacific tests and their health and environmental effects, according to *Times* accounts of the testimony.

By 1956, the Congressional subcommittee issued one of the strongest reports in years. It attacked the “paper curtain” of secrecy that resulted when government officials forgot that in a democracy the people made the final decision. According to *The Times* account, the subcommittee noted too much secrecy in the defense and commerce departments, but it was silent on atomic-related information or results of radioactivity. The report also indicated some officials had assigned investigative agencies to perform acts of “retaliation, intimidation and reprisal upon reporters” who had written news stories displeasing to the officials. A year later, the subcommittee noted the withholding of FBI files on investigations of security leaks by newsmen.<sup>17</sup>

### Creating the Fission/Fusion Confusion

In 1953, newly elected President Dwight Eisenhower introduced an information policy of obfuscation. As the nation was moving into the H-bomb era, the then-secret minutes of a National Security Council (NSC) meeting show that Eisenhower “thought it was unwise to make any distinction between fission and fusion weapons. Indeed, he thought we should suppress in all future official statements any reference to the term ‘thermonuclear.’” The process of combining or fusing lighter elements, especially those in hydrogen, produced far more explosive force in the more powerful thermonuclear weapons, often called H-bombs, in contrast to the splitting or fissioning process that produced the earlier atomic bombs.

AEC Chairman Dean, who had attended the meeting on May 27, 1953, six months after the Mike shot ushered in the H-bomb era, added in his diary, “The President says ‘keep them confused’ as to ‘fission’ and fusion.” For security reasons, the NSC said it implemented Eisenhower’s order by discontinuing the term “thermonuclear” in official statements and by using instead the word “atomic” to cover all nuclear weapons.<sup>18</sup> The secret minutes were declassified in 1979, appeared in a court transcript that was read at a joint Congressional hearing and were written about in *The Times*.<sup>19</sup> Thus

hidden from the nation and the world for 26 years was a secret policy of obfuscation that, in turn, hid from the world the escalation in the yield of weapons up to 1,000 times more powerful than the Hiroshima bomb and ones producing far more radioactive fallout.

This policy of obfuscation was followed, in the early 1960s, by one that became known as “managed news.” By 1962, *The Times* reported, the Cuban Missile Crisis had exposed the U.S. information policy that justified “managed news” and the right to lie to the U.S. people.<sup>20</sup> A *Times* editorial advised the U.S. government to keep silent rather than to lie to its own people because it is foolish, as well as unethical, to lie. The editorial cited the case of U-2 pilot Gary Powers, in which the U.S. government’s denial of deliberately violating Soviet air space, was not only untrue but it “was not even usefully untrue” because the Soviets then held the live pilot.<sup>21</sup>

## The “Hush-Hush” Policy vs. Hilltop Reporting

In covering government, *The Times* published numerous articles from 1946-62 about atomic secrecy as viewed by scientists,<sup>22</sup> private industry, foreign allies<sup>23</sup> and government officials.<sup>24</sup> But in its coverage about non-disclosures and closed access to the press on nuclear-related issues and events, *The Times* largely took a hands-off approach.

An analysis of 126 articles in *The Times* related to news and government relations from 1946-62 discloses that atomic secrecy and the effects of nuclear weapons testing on humans and the environment were given relatively little attention by *The Times* in its news items, in its columnists’ writing and editorials or in its articles about speeches made by its executives. Of the 126 *Times* articles studied, only 23—or 18 percent—involved the press and atomic-related matters. The 23 articles on atomic matters may be categorized as:

- 17 of the 126 articles (13 percent) indicating that the press asked for more access to or information about nuclear tests before they were conducted and only one of these related to the Pacific tests;<sup>25</sup>
- 4 articles showing officials appeared to initiate voluntarily more openness about nuclear tests;<sup>26</sup>
- 2 articles urging less information in the press.<sup>27</sup>



Left unasked or unexplained were why—again and again—journalists were denied access to more nuclear tests, especially when they could not be concealed in Nevada and could not be witnessed at all in the Pacific, as well as what were the numbers, yields and radioactive effects of the much more devastating tests that were being conducted half a world away.

Four of the articles studied related to press access to sources and sites during nuclear tests in Nevada. In 1951, a *Times* article and an editorial focused on the “no information” policy of the AEC and of its telling the 100 journalists gathered to watch a nuclear test at the Nevada site that they were “not invited.” Under the catchy headline reading “Tactical Bomb Test ‘Secrets’ Open to Thousands but Not to News Men,” *Times*man Gladwin Hill wrote of the comic situation of the AEC’s pretense of classifying information about the towering atomic cloud that journalists and townspeople could view from neighboring hilltops. Specific newsmen’s questions left unanswered were why the press could not talk to soldiers participating in the operation and why newsmen could not see the test as close-up as the troops. Only when journalists described the detonation as a “fizzle” did AEC respond to deny that assessment. A *Times* editorial then criticized this “hush-hush” policy. It concluded: “The atomic bomb is a weapon. It is not an idol before which we are required to keep silent and cast down our eyes.”<sup>28</sup>

In July 1962, *The Times* reported that newsmen asked why they were being barred from entering the Nevada Test Site during the non-military test of the first known detonation of any hydrogen type device—and the most powerful blast ever—in the United States. Because they were barred from the test site, newsmen moved to a hilltop several miles away to view the underground shot. Press Secretary Pierre Salinger said journalists were excluded because the site was near the area for the next day’s atmospheric weapons test, which was designed to study the peaceful uses of atomic energy.<sup>29</sup> *Times* articles showed no evidence that similar press pleas were made to witness Pacific tests, where hilltops were unavailable for press viewing.

This hilltop-viewing of a nuclear test by the press in 1962 followed an earlier, unsuccessful campaign made in a strongly worded *Times* editorial to persuade the Kennedy Administration to hold off

from resuming nuclear weapons tests; these had been halted in the Pacific in 1958. The editorial, in November 1961, said that the fateful decision of resuming nuclear testing would be “made by a few men in absolute secrecy. Yet before the United States decides to add radioactive pollution of its own to that of Russia’s the American people, as well as the people of the world whose atmosphere is thus to be polluted without their consent, will be entitled to ask certain questions.” Those questions included why underground testing could not be substituted when it would cause less fallout than would the planned atmospheric tests. The editorial asked for a re-evaluation of the policy on secrecy and concluded:

Fateful decisions affecting the welfare of all the peoples of the world and possibly of future generations, as well as our moral stature in the eyes of the civilized world, should not be arrived at in absolute secrecy by a few men on the presumption that ‘papa knows best’.<sup>30</sup>

But despite its strong words, *The Times* accepted and justified the resumption of Pacific nuclear tests once they had been announced by President Kennedy on April 24, 1962. Its editorial concluded: “As the United States approaches the tests it does so with a heavy heart but with the realization that we must accept our destiny as the defender of the free world and the future of all mankind.”<sup>31</sup>

Although not directly related to press access to Pacific nuclear testing or its health and environmental effects, other *Times* articles covered a range of concerns about secrecy in general. For example, in an article written before the first Bikini tests in 1946, Baldwin examined the U.S. government move “to put up intellectual bars around the country, intended to keep all foreign scientists out and all our scientists in.” Besides the dangers to scientists, Baldwin noted the problems to newsmen. Espionage laws being considered by the Senate Atomic Energy Committee would be tightened by making it a crime for any unauthorized official to reveal any military “secrets” and for any journalist or publisher to publish or broadcast such information. The definition of “secrets” was so broad, Baldwin judged, that many classifications of news vital to the public would be suppressed. That proposal was eventually dropped by the government.<sup>32</sup>

More than a decade earlier, a *Times* editorial urged the

Eisenhower Administration in 1959 to "reconvaass" the problem of secrecy that had resulted during the three Project Argus shots in the South Atlantic. As discussed in Chapter 1, however, Baldwin and *The Times* had suppressed for seven months information on those controversial shots, even though the Soviets knew details of the international project and scientists had presented research papers on it at a hotel across town from the newsroom.<sup>33</sup> Thus, *The Times* willingly criticized U.S. secrecy after the fact but even when it was unwarranted, the newspaper remained silent about it. Through its silence, *The Times* contributed to the perpetuation of secrecy, and, in turn, put the interests of the government ahead of its own readers.

### Truman's News Conference Jabs at Journalists

*The Times* news items indicate little evidence of journalists' persistent questioning of officials regarding U.S. atomic secrecy during the 16-year testing period. But one especially conspicuous exception occurred that sheds considerable light on the pressures on journalists during this tense period as the government was trying to curtail the flow of information it released and they published.

This exception was described by *The Times* as "an unusually long and spirited news conference" that the newspaper covered in a Page 1 article on October 5, 1951, just a day after the White House announced that the Soviets had exploded another atomic bomb. On an inside page were included the text of Truman's statement, a transcript of the news conference and two related articles. The president sharply criticized journalists and their publishers, *The Times* explained in its lead, because "95 percent of the security information of the United States already had been published by American newspapers and magazines." Truman accused the press and radio of providing vital information to potential enemies and thus prompting him to sign Executive Order 10290 expanding the scope of classified information.<sup>34</sup>

When a reporter asked for an example, Truman singled out for his accusations on breaches of security an article with illustrations in the January 1949 issue of *Fortune* that he said caused him to sign the executive order. As *The Times* reported, Truman criticized "publication by *Fortune* magazine of all the locations and maps of our atom-

ic energy plants, and publication in many newspapers of airviews of their cities, including Washington, New York, San Francisco, Seattle and Chicago, with arrows pointing to key points in those cities.”

“Reporters insisted such information had been given out by the military department,” *The Times* account continued, “but Mr. Truman replied bluntly that he did not care who had given it out, the publishers had no business to use it if they had the welfare of the United States at heart.”<sup>35</sup>

One reporter asked whether the air maps of the cities had not been issued by the U.S. Civil Defense Agency to help people protect themselves from atomic attacks. Truman agreed but added but he didn’t think they should be made available to the Russians. Again a reporter asked if the press got some information from the military, for example, did the primary responsibility to publish it rest with the agency or the publisher. Truman replied that without question publishers decided because they were careful not to publish many things that he had said. He warned that publishers should think about the welfare of the country the same as he did, adding that he was not trying to censor information, he was just trying to prevent the nation from “being wiped out.” Reporters responded by expressing fear that censorship would begin to be imposed by overzealous officials.<sup>36</sup>

Next to the text of Truman’s words, *The Times* carried a related article with the headline reading, “Fortune Says AEC Cleared Atom Article and Bought 500 Reprints for Distribution.” In it, the magazine’s managing editor, Ralph D. Paine Jr., said *Fortune*’s article that Truman had singled out, titled “The Atom and The Business Man,” had been cleared for publication by the AEC and had even been written with the consent of and developed in cooperation with that agency. Paine said the aerial view of a plant at Oak Ridge had been taken by an AEC photographer, was offered to *Fortune* by the agency and was also cleared by it. Other photographs had been taken from the AEC’s semi-annual report, which was on sale to the public. Besides, he added, most of the information was available in any decent library.<sup>37</sup>

Truman said he had signed the order restricting more information after Yale University had completed a research project for the Central Intelligence Agency and found that 95 percent of the infor-

mation classified by the government had been published in the press and in "slick magazines." And, he said, the Central Intelligence Agency agreed with the Yale University report. But when reporters asked Yale for the results of its project, *The Times* reported in another related article next to Truman's words, the University said that, under government orders, it had censored its own study on censorship.<sup>38</sup>

### ***Times* Executives as Newsmakers**

The 126 articles intersecting press-government relations contained 17 articles about speeches made by top *Times* executives.<sup>39</sup> Almost all of the speeches were given to professional or academic groups. What did these *Times* executives talk about in the atomic age that their own newspaper had done so much to spotlight?

An analysis of the 17 *Times* articles reveals that in none did the four top *Times* executives in their speeches discuss secrecy about atomic-related issues, the need for more information about Pacific nuclear weapons tests or the need for more information about human or environmental effects of these tests.

### ***Times* Columnists in Washington: Where News Is a Weapon**

Also generally steering clear of focusing on atomic secrecy issues were two of the nation's leading columnists—the two chiefs who successively headed *The Times* Washington bureau from 1946-62—Arthur Krock and James Reston. The 126 articles intersecting press-government relations from 1946-62 included 14 columns written by Krock and eight written by Reston.

An analysis of these materials shows that Krock skirted discussion of atomic secrecy or the need for more information on the effects of nuclear weapons testing on humans and the environment.<sup>40</sup> In one column, however, he explained how Truman's news conference detailed above had "mystified the capital," but he made no plea for more information. In another column on government information policy generally, Krock revealed in November 1962 that Big Brother's presence in the room during talks between the press

and government officials appeared shortly after the Cuban Missile Crisis. Then, he wrote, the Kennedy Administration had decided that the information flow and shape of military news were pieces of “weaponry” that needed to be controlled. Reston also skirted A-testing secrecy issues in eight *Times* columns.”<sup>41</sup>

In summary, even before World War II had ended, U.S. officials took steps to protect the government from legal suits arising from nuclear tests and from adverse public opinion, often stamping their policies as secret under the guise of protecting national security. This overly broad stamp of nuclear secrecy was largely uncontested by *The Times*, one leader of the supposedly free press often counted on to scrutinize government policies and actions for the benefit of the public.

Virtually ignored by *The Times* in its articles, editorials, columns and addresses by its executives was the near-blackout on official information about the yield, numbers and effects of U.S. Pacific nuclear weapons tests. This news blackout concealed, over the course of 16 years, the equivalent yield of 8,580 Hiroshima-size bombs. That’s 536 per year or more than ten nuclear weapons explosion per week or 1.4 explosions per day. While the poor reporting on the bombs has faded, their radioactive legacy persists today.

## CHAPTER 7

# *The Lost Millennia*

## *From Here to Near-Eternity*

“None of us need worry about conditions after five thousand years.”—President Truman

Laurence was a master at describing atomic weapons in terms of historical sweeps that leaped backward in time. For example, when he learned, in 1939, that an atomic bomb could be built, he instantly likened its inferno to the Second Coming of Prometheus, half a million years after the Greek god stole fire from the heavens and delivered it to mortals. But, Laurence surmised, “this new man-made Prometheus”<sup>1</sup> would be more powerful than any fire ever built before on earth.

Later, after having seen this atomic fire at work, Laurence described the mighty cosmic forces

such as had never been let loose on this planet in the million years of man’s existence on its surface, and probably never in the two billion years of the earth’s being.

In another passage describing the enormous achievement of U.S. scientists in producing the first man-made elements that included plutonium, Laurence wrote:

Here, for the first time in history, man stands in the presence of the very act of elemental creation of matter. Here in the great silences ... new elements are being born, a phenomenon that, as far as man knows, has not happened since Genesis.<sup>2</sup>

The bomb certainly does have a claim on a large sweep of time. But the real expanse was one Laurence consistently omitted from his first dispatches—namely the claim of nuclear weapons on our future: the 24,000-year half life and the 500,000-year radioactive existence of plutonium. Laurence was the first newspaperman to write about plutonium, which had been subjected to scientists’ self-imposed

wartime secrecy and even given a code name of 49 because naming the man-made element would serve to reveal development of a revolutionary secret weapon.<sup>3</sup> Only after the war was it referred to publicly as plutonium. It was named after the planet Pluto, which had been discovered amidst great fanfare in 1930 and memorialized the next year by Walt Disney, who named his animated dog after the discovery. And, as Laurence explained, that planet, in turn, was named after the Greek “god of death.” Laurence did not mention that Pluto was armed with a helmet that conferred invisibility on him.<sup>4</sup>

The sins of omission—about radiation during reporting on the A-bombings of Hiroshima and Nagasaki, of tracking radioactivity during the Trinity test, and of reporting on the plight of the Marshallese—was extended to coverage of the deadly properties of plutonium. Laurence’s pattern of omission was to be followed by other *Times* staffers, as shown below in the analysis of 128 articles indexed and published in *The Times* through 1962 when the U.S. Pacific nuclear weapons tests ended.

*The Times* post-war omission from news articles of information about plutonium’s deadly properties proved useful for the U.S. government seeking to lessen the risks of adverse publicity or legal claims. The government could not classify information on plutonium’s 500,000-year radioactive existence at the time because the concept of half-life was a scientific fact that had been known by specialists worldwide for decades.

Thus, in effect, *The Times* obliterated the future 500 millennia from its newspages, leaving readers in the dark about the longevity of this man-made radioactive element that played such a vital role in nuclear bomb-making and the legacy of it. Including such pertinent information in the first descriptions of plutonium was essential if readers were to be made aware of the long-term stakes of the emerging nuclear age. Because of the enormous implications for health and environmental safety, scholars and researchers today say this information should have routinely been included at the dawn of the atomic age in each news item describing plutonium.<sup>5</sup>

Laurence explained, in an early postwar article, the significance of plutonium. It could be separated chemically from the uranium found in nature, thus opening up the potential for an enormous increase in the total energy available, and it made atomic bomb-



making more efficient and less costly. It became a vital component for the nuclear bombs detonated at Trinity and Nagasaki and it would subsequently be also for those exploded in the U.S. Pacific nuclear testing program from 1946-62.<sup>6</sup> The Hiroshima bomb utilized uranium distilled through a complex gas diffusion process.

Plutonium was also of public importance because its generalized dangers were well recognized by insiders even while the first atomic bomb was secretly being developed and produced.<sup>7</sup> Before 1962 when the U.S. Pacific nuclear tests ended, research showed just how dangerous plutonium could be. In the Pacific Ocean, polluted heavily by radioactive debris from U.S. nuclear weapons tests, microscopic plankton absorb and concentrate radioactive elements like plutonium and funnel it into the food chain of tuna and other large fish that are a mainstay of many diets in Asia and the Pacific.<sup>8</sup> The radioactive alpha particles that plutonium emits are so slow and heavy that they can not penetrate paper or skin, but if they are ingested into the body through the mouth, nose or an open wound they attack internally for a long time and can cause cancer of the bone<sup>9</sup> or lungs. In addition, plants can access plutonium, thus leading to its being absorbed into the gastro-intestinal tract of humans.<sup>10</sup> By the mid-1990s, radiation specialists noted that traces of bone-seeking plutonium were present from nuclear weapons testing in the general environment and could be detected in the skeletons of the general population. These researchers note that the dose of plutonium to individuals was very small as was the risk of their actually ingesting or inhaling it. Even so, they added, "The number of persons exposed is very large, since everyone in the world is exposed to some extent."<sup>11</sup>

Throughout the period of Pacific testing, plutonium was considered as the most serious radiation hazard,<sup>12</sup> but later, short-lived elements like strontium and cesium proved more immediately troublesome. Plutonium has popularly been described for years as the most toxic element known to man. Glenn T. Seaborg, one of its co-discoverers, described it as "one of the most dangerous poisons that man must learn to handle."<sup>13</sup> And as one medical doctor explained in 1996, "Plutonium lives for 500,000 years and is so toxic that one-millionth of a gram is carcinogenic." Even so, when President Truman was told that bomb-producing materials "would not be dis-

sipated” even after five thousand years, he reportedly replied, “None of us need [sic] worry about conditions after five thousand years.”<sup>14</sup>

### CO-DISCOVERER GLENN SEABORG ON ‘FIENDISHLY TOXIC’ PLUTONIUM

Plutonium is so unusual as to approach the unbelievable. Under some conditions, plutonium can be nearly as hard and brittle as glass; under others, as soft and plastic as lead. It will burn and crumble quickly to powder when heated in air, or slowly disintegrate when kept at room temperature. It undergoes no less than five transitions between room temperature and melting point. Strangely enough, in two of its phases, plutonium actually *contracts* as it is being heated. It also has no less than four oxidation states. It is unique among all of the chemical elements. And it is fiendishly toxic, even in small amounts.<sup>15</sup>

Aspects of plutonium’s *half life* are illuminating for several reasons. First, the phenomenon of the half life of radioactive materials undoubtedly was familiar to Laurence because it had become known decades earlier, in 1898, when Marie Curie first coined the word *radioactivity* after observing that polonium disappeared spontaneously and reduced itself by half. When she died at age 67 in 1934, *The Times*, in a Page 1 article, attributed her death to radiation-induced illnesses; her household cookbooks were radioactive 50 years after she had used them.<sup>16</sup> By 1948, the AEC issued a matter-of-fact explanation that the half life of a radioactive element “is that period in which the radioactivity decreases to one-half of its original value—the period in which one-half of the radioactive atoms will disintegrate. In the next similar period, one-half the remainder of the unstable atoms will disintegrate, leaving one-fourth. In a period equal to three times the half-life, the remaining radioactivity will be one-half times one-half times one-half, or one-eighth.”<sup>17</sup> Thus, half of plutonium’s radioactivity decays away in 24,000 years; half of the remaining half of it will decay away in another 24,000 years and so on until after a total of 500,000 years all the radioactivity would have decayed. Once started, the half life cycle of disintegration of unstable parts within the atom is irreversible.

Second, the half life of an element was an immutable feature giving journalists an indisputable fact about which they need not seek differing interpretations before including it in their articles to provide context for readers. The half life of each element is different and plutonium's is not the longest. For example, U-238 has a half life of 4.46 billion years—about as old as the planet.

Third, the phenomenon of half life lay outside the pale of information classified for national security purposes; scientists in allied and unfriendly nations alike were aware of this immutable fact that was not subject to debate or to military classification as secret. Thus, Laurence and other *Times*men could have written about the half life of plutonium and other radioactive materials without impinging on national security.

Fourth, for *Times* staffers, the 24,000-year half life of plutonium—or its near-eternity of radioactive existence—is long enough to make it newsworthy by any standards of magnitude and significance to readers, but especially by the standard of public importance pioneered by *The Times*.

Fifth, for *Times* readers the phenomenon of half life was important because it would give them a sense of what was at stake in the emerging nuclear age. This stake extended beyond them to their children, their grandchildren and their descendants for generations to come.

## Laurence's Alchemy of PR

Just weeks after *The Times* joined the U.S. government in denying or minimizing the effects of radiation on survivors of the Hiroshima A-bomb and at the Trinity site, the newspaper distributed to the press nationwide, on behalf of the government, Laurence's 10-part series on the making of the atomic bomb, as discussed in Chapter 3. Three of the ten *Times* articles in that series were devoted entirely to discussing the history and process of developing plutonium, which Laurence described as "one of the great epics of history and as a distinct turning-point in the life of man on earth."

The three articles consist of 75 paragraphs, yet Laurence mentioned in portions of only three paragraphs the dangers of plutonium. In two paragraphs Laurence described the gigantic quantity of

radiation resulting from plutonium that would kill any living thing in its vicinity within a fraction of a second.<sup>18</sup> In the third paragraph of another article, Laurence described the huge plants equipped with remote-control instruments that needed to be built in order to protect workers from “the most dangerous radiations ever produced on earth.” Laurence extolled the history-making work of scientists as having performed “the greatest miracle of modern alchemy, to create two entirely new elements, neptunium and plutonium.”<sup>19</sup> Yet, he largely omitted mentioning an anti-miracle side included in the 500,000-year persistence of plutonium’s radioactivity.

The next year, at Operation Crossroads, Laurence witnessed the first atomic test at Bikini Atoll in 1946 and mentioned plutonium in only one paragraph of his 43-paragraph article. In that paragraph, he noted that from one to 100 kilograms of plutonium comprised the core of the Able test bomb. Only a gram of plutonium—about half the weight of a dime—was converted to energy, he wrote, and the remainder went into radiation.<sup>20</sup> By focusing attention on its small weight instead of its massive longevity, Laurence minimized concern that could be felt by his readers.

Laurence’s pattern of omitting the multi-millennial radioactive existence from his first narratives about plutonium was followed in other *Times* articles. This finding is based, in part, on an analysis of the descriptions of plutonium in *The Times* made by retrieving and closely reading the text of 128 news items listed in the newspaper’s indices from 1946-62.<sup>21</sup> The 128 news items consisted of a variety of *Times* formats: hard news, “News of the Week in Review,” the regular science section of the *Sunday Times* and the regular “Topics of the Times” column on the editorial page.

These 128 news items also showed that subject matter related to plutonium had moved, in just 16 years, from top-secret military usage in mid-1945 to a variety of other activities, including the commercial production of electrical power in countries overseas.<sup>22</sup>

The close reading of the text of the 128 news items shows that plutonium was described from 1946-62 in *The Times* in three fundamental ways:

- only one of the 128 *Times* articles told of the long half life of plutonium, thus indicating that the vast majority of *Times* articles were silent about its 500-millennia radioactive existence,

- only 13 other articles of the 128 (10 percent) told of the deadliness or radiotoxicity of plutonium, and
- none of the 128 articles mentioned the presence of plutonium in the U.S. weapons tests taking place in the Pacific region, where most of it was expended; but 21 percent of the articles did relate to the use of plutonium in foreign countries; no articles touched on nuclear waste.

## News Zero on Plutonium's Half Life

The close reading of the text of the 128 *Times* articles showed that only one discussed plutonium's half-life. Under a headline reading "Raremetal 'Bumps' Plutonium Poison," that article, in 1948, explained that plutonium "emits 140,000,000 deadly alpha rays per minute, and takes 24,000 years to lose its radioactivity by only one-half." The article did not go on to point out that the half life actually meant that 500,000 years would lapse before all radioactive plutonium decayed away.

This *Times* article is insightful for several reasons. First, the half life of plutonium was not prominently featured in the article, but was placed in the fourth paragraph of an eleven-paragraph article. Second, the article was not written by *The Times* staff; instead it was distributed by the North American Newspaper Alliance. Third, the article was published in 1948, indicating that by that early date in the atomic age the 24,000-year half life of plutonium was known to journalists with less weighty credentials than those of the *Timesmen*, who continued to withhold that material fact from their readers. Fourth, although the headline did not capture plutonium's half life, it did nonetheless alert readers that plutonium is a poison. Fifth, although the headline and the lead neglect to focus on the persistence of plutonium, this article was one of the few in *The Times* to capture so succinctly and graphically its deadliness. The lead paragraph in the article focused on the "plutonium poisoning responsible for thousands of deaths at Nagasaki and Hiroshima, and a constant danger to United States atomic scientists," saying that this poisoning could be countered in the future by a rare metal called zirconium. The article elaborated: "Plutonium poisoning causes death by breaking down the walls of veins and arteries causing internal hemorrhage. Death can be

almost instantaneous or may be delayed for several weeks.”<sup>23</sup>

Interestingly, two of the 128 *Times* articles mentioned in passing the very short half lives of two other elements in these news items but neglected to mention plutonium’s far longer, more newsworthy half life.<sup>24</sup>

### ***Times* on “Extremely Poisonous” Plutonium**

Only 13 of the 128 *Times* articles (10 percent) described the deadliness or radiotoxicity of plutonium. *The Times* article that most explicitly told of the dangers of plutonium disclosed the disappearance of a vial of the deadly element. This article disclosed in 1961 that a dime-size aluminum container of plutonium was missing from the Naval Research Laboratory in Washington. The next-to-last paragraph of a six-paragraph article contained a warning that if the vial were broken the material would be “dangerous if inhaled or ingested into the body of a person because it is extremely poisonous.”<sup>25</sup>

Two one-paragraph *Times* articles in 1960 implied danger from plutonium without explaining what the effects of it were to the human body. Both articles were conspicuously small. One from Paris reported that the French had shut down their atomic reactor producing plutonium after an accident occurred at their Marcoule plant in southern France; no one suffered radiation dangers.<sup>26</sup> Another article told of four workmen suffering possible contamination when a container of plutonium in a solution broke at the Los Alamos Scientific Laboratory. Detailed studies were being made of the workmen’s condition,<sup>27</sup> the article said, but no followup item was listed in *The Times* index.

Other typical *Times* articles mentioned only in passing the dangers of plutonium when public health was immediately involved. One in 1958 said safeguards were needed in constructing a research center because the man-made element of plutonium “is chemically toxic and emits dangerous alpha particles.”<sup>28</sup> Another brief article, tucked in the business section between ads and stock market quotations, described plutonium dust as being “poisonous to body tissues.”<sup>29</sup>

Although plutonium was known to bomb-makers from its

beginnings to be dangerous, U.S. officials in the AEC from the 1940s to the 1970s were nonetheless funding experiments in which solutions of it were injected into human subjects so as to glean “reliable information on the limits of human tolerance of radioactive substances,” as reported by award-winning journalist Eileen Welsome. These experiments measured such details as what organs of these human subjects were affected by plutonium most rapidly and in what ways. The experiments were being conducted even though a U.S. official acknowledged in a 1947 letter the risks to the government of this research: “The atmosphere of secrecy and suppression makes one aspect of the medical work of the Commission especially vulnerable to criticism.” In 1947, an international tribunal established the Nuremberg Code as the standard by which some doctors of Nazi Germany should be judged for their experiments on inmates of World War II concentration camps. Six years later, the U.S. Secretary of Defense used this Nuremberg Code as the basis for issuing a top-secret memorandum on human subject research that requires informed consent of the subject and prospects that the administration of the substance improve the condition of the patient. But the Secretary’s memorandum, issued only to the secretaries of the Army, Navy and Air Force, was not widely disseminated to researchers and retained its top-secret classification until 1975.<sup>30</sup>

## Ignoring the Plutonium-Powdered Pacific Islands

None of the 128 *Times* articles mentioned the great expenditure of plutonium in the Pacific region, where so much of it was being exploded with such unprecedented effects in nuclear weapons tests. But 27 of the 128 articles (21 percent) were about plutonium in foreign countries. This percentage is remarkably high considering that U.S. scientists had discovered plutonium and, from 1946-62, the U.S. government produced so much of it.

*Times* articles from 1946-62 noted plutonium-related developments in France (11 articles), Britain (nine articles), Canada (three), Soviet Union (one), East Germany (one), Israel (one) and India (one). Some of these countries had developed plutonium on their own—while the U.S. government debated whether to share its

secrets even with Great Britain, an ally that had helped it to develop the first atomic bomb in World War II. While U.S. post-war nuclear research focused on military advancements, Britain and France had moved ahead of the United States in developing plutonium and building facilities to produce electric power for civilian uses.

## Safe News from the World's "Largest Plutonium Production Plant"

Besides the 128 articles accessed on the basis of *The Times* index listings, one unindexed article is worth noting because it represents *Times* enterprise reporting. Military editor Hanson Baldwin, like specialized science writer Laurence, was regularly admitted behind the guarded doors of even the most top-secret installations and thus was able to access information unavailable to most reporters. However, when *The Times* initiated an assignment for Baldwin to visit the only U.S. plutonium-producing complex, his resulting article was not focused on questioning or discussing the half life or the dangers of plutonium. In 1950, Baldwin visited and produced a *Sunday Magazine* photo-text spread about the "New Atomic Capital" of Richland, Washington, which the government was building to replace the vanishing "tarpaper metropolis" of Hanford, Washington. Hanford was established in the middle of World War II to produce plutonium, which was an essential fissionable material in atomic bombs; in 1950 Baldwin gave Richland "the official title of the largest plutonium production plant in the world."<sup>31</sup>

In the two-page article, Baldwin devoted the last six paragraphs to the elaborate safety precautions enforced in Richland to contain radioactivity. Yet, in discussing specific radioactive materials for which officials instituted the safety measures, Baldwin focused only on Iodine 131 and Xenon 133, which he described as short-lived radioactive gases. He did not mention how officials handled the waste by-products of the long-lived plutonium. Even though the city he focused on revolved around plutonium, Baldwin declined even to hint of plutonium's half life and its multi-millennial radioactivity. Nor does he anywhere hint that plutonium is one of the deadliest substances in existence.<sup>32</sup>



Written in fluid, almost elegant style, Baldwin's article gives the illusion of informing the reader without substantively doing so. Truman's cavalier statement about problems five millennia hence may have a point; it's hard to worry that far in the future. Yet the problems of nuclear contamination are much more in the present: just 37 years after Baldwin's article, in 1987, this first and foremost U.S. weapons-grade plutonium-producer in Richland ceased operation due to safety concerns. It is not expected to open again. Health and environmental researchers consider Richland as the U.S. site storing the most liquid high-level radioactive waste and as the largest "and perhaps the most contaminated site in the U.S. nuclear weapons complex."<sup>33</sup>

### Consequences of *Times* Coverage of Plutonium

As previously mentioned, plutonium's long half life was an unclassified material fact that should have routinely been included in news items so as to apprise readers of the persistence and nature of radioactivity and to inform them of the true magnitude of the new era. In short, knowing this fact would have permitted readers to understand better the stakes of the nuclear age for themselves and for countless generations after them. It would have provided an earlier alert to workers in plutonium production sites and laboratories scattered around the country and to U.S. servicemen, Pacific Islanders and others near nuclear weapons test sites.

Without knowledge of the longevity and deadliness of plutonium's radioactivity, readers were unable to evaluate the policies of their government officials and to hold them responsible on a timely basis for managing an entirely new phenomenon that might affect the health of themselves, their children, their grandchildren and further descendants.

None of the 128 articles discussed plutonium's radioactivity in the Pacific region, thus masking for readers the degradation of the environment there, the hardships inflicted on the inhabitants and the worldwide impact touching virtually every person. What paths the United States could and would have taken had its citizens been informed isn't clear. But the degree of political sensitivity to tests on the U.S. mainland, and the fact that they were banished because

they were unpopular, makes one thing clear. Had the public known of the dangers, the destruction and the legacy of poison, it would almost certainly have forced the country and the world down a different path. Better and earlier U.S. press coverage would have confronted policymakers at the highest levels, not only in the United States but also in other nations including the Soviet Union, with the more urgent need to agree earlier to end atmospheric and underwater testing and perhaps to end the production of nuclear arms altogether. Billions of nuclear dollars might have been transferred to improve health, education and standards of living. Workers, servicemen and concerned citizens worldwide would have more quickly and emphatically demanded more safeguards in their workplaces, field assignments and communities. U.S. candidates campaigning to ban the bomb would have had access to better data and arguments, perhaps shifting the outcome of elections such as the 1956 presidential one in which Adlai Stevenson was defeated by President Eisenhower.

By withholding significant information, *The Times* failed to live up to principles that Ochs had advertised and to which his two successors through 1962 said they also adhered: to give all the news impartially without fear or favor, especially on matters of public importance, and to be a forum for all shades of opinion.

## **Don't Scare the Public "Out of Its Boots"**

Why *The Times* articles omitted vital, newsworthy facts about plutonium through 1962 is subject to speculation, especially since neither national security nor governmental secrecy was an issue in discussing a feature of plutonium well known to scientists worldwide. As noted in the Introduction, even *The Times* today cannot explain the news practices and management policies it applied to such an important issue in this earlier era.

Certainly Ochs' hidden policy of supporting the U.S. administration in power even in peacetime may have been an important factor that carried through to his two successors during the U.S. Pacific nuclear testing period of the Cold War, as documented in Chapter 1. More specifically, *The Times* might have omitted the information on the half life and radioactive longevity of plutonium so as to avoid

what one scientist called scaring the public “out of its boots by threatening it with new weapons.”<sup>34</sup> A second factor was voiced by Dr. Karl Morgan, director of the Oak Ridge Health Physics Lab: “It became unpatriotic and perhaps unscientific to suggest that atomic weapons testing might cause deaths throughout the world from fall-out.”<sup>35</sup>

As another example, the U.S. Central Intelligence Agency, in 1959, learned about a disastrous Soviet accident two years earlier when plutonium production wastes exploded at a nuclear weapons plant, resulting in the evacuation of 10,000 residents from their Ural Mountain homes, health and environmental researcher Arjun Makhijani reports. Yet, despite the propaganda value of disclosing the enemy’s disaster, he noted, the CIA made no announcement, apparently fearing “that Americans might awaken to the dangers posed by their own country’s weapon production.”<sup>36</sup>

Thus, publishing on a routine basis in each relevant *Times* article a negative fact such as the near-eternity of plutonium’s half life and radioactive longevity would have increased public awareness. But simultaneously it might also have increased public apprehension and protest about U.S. nuclear weapons tests being conducted so horrifically at Ground Zeroes in the Pacific Islands.

## CHAPTER 8

# *“Standing at the Gates of Hell Looking into Eternity”*

**F**ive months after the war ended in the Pacific, Bikini Atoll became the center of the world's attention. On January 24, 1946, the Atoll was identified as the site for detonations of atomic bomb Nos. 4, 5 and 6. These were to be the first atomic explosions that were not shrouded in the wartime secrecy that had surrounded the bombs detonated at the Trinity test site and above Hiroshima and Nagasaki six months earlier. A-bomb Nos. 4 and 5 were included in the 86 U.S. nuclear weapons tests held in the Pacific from 1946 to 1962; No. 6 was canceled.

These 86 U.S. Pacific nuclear weapons tests created immediately and directly three categories of atomic victims: “nuclear nomads” removed from their homelands before the detonations, irradiated islanders and irradiated U.S. personnel. Bikinian and Enewetak inhabitants, like other oral-tradition peoples in the Pacific, had deep ties to their land, as noted in Chapter 4. A scarce resource on volcanic islands and on atolls like Bikini, land largely defined their lifestyle and linked them with their ancestors.<sup>1</sup> The Bikinians' land consisted of twenty-six islands with a total land area of 2.32 square miles that enclosed a lagoon of about 243 square miles. On March 7, 1946, the 170 inhabitants of Bikini Atoll were dispossessed due to scheduled nuclear testing.<sup>2</sup> In 1947, more “nuclear nomads” were created by the displacement of 142 Enewetak Islanders to pave the way for the testing of even more destructive weaponry. For the next half-century, inhabitants of both atolls became “nuclear nomads.”<sup>3</sup> The Bikinians and some Enewetakese remain so today.

### **Reporting the Congressional Concerns of “Civilization”**

On January 24, 1946, Vice Admiral William H.P. Blandy, who

was to head Joint Task Force One, which would conduct the upcoming tests, told the U.S. Senate's Special Committee on Atomic Energy that with "an eye to its possible significance," he and others had chosen the codename of "Operation Crossroads" to designate the target dates and sites for the three proposed atomic explosions at Bikini.<sup>4</sup>

Plans for the first Crossroads test at Bikini Atoll, dubbed Able, called for the U.S. military's A-bombing 95 ships—which would constitute the size of the world's fifth largest navy—to prove that atomic warfare could not destroy the effectiveness of a naval task force and thus would not render the U.S. Navy obsolete. Plans for the second test at Bikini Atoll, dubbed Baker, called for the atomic bomb to be detonated underwater to determine its effects on the vessels that survived the first blast. The third test was canceled.

During the next four months, three more Congressional hearings were held to consider whether these three Operation Crossroads tests should be authorized. During the four hearings, U.S. Congressional and military officials gave scant attention to the effects their plans of historic proportions would produce on the target Pacific Island and its inhabitants. A short discussion held in one hearing between the admiral and the congresspersons on the dangers of radioactivity was left uncovered in *The Times*.

*The Times* gave even less attention to these inhabitants and their homelands than did Congress during early 1946 when the decision to hold Operation Crossroads was being made. Moreover, a study of *Times* articles indicates that journalists, including *Timesmen*, neglected to ask whether these atomic bomb tests, necessitating the forced migration of the Bikinians and Enewetakese, should even be held at all.<sup>5</sup>

In that first, half-hour hearing on Senate Resolution 1, Blandy detailed the geographic location of Bikini Atoll and the depth of its lagoon. Pointing to a map of the Pacific, Blandy explained that Bikini Atoll lies in the Marshall Islands about 4,000 miles from San Francisco, 2,100 miles west-southwest of Pearl Harbor and 2,000 miles from Tokyo. And, Bikini Atoll is about 200 miles east of Enewetak, whose people would probably have to be temporarily evacuated because the westerly winds could carry radioactive clouds to it within a matter of hours.<sup>6</sup> He didn't mention the Bikini people.

In a classic move of propaganda, where an issue is raised but then minimized, *The Times* article reported the admiral's comments that the people of Enewetak might have to be evacuated but added that the island would probably be habitable after the tests. Then, unlike the admiral, *The Times* stated, "What will happen to Bikini remains to be seen." Of the 41 paragraphs, only 3.5 paragraphs discussed the people and their homelands and these paragraphs were inconspicuously placed at the bottom of the article on the inside page. It may seem incomprehensible that the newspaper of record could treat issues of evacuation and possible permanent loss of homeland so lightly. But *The Times* indicated, with startling clarity, that its main concern lay elsewhere. In discussing the possible spread of radioactivity, the article indicated that little danger existed of "the contaminated water's reaching civilized shores."<sup>7</sup>

Five days later, the second Congressional hearing was held and it too focused little attention on the targeted Pacific atoll and its 167 residents that Admiral Blandy told the House Naval Affairs Committee he estimated would have to be evacuated to another atoll. When asked to which atoll, Blandy replied that the commander in chief of the Pacific Fleet would decide.

"Has our Government or the Navy Department yet undertaken any means to compensate these people?" asked Representative Michael Bradley of Pennsylvania. "There are not a great number of people, but they ought to be provided for."

"Yes," Admiral William Blandy replied. "Their interests will be safeguarded in that respect."<sup>8</sup> To some, this expression of concern may seem touching. But it takes place entirely inside the context of a U.S. understanding of the market economy: with land as real estate, all that is needed is "compensation" and to be "provided for." Looking at it from the view of those on the receiving end of this benevolence, they were losing ancestral lands that defined their identity and could never be replaced, and they were to receive "compensation" on terms largely defined by the Westerners.

This meager colloquy about the future of the Bikinians was ignored in the *Times* five-paragraph article on the hearing.<sup>9</sup> The committee gave little attention to the Pacific region—only a half page of the 33 pages of testimony—and *The Times* gave it no attention at all. The last two hearings were before the Senate Naval

Affairs Committee and not covered at all by *The Times*.<sup>10</sup> U.S. officials gave the Islanders little attention, devoting to them about a half page in the 15-page transcript of this Congressional hearing. The main content of the hearings was on operational issues. Such a focus on questions of whether naval vessels would be affected by atomic weapons neatly sidesteps the moral issues. "Should we do this" gets transformed into "How are we going to do this," a transformation applied to U.S. actions in Vietnam, the first and second Gulf Wars, and other interventions.

A month later, Blandy and other key officials appeared again before the Senate Naval Affairs Committee.<sup>11</sup> One purpose of the Bikini tests was to learn more about the effects of the atomic bomb on living creatures, Blandy told the Senators, adding that U.S. medical teams had arrived too late after the atomic bombs were dropped on Hiroshima and Nagasaki to assess accurately the immediate effects on human beings. The Bikini tests would help U.S. officials assess the effect of radioactivity, including radioactivity in "green water"—Navy jargon for torrents of water—that might be contaminated with fission products and make the ships uninhabitable for weeks or perhaps longer.<sup>12</sup> Blandy's point is significant because after the Bikini Atoll tests U.S. servicemen were given no instructions or gear to protect themselves as they scrubbed down the radioactive ships. Decades later, as discussed in Chapter 10, many of their diseases are presumed to be radiation-related and are compensated for by the U.S. government.

None of the eight Senators present directed a follow-up question to Blandy or to the two key scientists who also testified on the dangers of radioactivity. And no *Times* article was published about this session.

In summary, as detailed in Appendix Table 3, Congressional committees devoted only two pages of the 79 pages of documentary transcripts to discussing the Bikini and Enewetak Islanders. *The Times* also gave the Pacific Islanders scant attention, devoting 4.5 of 47 paragraphs to these islanders and their homelands. Two hearings were not covered by *The Times*, including one in which officials discussed the dangers of radioactivity arising from Operation Crossroads.

Perhaps even more significant, *The Times* relied solely on official sources in its coverage of Congressional sessions. All eight of the sources cited in *The Times* articles about committee hearings were

government officials. Because the Truman Administration engineered Operation Crossroads, these officials publicly defended the tests, thus skewing each and every article in *The Times* coverage so that the preponderance of space and more prominent placement went to the side strongly in favor of conducting the atomic tests at Bikini Atoll. Conspicuously missing were any non-official sources such as scientists; some opposed the operation, as detailed below.

In setting the agenda for public discussion, these four Congressional hearings had focused on whether the Navy should be authorized to use its vessels to determine the effects of atomic weapons on them. *Times* enterprise or news analysis articles also emphasized this operational question, thus ignoring the underlying question of whether the tests were needed at all. In editorials and articles, *The Times* clearly favored Operation Crossroads. In a string of news analyses, military editor Hanson Baldwin was unequivocal in doing so. For example, he wrote in April, after President Truman had postponed the first scheduled dates for the test, that “well-meaning but muddled persons, in and out of Congress, are proposing the permanent cancellation of the tests.”<sup>13</sup>

The day after the announcement of the test at Bikini, a *Times* editorial explained and strongly backed the Navy’s rationale for holding Operation Crossroads—and holding it so soon after the end of the war. The editorial consisted of four long paragraphs. Two of these focused on the secondary question of whether the tests should be open to foreign observers, a question that *The Times* described as controversial. *The Times* argued the tests could and should be open to foreign observers, including the Soviets and other members of the United Nations Security Council. Four days later, another editorial, of one paragraph, applauded the U.S. government’s approval of the idea of inviting foreign observers to eyewitness the Bikini tests, saying that such a move would make the taming of the atomic bomb an international affair and would provide “an eyewitness appreciation of the destructiveness of the weapon.”<sup>14</sup> This championing of the cause of foreign observers and journalists provides a strong contrast to the subsequent silence of *The Times* about advocating more access for the foreign or U.S. press to the more destructive Pacific weapons tests that followed.

Articles in *The Times* provide no evidence of reporters’ ques-



tioning or exploring whether Operation Crossroads should be held at all, thus necessitating the forced migration of the Bikinians and the degradation of the immediate environment that sustained them. *The Times* articles show few journalists questioned the necessity for the test, even though a resolution to cancel the test had been introduced in the Senate, and supporting senators noted that leading atomic scientists opposed the detonations.<sup>15</sup>

## De-Emphasizing Dissent

Aside from opposition arguments made in official proceedings that were open to the public and covered by numerous journalists, *The Times* de-emphasized dissent by giving scant coverage to those opposing the tests. This scantiness included opposition from a Congressman representing Brooklyn, a proximity that under journalistic standards might have increased the local news value of his views for a *Times* article. But the *Times* buried, at the bottom of Page 4, a one-paragraph brief that Democratic Representative Emanuel Celler had introduced legislation to outlaw the use of atomic energy as a military weapon.<sup>16</sup>

Many scientists opposed Operation Crossroads on the grounds that it was purely military and of little use.<sup>17</sup> The most prominent assessment came from J. Robert Oppenheimer, who was a key source dating to pre-war days for *Times* science writer William L. Laurence and one of the most prominent scientists who had helped to develop the atomic bomb. Yet, as Jonathan Weisgall reported years later, Oppenheimer explained his opposition to Operation Crossroads in a blunt letter to President Truman two months before the first test at Bikini Atoll: "I do not think that naval applications are the important ones to test, nor that the test as it will be carried out will in fact be a good measure of naval applications, nor that the measurements which are to be made are the right measurements to be made."<sup>18</sup> *The Times* buried the scientists arguments and did not mention Oppenheimer's assessment. A newspaper committed to fair investigation of the issues would have immediately seen how central the objections were. A simple argument can always be made: the ends justify the means. But if the tests weren't useful militarily or scientifically, if there were no meaningful ends to be justified, then risking

the lives, displacement of peoples, and permanent harm to the environment become untenable. Focused on the arguments of the government, *The Times* neglected to present these issues to its readers.

The significance of ignoring these critical alternative views in setting the agenda for public discussion about launching the first atomic tests at Bikini was detailed, in 1961, by political scientist E.E. Schattschneider of Wesleyan University in Middletown, Connecticut:

... the definition of the alternatives is the supreme instrument of power; the antagonists can rarely agree on what the issues are because power is involved in its definition. He who determined what politics is about runs the country, because the definition of the alternatives is the choice of conflicts, and the choice of conflicts allocates power.<sup>19</sup>

In its letters to the editor column, however, *The Times* held to Ochs' tradition that opened up a small space in each daily newspaper to print readers' views on different sides of a question, including those opposed to its own editorial stance.<sup>20</sup>

### “Are They All Natives?”

After Congressional committees had approved the Navy's operation, debate on the issue moved to the floor before the full House and Senate. A Senate resolution to cancel the Bikini tests was sponsored by freshmen Democrats James W. Huffman of Ohio and Scott W. Lucas of Illinois. It was debated on the Senate floor on March 29, just a week after President Truman re-scheduled Operation Crossroads from May 15 to July 1.

*The Times* covered this floor action on Page 1 with a continuation inside in a total of 14 paragraphs, six of them strategically placed above the fold in the middle of Page 1.<sup>21</sup> *The Times* devoted four of the six paragraphs on Page 1 to the support for the cancellation resolution by the chair of the influential Committee on Naval Affairs that had just authorized the Navy's experimental use of ships for the two Bikini tests<sup>22</sup> and presented in nine paragraphs the two sponsors' arguments. *The Times* noted that the sponsors' principal argument was that the awesome military power demonstrated by the proposed two atomic bomb explosions at Bikini Atoll would sabo-

tage the freshly initiated efforts by the Truman Administration to place atomic weapons under international control and inspection.<sup>23</sup> "This is no time for martial gestures," Huffman explained.<sup>24</sup> Underneath that story on the inside page, *The Times* noted the views of two scientists who expressed, at a news conference, their support for the tests; both were members of the evaluation board President Truman had appointed.<sup>25</sup>

How can this be seen as anything but fair and balanced reporting? Here are opponents of testing gracing Page 1, their arguments fully presented. Surely this fulfills Ochs' principle of presenting different sides of the story. It is incorrect to characterize *The Times* as shying away from debate. But a key technique of propaganda is to present fierce contention within a narrow range. By appearing to air all views, *The Times* persuades readers of the fairness of the reporting. Yet one crucial piece is missing. The impending effect of the detonations on the Bikinians and the environment that sustained them was given the briefest of mentions in the Senate floor session<sup>26</sup> and was not mentioned in *The Times* article at all. Opposition by powerful politicians rates coverage; others are excluded. And when the voices of those most affected are not even sought or considered, their concerns are presented through a prism that reflects only the perspective of the powerful. These hearings offer a fascinating example of that dynamic at work.

A brief discussion about the Bikinians arose when the Naval Affairs Committee Chair David I. Walsh of Massachusetts, a former admiral, explained that about 165 persons living on Bikini were to be transported to some other locality.

Lucas asked, "What kind of people live on the island?"

Walsh responded, "Natives."

Lucas queried again, "Are they all natives?"

Walsh said yes.

Lucas asked if they had all been removed and Walsh responded that they would be.

Lucas noted, "It would be quite a test in itself to remove the natives from the island."

Walsh agreed, saying, "It would be, together with other delayed costs, a very expensive test."<sup>27</sup>

The equation here is interesting. Officials are essentially

acknowledging that the inhabitants will resist removal. Yet the issue is not discussed in moral terms—do these people have a right to keep their land?—but only in terms of economics: It's "a very expensive test." This is very important: if all loss can be expressed in monetary terms, it can be compensated. But if ownership is expressed in terms of ancestral and sacred heritage, then the power of choice would have rested with the islanders. Yet incredibly, even these brief comments about the fate of the Bikinians and their homeland then and perhaps well into the next millennium were absent from the pages of *The Times*. In the end, the resolution to cancel the Bikini tests was defeated and not even assigned to a committee and voted on. Operation Crossroads was moving ahead.<sup>28</sup>

Several weeks after the hearing on the Senate resolution, Representative Louis Ludlow of Indiana also tried on the House floor to stop the tests.<sup>29</sup> *The Times* declined to cover this session.

One final move of dissent was made by Huffman and Lucas when the resolution authorizing the Navy to use vessels for the atomic experiments came up for final Senate passage on June 14, just two weeks before the first Bikini test. In covering the overwhelming Senate vote approving Operation Crossroads, *The Times* portrayed the two Midwestern Democrats as "almost alone in their battle against the air and surface blasts to be turned loose next month."<sup>30</sup> *The Times* article ran for a full column on Page 4. But the Senate, virtually ignoring Huffman's resolution, passed handily by voice vote the authorization needed to launch Operation Crossroads.<sup>31</sup> This *Times* framing of these two lone Senate dissenters seemed to bend over backward to implement Ochs' principle of giving news coverage to all shades of opinion on a question of public importance. But the news was too late to matter because the question had already been answered by President Truman and his administration.

In three floor discussions, members of Congress devoted to the islanders only about one-quarter of a page out of 14.5 pages of transcript, thus continuing to give scant attention to them. In this context, can *The Times* be faulted for not discussing an issue in their two stories totaling 26 paragraphs that barely surfaced at the hearings? Of course it could. A more balanced view would have reported not just the debate within the halls of the powerful but the voices of those affected or in opposition.

In 26 paragraphs comprising two stories about these floor sessions, as shown in Appendix Table 3, *The Times* did not mention the Pacific Islanders or their region. Like in committee sessions, only official sources were cited in its articles.

### **"The Good That May Come": Other Media Coverage as Bad or Worse**

Rather than questioning the necessity of Operation Crossroads, other journalists focused on a different question that Baldwin had virtually ignored—inter-service rivalry. A graduate of the U.S. Naval Academy, Baldwin solidly backed the experiments no matter how they were conducted or by whom. But other news reporters and columnists covered to the hilt the post-war inter-service rivalries that they said were the driving force behind the testing. Even so, "most newspapers supported the tests," Weisgall notes,<sup>32</sup> as did *The Times*.

The press generally overlooked any discussion about the longevity and possible dangers of radioactivity. Such an unquestioning beginning by the press facilitated what researchers described as "an intensive media buildup," with government public relations specialists setting the tone for press coverage of the nuclear experiments soon after Bikini Atoll was picked as the A-bomb test site. These researchers indicated, "With the mass media uncritically relaying the military's line, the public image of Operations Crossroads became one of self-defense and even humanitarianism." *Newsweek*, for example, headlined a preview with "Significance: The Good That May Come from the Tests at Bikini." But, researchers noted, "missing from the press billing of Operation Crossroads were any serious suggestions that subjects of the atomic test experiments included human beings."<sup>33</sup>

Even before images and words of the atomic tests arrived from Bikini Atoll, the U.S. public was in an uproar about the experiments—but not because of the impact on the islanders and their homelands and for all of humanity. Instead, pickets marched in Washington with such signs as, "Bikini: Rehearsal for World War 3." Thousands of protest letters poured into Washington from writers such as veterans decrying the destruction of their favorite ships, from church groups and animal humane societies. These protests were not

without impact. When it was learned that the Navy planned to put dogs at Ground Zero, dog lovers rebelled and the Navy had to back down.<sup>34</sup> It is an important comment on American culture when dogs win while “natives” lose.

## A “Major Media Event” for An Exile Without End

In contrast to the minuscule official attention given during the Congressional hearings and pre-test *Times* coverage to the Bikinians, their actual removal from their homelands became “a major media event.” It served the military’s purposes well. Lawyer-historian Jonathan Weisgall quoted one military officer describing the media event as “one hell of a good sales job.”<sup>35</sup> But after being exiled from their own homelands, the Bikinians were ignored by *The Times* for 16 years except for a major expose about their near-starvation. Thus, U.S. news coverage of the Bikinians from 1946 through 1962 vacillated between two poles—star status and periods of invisibility. The star status of the Bikinians sprang from their forced migration from their homes. *The Times* described their migration in a wide variety of nine news items, four in its own magazine and five hard-news articles and stories.

*The Times* provided almost as many items of coverage in visual form as in written, four of nine. Its emphasis on the visual in this pre-television era was in keeping with the government’s approach to recording the tests. “The explosions were to be the most thoroughly photographed moment in history,” Weisgall wrote. “Nearly half the world’s supply of film was at Bikini for the tests, and photographers prepared specialized equipment that would take 1 million pictures in the first few minutes” after the first explosion.<sup>36</sup> A *Times* background article described the Bikini tests as “one of the most thoroughly press-agented shows in modern history.”<sup>37</sup>

## “These People Are More Like Us Than Mice”

Of the nine *Times* news items about the removal of the Bikinians, a comic-book-like text-drawing was the most unusual. It stood out in *The Times* because Ochs, in 1896, had banned the comic pages in order to set his newspaper further apart from the “yel-

low journals." Published four months before the event in *The Times* Sunday magazine, the drawing-text combination laid out the first atomic bomb explosion at Bikini Atoll to provide "a picture as authentic as can be obtained of how" Operation Crossroads may proceed. It consisted of 16 blocks that resembled two pages of a comic book and carried a headline and five paragraphs titled "Operation Crossroads."<sup>38</sup>

The comic-book look was produced in 16 drawings in captioned cubes. Cube 1 depicted "the massive, multicolored cloud" rising 20,000 feet high that reduced Hiroshima to rubble. The other drawings carried the process through a planning session of Joint Task Force One through the dropping of the bomb on Bikini Atoll, collecting the data and finally analyzing the data in Washington, thus translating the findings into future recommendations and more U.S. plans. The overall theme for all 16 cubes was emphasis on the power of the United States, based on the destructiveness of the atomic weapons it monopolized.

Only two of the 16 cubes depict the Pacific region and its people. Cube 3 showed a map with Bikini Atoll so small that a magnifying glass is depicted to render the land area visible, thus erroneously suggesting a vast, uninhabited expanse unlikely to be affected by the destructiveness—and invisible radioactivity—of the upcoming operation. Cube 4 showed half a dozen of "the 161 natives of Bikini" preparing to board a ship and being helped by a sailor. Several carry a pig or belongings on their head. The profiles of the two most conspicuous Bikinians suggest Negroid features of thick lips. The drawing hints at two other embedded messages:

- U.S. superiority—the huge ship dwarfed the humans transporting their own goods and animals;
- the "helping hand" gesture that subordinates the Bikinians to the generosity of the sailor.<sup>39</sup>

In suggestive ways, Cube 4 depicts, perpetuates and reinforces racial and cultural assumptions of superiority that the dominant white culture has held for centuries over oral-tradition peoples and non-white groups.<sup>40</sup> This sense of superiority also showed up in the closed-door discussions held among the white participants in official

meetings during this period, according to a declassified memorandum that later became available. For example, the oft-cited minutes of a secret meeting of the AEC in 1956 quotes Dr. Merrill Eisenbud, who was interested in expanding his animal studies to data collected from Marshallese: “[w]hile it is true that these people do not live, I would say, the way Westerners do, civilized people, it is nevertheless also true that these people are more like us than the mice.”<sup>41</sup> Release of once-classified documents like this one by the U.S. government since 1993 have given credence to grievances long held by Marshallese that they were treated like guinea pigs during and after the U.S. nuclear tests.

*The Times* hard-news text coverage of the forced migration of the Bikinians relied on two wire service articles of only several paragraphs that were placed in the last portion of the news section. On March 12, The Associated Press sent, from Washington, a three-paragraph article about the planned displacement of the Bikinians. In the dispatch as published in *The Times*, the AP cited a Navy announcement that “King Juda and his subjects” had been moved after unanimously agreeing so as to make “their contribution to the advancement of science.” Describing Juda as a king was an inaccurate shorthand way of equating him with Western notions of hierarchy. The number of persons removed was not mentioned. They were moved to uninhabited Rongerik Atoll. It lay to the east, which was “therefore upwind from the spot where the radioactive clouds from the atom bomb test will originate.”<sup>42</sup> The second wire service article in *The Times* described the Bikinians as gladly agreeing to leave their homeland if it would “help preserve world peace.”<sup>43</sup> The Bikinians did consent to go, but as Weisgall notes, “the option of staying on Bikini and telling the United States to look elsewhere was simply not realistic.” That non-option was especially true because President Truman had approved Bikini as a test site one month earlier and a U.S. vessel was already blasting channels in the reef at Bikini so that a landing craft could move the 167 islanders. Most important, Weisgall notes, the islanders possibly also agreed to move because they were told it would be for only a short time.<sup>44</sup> Today, Bikini Atoll is still too radioactive for the islanders to return permanently to their ancestral home.

As the July 1 date for the test approached, *The Times* ran a



three-paragraph article about a second evacuation—the one hundred residents of Rongelap, located 85 miles east of Bikini. They were being moved temporarily 136 miles south to Lae. The article painted the evacuation as a benevolent move on the part of the United States “in case the prevailing northeast trade winds should become erratic at high levels and carry the poisonous bomb eastward over Rongelap.”<sup>45</sup> As detailed in Chapter 4, this evacuation of the Rongelap Islanders contrasts sharply with the failure of U.S. officials eight years later to remove these same people before detonation of the far deadlier Bravo shot that dusted them with radioactive fallout.

### “Strange People from Bikini”

A photograph depicting the U.S. flag rising over palm trees and a dozen Bikinians accompanies a Sunday magazine article in 1946 entitled “The Strange People of Bikini.” A two-column subhead indicates: “Primitive as they are,” they love one another and “the American visitors who took their home.” The article was written by a Navy lieutenant, who observed, “With the exception of the Eniwetok people, the people of Bikini are the most backward of the Marshall Islanders.” The ancestral homelands of both peoples were to serve as test sites for the most powerful U.S. explosions.

The cultural distance between the writer and the Islanders is explained in the next paragraph. “Lacking most of our inhibitions, the people express a love for one another which is not found among more advanced peoples. Men unabashedly walk hand-in-hand.” The editor might well have explained instead the Bikinians’ oral tradition that fosters close-knit groups. The article provided only meager glimpses of the lifestyle and customs of the people. The author was surprised at the “extraordinary regard” the people held for one another. “A shipment of dolls threw us into a quandary,” he wrote, “because we knew that Marshallese children have no need for dolls. The children take care of one another. There is no make-believe to it.”<sup>46</sup>

Besides its magazine, the Sunday newspaper, on the day before the first Bikini test, published a “Science in Review” backgrounder that justified the tests. Half of the front-page of its “News in the Week in Review” section provided a history of Operation Crossroads. Echoing its earlier reporting, *The Times* placed discus-

sion of issues directly related to the Bikinians in only one of the 24 paragraphs. A "Topics of the Times" column on the editorial page repeated a few paragraphs written earlier by Hanson Baldwin when he criticized those who had opposed Operation Crossroads; the column recycled his quotes such as the "crack-pot" assertions of "pseudo-scientists, many with an axe to grind." An Associated Press article, datelined from a ship at Bikini Atoll and given a two-column headline on Page 1, noted that once the bomb explodes, two destroyers "will begin a race with death to escape the radioactive cloud."<sup>47</sup>

Other *Times* articles of this period also focused on U.S. military and political superiority. For example, one Sunday magazine article carried the headline, "A Swing Around Our Pacific 'Empire'" and described 11 stops in "an American colonial empire," gained at the end of World War II after vicious battles with Japan. *Times*man Robert Trumbull devoted only one paragraph to the Marshall Islands, headquarters for the upcoming Operation Crossroads, and the most space—10 paragraphs—to Yap, home of "one of the more primitive peoples in the South Seas." In another example, a hard-news article describing the U.S.-occupied areas of the Pacific as "America's new island empire" inhabited by "brown natives," suggested U.S. technical superiority by quoting an admiral that Marshall Islanders "were well on their way to extinction through disease" before U.S. Naval doctors took charge.<sup>48</sup>

*The Times* also reported on scientists who had returned from studying Pacific Island atolls and then made the following observations about the purported indolence of the inhabitants: "The natives work only fifteen to twenty days a year; they wait until the coconuts fall off the trees, then collect them and sell them to the copra trading ships."<sup>49</sup> *The Times* gave that quote double-billing by including it in an essay-styled editorial that wondered why the scientists hadn't stayed on such an atoll where they would have to work for only 15 to 20 days a year.<sup>50</sup>

A sense of U.S. cultural superiority over the Bikinians was also conspicuous to anthropologist Leonard Mason, who had studied these islanders as they were moved from place to place while being exiled. In 1950 Mason noted that U.S. civilian administrators held the misplaced inclination

to regard the Marshallese as children who can be easily satisfied

with promises, and to bring charges of laziness and inefficiency when Marshallese do not respond as expected. This is related to another common tendency of Americans in their relations with people of another culture, and that is to interpret what they see and hear in terms of American culture and its values, with corresponding failure to comprehend what is really taking place.<sup>51</sup>

## Atomic Explosion No. 4: Standing at the Crossroads

The Able shot was the world's first in which citizens could watch and hear—through the news media—an atomic explosion. Most newspapers devoted about 20 percent of their front page to news from Bikini in the days following the test.<sup>52</sup> On July 1 *The Times* devoted 40 percent of its front-page to coverage of atomic bomb No. 4.<sup>53</sup>

*The Times* used a three-line headline across the top of the front page, the same size it had used for news of the Hiroshima A-bombing. The third line of the headline about the Able shot indicated that the blast force had been less than expected. The right-hand lead story was a United Press account from the scene that for a full column itemized the condition of most of the 95 vessels in the target zone. A three-column photograph attracted readers to Laurence's two-column-wide article directly beneath it.

Inside, *The Times* gave the Able test about 15 articles, one map and three photos, completely filling the news portion of four inside pages. The descriptions for the main articles filed from the Bikini area focused on the spectacular display and destructiveness of U.S. military power, even though the blast was headlined as less powerful than expected. Other articles described U.S. pilots, sailors, and the reactions of servicemen's families and persons abroad. On the editorial page, Anne O'Hare McCormick devoted a full column to the test and an editorial underscored Able's destructiveness.<sup>54</sup>

One of these articles was by Laurence. He pegged his article describing the world's fourth nuclear explosion around the code-name of Crossroads, following detonations at the Trinity site in New Mexico, Hiroshima and Nagasaki. From a ship at Bikini Atoll, Laurence recounted the words voiced over a radio broadcast just moments after the bomb was unleashed, “Listen, world, this is

Crossroads.” That statement was of utmost importance, Laurence wrote, in ending his article with this prophecy:

Today we stand at the crossroads. The destiny of the world will be decided probably in the next five years, probably in the next six or twelve months. The task depends on what the world decides to do or not to do. The atomic bomb—the future of the world hangs upon it!

The headline above his article touted his unique vantage point of having witnessed two other atomic explosions, as described in Chapter 3. He judged that the Able shot was considerably smaller than the one dropped at Nagasaki; the 1994 DOE list indicates the Able bomb and the Nagasaki bomb were of the same yield, each at 21 kilotons.

Laurence wrote in the first person. His use of expressions like “our Navy and future naval strategy” was not that of a detached observer or that of wanting the reader to be one either.<sup>55</sup> With use of the first person, no line exists between the subject under investigation and the media reporting it, a line that has to separate any fair reporting from the people or government being reported on. The dean of the 168 all-male press corps, Laurence criticized those scientists who questioned Operation Crossroads, and among correspondents, Weisgall explained, “dissenters either agreed with Laurence or dropped out of the inner circle of reporters.”<sup>56</sup> Laurence’s writing was descriptive and dramatic. He relied on a play-by-play of the countdown to the Zero moment when the bomb at Bikini Atoll was dropped while the whole world listened and watched. The metronome counting off the moments “came to sound like a voice of doom tolling the world’s last minutes,” he wrote. He used vivid—and subjective—description, sketching the soaring mushroom cloud as “an awesome, spine-chilling spectacle, a boiling, angry, super volcano struggling toward the sky, belching enormous masses of iridescent flames and smoke and giant rings of rainbow.”

To drive home the significance of the tests to his mainly urban readers, Laurence translated the destructiveness he was eyewitnessing. In the second paragraph, after detailing a nominal bomb’s explosive energy force of 20,000 tons, he explained:

This energy is great enough to obliterate a city. Were such a bomb to be exploded over the heart of London or New York,

they would to all intents and purposes cease to exist.

Buried much lower in the article—in the 38th of 43 paragraphs—Laurence noted with foresight what researchers found lacking in other news articles. He explained:

Probably the most terrifying aspect of an atom bomb is not the things you can see but those you cannot see, namely, the radioactivity. The bomb gives off two types of radiation....These remain in the clouds for some time.<sup>57</sup>

Laurence wrote in his article about the plutonium core of the bomb. Today, radioactivity and a long half life are so intertwined in our understanding that radiation unaccompanied by a long half life (such as that in x-rays or chemotherapy) is seen as exceptional. Today, one can write about radioactivity and assume that an understanding of half life lasting millennia would be implicitly understood by a majority of readers. Not so in 1946. To write about radioactivity then without noting the issue of longevity was to leave out a key aspect of the story.

Virtually every *Times* news story on the day of Test Able ignored the effects of the massive explosion on the homeland of the displaced Bikinians and on the significance of that damage for persons throughout the world who could become victims of nuclear weapons or their lingering radioactivity. Of 236 paragraphs devoted to news of the Bikini test, only two paragraphs mentioned the impact on Bikini's island or lagoon that had once sustained the islanders. Those two paragraphs came in a wire service report about a remote television scan that showed the palm trees “did not even appear to sway in the blast. They did not burn or fall, nor did any of their great, graceful branches droop or wither.” The nearby dock also appeared undamaged.<sup>58</sup>

Two days later, correspondents and official evaluators visited Bikini Island, three and a half miles from the target center, and found it virtually untouched. *The Times* report indicated that the palm trees were not singed and the five towers containing recording and photography instruments were undamaged.

Some news items gave contradictory information that was left unexplained. For example, one *Times* article reported Bikini's beaches were closed to swimming because of dangerous radioactivity.<sup>59</sup> But the next day a photograph showed two Navy nurses sunning them-

selves on the beach “with the palm trees still standing.” They had just finished a swim in Bikini Lagoon, which was declared “free of radioactivity forty eight hours after the atom test.”<sup>60</sup> Under the headline reading “Peaceful Scene on Bikini,” the photograph and its caption reflected the official U.S. misinformation of how long radioactivity would persist.

This misinformation continues to plague the Bikinians more than half a century later. Today, although palm trees are still there along with coconut, banana and papaya trees, the food cannot be safely eaten because the plants absorb radioactive cesium and transmit it through the foodchain. Cleanup efforts are underway. But according to 1978 radiation studies, it may be at least 100 years before Bikini Island can be safely resettled and residents can eat locally produced foods and marine life. And unreported in *The Times*, three of Bikini Atoll’s islands—Bokonijien, Aerokojlol and Nam—were vaporized during U.S. nuclear weapons tests.<sup>61</sup>

The photograph of the nurses is of importance for a second reason. It was published on the same day that seemingly contradictory comments by the senior safety officer for the Bikini tests were published by *The Times* on Page 1. In that article, *The Times* quoted Colonel Stafford Warren as saying that warships in the future could not be built with “steel thick enough to protect their crews from the terrific lethal radiation of a close atomic explosion.”<sup>62</sup> Both the comments of Warren and the photograph of the nurses were gathered and disseminated by The Associated Press, but no follow-up investigation either by that wire service or by *The Times* resolved the ambiguous, if not contradictory, messages contained in these two news items on a subject as vital to the public’s health and safety.

Thus, *The Times* descriptions of the immediate or long-term impact on Bikini were begging for journalists’ queries that were never asked, based on published materials in *The Times*. Moreover, as Weisgall noted, the effects of the test on U.S. ships and personnel were reported “piecemeal” and “so the public never really got a full picture.”<sup>63</sup>

On July 12, *The Times* carried a Page 1 article about the preliminary statements made by two separate official commissions that evaluated atomic bomb No. 4. *The Times* also carried the text of these two statements, which focused on what effects the blast from

the bomb and its initial radiation would inflict on crews of vessels. In the last paragraphs, the evaluators indicated that no damage occurred at Bikini Island. One statement indicated that "the radioactive residue dissipated in the manner expected."<sup>64</sup> These official statements gave so little attention to Bikini Island that it was omitted entirely from *The Times* Page 1 news story.<sup>65</sup> A *Times* editorial the same day used the two official reports as a springboard to dismiss the physicists who had opposed the Operation Crossroad tests but it ignored the effects of the tests on Bikini and the Pacific region.<sup>66</sup>

Just a day before the Baker test, *The Times* told of "King Juda's" making a visit to the admiral's flagship to watch what that atomic bomb would do to his ancestral home when for the first time one was to be exploded underwater. Many scientists had opposed the test.<sup>67</sup>

The five-paragraph *Times* article devoted one paragraph to describing the chief's reaction to the panorama before him:

Juda was open-mouthed with amazement as he stepped from the seaplane to a small boat and saw mammoth steel ships congesting Bikini Lagoon, which once knew only outrigger canoes.

The news story also condescendingly described the chief's appearance:

The dark-skinned, short and muscular ruler wore khaki trousers and shirt, without a tie, black Navy-issue shoes, one of which was tied with white string, and no socks. He carried a fountain pen and comb.<sup>68</sup>

On July 25, the day after the explosion, *The Times* devoted five articles to the fifth atomic bomb detonation. The briefest of these—three paragraphs—described the reaction of "King Juda of Bikini" witnessing "the atomic bombing of his one-time home lagoon" and then muttering "Big Boom!" The article went on to describe the chief as a "phlegmatic Marshall Islands native," who looked long through his binoculars on the uppermost deck of the admiral's flagship, shook his head and remarked through an interpreter about his being unable to see much: "Too far away."<sup>69</sup>

After the test, *The Times* carried a five-paragraph article saying that the Bikinian chief had visited his home island, where two thatched huts and the cemetery were the only remains of the origi-

nal village that the Bikinians had left behind. Baker's underwater blast had ripped the seaward side of the white fence around the cemetery and strewn flotsam over the mounds. Eleven dogs had survived on the island during the explosion but were hungry. The account reiterated the Bikinian leader's prediction that his people would return to Bikini.<sup>70</sup> The account was of enormous propaganda value. By reiterating the Bikinian leader's prediction that his people would return to Bikini, and having covered a visit to the island, *The Times* made it seem as though return was imminent when, in fact, it wasn't and has not occurred today.

### **Atomic Bomb No. 5: Peeking at "The Invisible Killer"**

*The Times* gave a token amount of coverage to the radioactivity expected at and produced by the world's fifth atomic bomb explosion, Test Baker, on July 24. This token coverage was often buried toward the end of long articles.<sup>71</sup>

The next day, *The Times* ran this three-column banner over the top of its Page 1 story:

ATOMIC BOMB SINKS BATTLESHIP AND CARRIER;  
FOUR SUBMARINES ARE LOST IN MOUNTING TOLL;  
SOVIET FLATLY REJECTS BARUCH CONTROL PLAN

Laurence's right-hand lead article was flanked by a three-column photograph showing the spectacular column of water and fireball rising more than a mile above Bikini Lagoon. Two wire-service articles were displayed below it. Continued to an inside page, Laurence's 30-paragraph article contained only one explicit sentence—in the 17th paragraph—about the menace transforming Bikini Atoll: "The lagoon is now a churning mass of radioactive water." Laurence's 14th paragraph about the mushroom cloud is nebulous: "It became a giant tree, a tree with many branches, bearing many invisible fruits—alpha particles, beta rays, neutrons—fruits deadly to man, invisible to the eye, the fruits of the tree of knowledge, which man must eat at his peril." He also mentioned the drone boats and airplanes sent out automatically through the use of robots to snatch samples of radioactivity of the air and water, but he pro-



vided no follow-up results.<sup>72</sup> More explicit, the next day, was a *Times* editorial that devoted its last paragraph to the threats posed to crews, to cities and to ocean-going vessels by the huge mass of radioactive rain created by an underwater explosion.<sup>73</sup>

Baldwin's day-after story and its headline focused on the surprisingly few "thin-hulled" ships that survived the Baker shot; not until the eighth paragraph of his 13-paragraph story does he report that lethal radioactivity covered "an area fully as great as expected." In his last paragraph he states emphatically that the two Bikini Atoll tests make clear "that one of the greatest hazards navies face from the atomic bomb is the invisible killer—radioactivity."<sup>74</sup> An accompanying AP article dramatized the dangers of radioactivity by reporting that radioactive ships and waters reduced Admiral Blandy's foray into the contaminated lagoon to only 30 minutes.<sup>75</sup> For *The Times* Sunday edition, articles by Baldwin and United Press told of the continued radioactivity that prevented all but the briefest of forays into the contaminated lagoon to survey Baker's damage to ships; helicopters had to fly above 1,000 feet to avoid radioactive residues.<sup>76</sup>

On the fifth day after the Baker shot, Baldwin's lead focused on "the invisible killer, radioactivity" that was preventing closer inspection of the battered fleet but contained few details about this danger.<sup>77</sup> On the sixth day, Baldwin wrote about his own findings of Operation Crossroads, but his sole mention of radioactivity is relegated to the 17th of a 20-paragraph article.<sup>78</sup> A *Times* editorial, headlined "Radioactivity at Bikini," called attention to Baldwin's articles foreseeing that navies of the future and their officers faced a new and invisible menace.<sup>79</sup> Within days, *The Times* devoted Page 1 space to Admiral Blandy's description that the bomb-induced radioactivity from the two tests at Bikini Atoll was "a form of poison warfare."<sup>80</sup>

Baldwin had remained in the vicinity of Bikini longer than many other journalists, but his *Times* articles only faintly describe the magnitude of the Baker shot. Weisgall, however, did describe its magnitude. "The Baker shot had revealed the true dimensions of fallout as a biological weapon of terror," he noted, "but the media and the military had focused more on the instant effects of the bomb on the target ships."

In secret memoranda at the time, however, U.S. military safety officers stated that radioactive fallout from the Able and Baker tests

in Operation Crossroads could have endangered U.S. servicemen. More thorough, on-the-scenes reporting then, by the two *Times*men, about radioactivity and more prominent placement about it in the newspapers might have changed the course of history because of *The Times* prestigious and monopoly-propaganda position, as discussed in the Introduction. But these government memoranda were kept secret for 37 years, until 1983. And *The Times* scant coverage about the hazards of radioactivity at Operation Crossroads and for years afterward kept the public and policymakers poorly informed, thus adding to the possible endangerment of servicemen, workers, islanders and other downwinders affected by nuclear weapons production and testing.<sup>81</sup>

*The Times* later published brief glimpses of the effects of the Baker test on Bikini's environment. In a dispatch from Pearl Harbor on August 2, for example, Baldwin reported an unspecified number of fish were killed but "there is little evidence so far that much change has occurred biologically in the life of the lagoon. There is no obvious evidence of any serious damage to the land animals or plants."<sup>82</sup> Only two of the 18 paragraphs described the effects of the test on Bikini's marine and terrestrial environment essential for the Marshallese self-sufficient lifestyle.

A week later, *The Times* reported the comments of Baker's official oceanographer, Commander Roger Revelle, that an atom bomb like the Baker test poisons bottom-feeding fish; this finding could prove disastrous for islanders' diets and commercial enterprises. He also reported that some of Bikini's reef fish caught since the Baker test were so radioactive that when placed on photographic plates, they took their own pictures.<sup>83</sup>

By September, Baldwin mentioned in passing at the end of a column-long article that "an interesting, unexpected and amazing by-product of Bikini" was the persistence, especially at the bottom of Bikini Lagoon, of radioactive particles. He noted the broken coral at the bottom of the lagoon that had been pulverized into silt and the "unexpected affinity of the algae and plankton in the water for radioactive particles."<sup>84</sup>

In contrast to the scant attention given to the Bikinians after the tests, *The Times* kept track of the ships departing Bikini Atoll.<sup>85</sup> A month after the Baker shot, for example, the admiral's flagship,

USS *Mount McKinley*, was still radioactive as it steamed toward Oakland.<sup>86</sup> Most of *The Times* framing resulted from use of wire-service articles that were of one to three paragraphs tucked into the inside pages of *The Times*, where they provided little context or visibility to aid readers in grasping the hazards or longevity of radioactivity.

Four years after Operation Crossroads, reports of other effects on the Pacific environment caused by U.S. atomic weapons tests appeared in *The Times*. Then, Laurence wrote an eight-part series of articles in which he translated scientific language into laypersons' terms, much as he had done on his assignment with the Manhattan Project, which was described in Chapter 3. Laurence's series served as “non-technical analyses” of the U.S. government's guidebook, *The Effects of Atomic Weapons*, which had been prepared for civil defense workers. *The Times* reprinted the series in a small booklet and sold it for ten cents. In the series, Laurence described briefly the underwater burst of the Baker test as producing by far the greatest degree of radioactive contamination. At the end of the article, he echoed the government's reported effects on Bikini:

- Most of the radioactive particles immediately after the explosion remained in or fell back into the lagoon with high dosage levels extending out to four and a half miles.
- Radioactivity could be expected to extend over a large area by the actions of marine life in which algae and plankton absorb unhealthy elements from the water and pass them on for accumulation in larger fish.
- If the fish die, the radioactive elements do not disappear but instead return to the water to take part again in the life cycle.
- Birds that deposit the minerals of the sea in guano might also distribute radioactive elements.
- The land areas of the atoll would be drenched in radioactive particles from fallout or from water propelled from the base surge of the atomic explosion.<sup>87</sup>

### “Arrogant Injustice to a Native People”

After the articles about “King Juda,” the 170 islanders were virtually forgotten by *The Times* once they had disembarked at

Rongerik. In contrast, during this post-war period, displaced persons from the devastated areas of Europe were often in the news in *The Times*.<sup>88</sup> In 1947, for example, *The Times Index* listed references to 30 articles about attention given by the U.N. to displaced persons in that one year. In addition, anthropologist Leonard Mason wrote, in 1954, that he was motivated to study the forced migration of the Bikinians because of the general similarity to the plight of Europe's displaced populations whose uprooting was caused directly or indirectly by World War II.<sup>89</sup>

But in mid-1947, a press exposé again thrust the Bikinians into the world's attention. The miserable living conditions of the forgotten Bikinians were exposed by a syndicated columnist, Harold Ickes. A former Cabinet officer, Ickes had been leaked a critical Navy evaluation, which he publicized. "The natives are actually and literally dying of starvation," he wrote, describing them as "forgotten." He accused the Navy of "arrogant injustice to a native people," and said their plight was "an international question."<sup>90</sup> Ickes' column didn't mention the new responsibilities the United States had acquired only months earlier when it became the administrator of the U.N.'s strategic trust territory.

The column by Ickes caused an uproar. Although syndicated elsewhere, his column was not published by *The Times*. But several months later, a government study made the same findings as Ickes had—but in milder words. *The Times* published an eight-paragraph wire service article about the official findings that the Bikinians were "defeated, frustrated, poverty-stricken and hungry." *The Times* article indicated that "the desperate inhabitants of Rongerik are reported to be cutting palms and eating palm hearts." The Trust Territory official recommended that the Bikinians be moved once again.<sup>91</sup>

Besides the news article, *The Times* also published, the same day, a sternly worded editorial, criticizing the Navy for taking "an unconscionably long time" to send food. It urged the Navy to make the Islanders more comfortable after being uprooted from their homelands. "The Bikini people deserve a lot more than they have been given by the richest country in the world," *The Times* wrote. "The debt can never be fully paid." Then, noting an important function of the press, *The Times* asserted, "Perhaps the current publicity

will make Navy officials more conscious of their responsibility.”<sup>92</sup> Had *The Times* been more enterprising in its reporting of these issues before the tests, it could have altered the course of this tragic tale.

Three months later, *The Times* reported Navy officials were going to re-establish the Bikinians on a self-sustaining basis and had hired anthropologists to aid them.<sup>93</sup> Two months later, *The Times* reported in one paragraph that the Bikinians were being moved from Rongerik to Kwajalein, where they would remain temporarily until another home could be found for them on Kili Island.<sup>94</sup> This momentary spotlight on the plight of islanders suffering from the U.S. atomic bomb tests would not occur again in *The Times* for seven years.

**ELDER LORE KESSIBUKI’S REMEMBRANCES OF HUNGER ON RONGERIK IN 1947 AND HIS DREAM-SCAPE OF OLD BIKINI**

Even through all of our hardships it was unfathomable that we still held high hopes that the Americans would help us. I vividly remember that one day many of our people were walking around vomiting, and having a terrible time with their stomachs, because they had forced themselves to eat a lot of the poisoned fish. These fish were the only available food for us to eat at the time. It was mid-afternoon and extremely hot when I myself felt nauseated and I slowly slumped to the ground beneath a coconut tree. All of a sudden, a burst of images rushed into my mind about Bikini. I recalled the memories of what wonderful lives we had lived when we were on our islands. It was at that moment that I began to compose a vision in my soul about my homeland—Bikini, Bikini, Bikini, Bikini—the dream was so beautiful: I remembered the endless, white beaches where I used to take long walks with the sands rising up between my toes; and I thought about the lush jungles that had provided me with countless adventures as a child; and I tasted the delicious fish that could be easily caught—even by small children—in the lagoon; and I imagined myself touching the tombstones in the graveyard of my elders; and I envisioned myself sailing across the lagoon in a canoe which was loaded down with fresh tuna; and I recalled how I used to talk with my family, peacefully and quietly, long into the night. These recollections caused me, when coupled with my weakened state, to become quickly, and embarrassingly, reduced to tears right there under the tree—in daytime! I was supposed to be a leader, yet, I was crumbling, crying.<sup>95</sup>

## The Bomb Exiles and Then Pursues Enewetak Islanders

No major media event was organized when 142 Enewetak Islanders were removed from their homeland in 1947 to permit testing of more powerful U.S. weapons. Enewetak had been selected as a test site because, *The Times* reported, it was isolated by miles of open sea, thus becoming “a forbidden fortress of the atom.” Bikini was no longer useful because it lacked sufficient land surface to hold the huge number of instruments essential for the upcoming experiments for military and peacetime purposes.<sup>96</sup>

Upon being removed in 1947, the Enewetakese had been informed by a senior official, Captain John P.W. Vest, that they would be able to return to Enewetak within three to five years. Instead for the next 33 years they were exiled on the smaller, less hospitable atoll of Ujelang, where they endured near-starvation conditions, as described in the Introduction.

On December 2, 1947, *The Times* devoted 12 paragraphs on Page 24 to the planned removal of the Enewetak inhabitants and then on December 25 another four paragraphs on Page 14 after the 142 inhabitants had been transferred.<sup>97</sup> The Islanders were permanently resettled on Ujelang Atoll 150 miles to the southwest in the Marshall Islands. The first *Times* article about the displacement of the Enewetak Islanders, disseminated by The Associated Press from Honolulu, emphasized U.S. concern for the Islanders. Lieutenant General John E. Hull, new joint task force commander responsible for the upcoming nuclear weapons tests at Enewetak, said that by April the building of new cisterns, houses and other facilities would be complete for the Islanders’ resettlement. He added, “The American people are very sympathetic to the welfare of these people and we are doing everything possible for their future comfort and happiness.” Even so, he said, because of the tests for more advanced nuclear weapons, Enewetak would be one of the most heavily guarded areas of the world, “and the chances are that its present inhabitants never will return.” Like the Bikinians, *The Times* article said, the Enewetak Islanders “will be special wards of the Government.”<sup>98</sup> The second article was also angled to highlight U.S. humanitarianism.<sup>99</sup> Following these two brief news dispatches, the Enewetakese disappeared from the pages of *The Times*.

In 1958 the Enewetakese on Ujelang Atoll were powdered by radioactive fallout from the 8,900-kiloton Oak shot, or one equivalent to 593 Hiroshima-size bombs. The radioactive dusting of the Enewetakese was not disclosed by the U.S. government at the time and was not published in *The Times*. But in a 1982 report, the Defense Nuclear Agency said Oak had created a cloud that reached 55,000 feet within two minutes, remained above Enewetak for several hours, then moved slowly to the southwest and the next morning was detected several hundred miles away from Ground Zero. Then, without mentioning the Enewetakese there, it states, the fallout pattern deposited "some contamination as far south as Ujelang," 150 miles away. As historian Stewart Firth observed, "Even in exile the Enewetakese were not free of the bomb."<sup>100</sup>

### Must These Islands Be "Lost Forever"?

Articles in *The Times* provide no evidence that its reporters effectively followed up to provide substantive news about the "nuclear nomads" in the wake of the brouhaha created by Ickes' expose. One Page 1 article did appear when Marshallese, in 1954, petitioned the United Nations to hear their grievances resulting from Bravo's H-Bomb fallout; this article is discussed in the next chapter. Otherwise, what appeared in *The Times* were brief articles or mentions buried within articles about the immediate impact of U.S. Pacific nuclear weapons tests. These close-to-invisible articles placed inconspicuously on inside pages did little to provide readers with the context and significance of the U.S. Pacific nuclear weapons tests and their effects on humans and the environment.

The small number of *Times* articles evidenced three themes: three articles about the people, usually portrayed optimistically;<sup>101</sup> three articles about U.S. payments to them for land claims or property damages;<sup>102</sup> and 15 articles about scheduled or completed research on the effects of nuclear tests related to the Pacific Islands. Articles about this research were often contradictory. For example, one year after the first two Pacific tests, *The Times* devoted several one-paragraph Sunday science notes to minimizing the effects of radioactivity at Bikini; one was based on a naval consultants' report that everything that grows at Bikini and swims in the lagoon is

radioactive in such small quantities that human beings could live there—possibly a year—without suffering ill effects.<sup>103</sup> But by 1948 *The Times* reported on the author of a book written by a radiological monitor at the Baker test, Dr. David Bradley, who said radioactive particles had poisoned targets at Bikini that would remain deadly for eternity.<sup>104</sup> Other scientists found that micro-plankton organisms act as radioactive carriers in the Bikini lagoons, keeping the waters radioactive.<sup>105</sup>

In January 1949, *The Times* carried a three-paragraph article about one scientific study indicating that the Operation Crossroads tests had left little effect on the marine life that survived the atomic experiments.<sup>106</sup> But in September it carried another study that found the food supply in the atoll still carried atomic-bomb effects, thus creating uncertainty when or even whether the Bikinians could return to their homeland.<sup>107</sup> By 1951, *The Times* reported that corn seeds irradiated in the Bikini and Enewetak tests had produced freakish progeny that were dwarfed, twisted or partly sterile.<sup>108</sup> In 1955, in an Association for Cancer Research meeting, specialists were told that the mice placed at undisclosed distances from the explosions during the Bikini tests had developed a type of tumor not before reported.<sup>109</sup> Also in 1955, AEC Commissioner Willard Libby said that nuclear weapons tests have made the oceans north of the equator ten times as radioactive as they were two years before, but the increase posed no danger.<sup>110</sup>

By 1956, the United States High Commissioner for the Pacific Trusteeship, Delmas Nucker, told the U.N. Trusteeship Council that Bikini and Enewetak might be uninhabitable for at least two generations; he was responding to the Soviet delegate's question whether these islands must be "lost forever."<sup>111</sup> Also in 1956, the U.S. government disclosed that "light" radioactive fallout had powdered Enewetak, resulting from the Redwing series.<sup>112</sup> Without too much difficulty *The Times* could have located useful authoritative sources for keeping better track of the condition of these people and their homelands. As suggested in *The Times* own news story noted above, one such kind of source was the anthropologists who conducted studies of the displaced Bikinians and became exceptionally well-informed.<sup>113</sup> Had they been tapped, these academic materials could have been updated and supplemented by *Times* reporters interviewing members of U.N. Trusteeship delegations that periodically visit-



ed the TTPI, heard grievances from those inhabitants affected by the U.S. Pacific nuclear weapons tests and issued official reports.<sup>114</sup>

Another valuable source available to reporters during this period, but left untapped by *The Times*, were materials written by Neal O. Hines, a one-time journalist. In one of his articles published in *The Scientific Monthly*, he wrote, "Bikini might be expected to remain radioactive much longer than anyone had anticipated."<sup>115</sup>

## Spot-News Reporting as the Sound of Silence

*Times* articles about Operation Sandstone, in 1948, were far different from the hoopla the U.S. military had managed for Operation Crossroads. The vast difference was summed up in this *Times* editorial:

The Bikini experiment was heralded with much publicity months before it was made, and the explosion of the two bombs then tested in the midst of ninety-two ships reverberated for a year in the press. This time there were no shiploads of invited guests, no advance publicity, no promise that the results would ever be revealed.<sup>116</sup>

*The Times* statement about no advance publicity held true for the atomic explosions in 1948 and for the next eight years, when 13 tests were conducted. Operation Sandstone symbolized the end of U.S. policy hopes for international control of atomic weaponry and the beginning of closely held scientific tests designed to develop a U.S. nuclear arsenal. This arsenal was seen as becoming more necessary as President Truman announced his new doctrine to contain communism. Truman approved Sandstone on June 27, 1947, only months after he had urged emergency aid to counter communist subversion in Greece and Turkey. Two weeks before the first Sandstone test on April 14, the Soviets initiated what became a blockade of Berlin by restricting Allied movements to that city encircled by communist-governed territory. As international tensions mounted, U.S. officials discussed canceling one or more of Sandstone's three tests<sup>117</sup> but ended up conducting them. As shown on Table 1 in Chapter 5, Operation Sandstone, testing more advanced weapons developments, produced a yield of 104 kilotons, which equates to nearly seven Hiroshima-size bombs.

In coverage of Operation Sandstone, two *Times* descriptions became evident.

The first aspect of *The Times* coverage derived from a policy shift within the government to shut off press access to the operation, as discussed above. A *Times* article noted that conducting the Enewetak tests “under the cloak of military secrecy”<sup>118</sup> would differ from the Bikini experiments that were witnessed by numerous journalists and foreign observers, including Russians.<sup>119</sup> *Times* news items presented no evidence that this shift in U.S. information policy was contested by the press; no specific reason was given for closing off news media access to the tests.<sup>120</sup> In fact, a *Times* editorial justified secrecy of the Enewetak tests, saying:

Deplorable as secrecy may be, if we are to give a badly needed crop of young physicists the scientific education that they ought to receive, it is essential under the terms of the Atomic Energy Act. It is also essential in the present temper of the world so divided that we have to speak of a “cold war.”<sup>121</sup>

In contrast, as discussed earlier, *The Times* had editorialized, in 1946, for more press access to Operation Crossroads for foreign journalists.

The second aspect resulted when U.S. officials made multiple announcements of developments showing scientific or military advances, thus promoting a positive, dramatic news agenda that generated two or more highly visible news articles. In the Enewetak case, the first *Times* front-page article was published on July 24, 1947, when the AEC notified Congress it planned to establish the Enewetak Proving Ground. The second *Times* article came on April 20, 1948 following the AEC announcement that “an atomic weapon” had been tested at Enewetak. The disclosure made Page 1 of *The Times*, with a 16-paragraph jump to Page 2, as is shown in Appendix Table 1. The date of the experiment was not released “for security reasons.”<sup>122</sup> A month later, on May 18, the AEC announced that three Sandstone tests had been successfully completed with the second and third tests being merged into one *Times* story. Giving that article front-page prominence, as shown in Appendix Table 1, *The Times* described the results of the tests as having “transcended all other developments in nuclear energy since the dawn of the atomic age, five and a half years ago.”<sup>123</sup> Rippling out from these offi-

cial announcements were *Times*-generated articles such as the Sunday "Science in Review" column about "a swift succession of significant events" in the field of atomic energy. In it, Laurence repeated government information describing construction of the Enewetak test site, which would be used in turn to "facilitate advances in peaceful as well as in military application of atomic energy."<sup>124</sup> None of the articles mentioned the inhabitants of Enewetak or their forced migration.

## **Inching Toward the H-Bomb; Hiding 726 Hiroshima Explosions**

Operation Greenhouse had already been announced when the Korean War erupted. The announcement had been made on November 29, 1949, that more atomic bomb tests were being planned for the Enewetak Proving Ground, but "full security regulations" prevented disclosure of the date.<sup>125</sup>

Operation Greenhouse, conducted in 1951, consisted of "a series of shots," the AEC chairman said at the time<sup>126</sup> but the exact number was not then disclosed. Only two official executive-branch announcements were made about the tests.<sup>127</sup> Four test shots are now officially acknowledged but only two *Times* articles were published about them, as is shown in Appendix Table 1. One of these was Page 1 news because of *The Times* interpretation that the tests had shown U.S. progress in developing a hydrogen bomb. Other *Times* articles gave hints without specific details that new tests would soon begin.<sup>128</sup> Some articles relayed statements by Congressional leaders about the results of the tests they had just observed or been told about.<sup>129</sup> Others were news analyses by Laurence and Baldwin plus a Sunday Science Note.<sup>130</sup> The *Times* also gave front-page prominence to an AEC-released photograph showing the early phase of an explosion at Enewetak that resembled a fireball encircled by rings.<sup>131</sup>

None of *The Times* news stories captured the drama or destructiveness of the tests as vividly as did the articles written by a Congressman-turned-correspondent, Representative F. Edward Hebert, Democrat of Louisiana, for the New Orleans *Statesman*. The articles were made available to The Associated Press and published in *The Times*. An ex-newsman who was an observer of some of

Operation Greenhouse for the House Armed Services Committee, Hebert wrote, "I had the feeling I was standing at the gates of hell looking into eternity."

The bomb he saw detonated was "several times the power of the bomb dropped on Hiroshima," he wrote, but he did not specify which explosion he had witnessed. The yield of the four Greenhouse tests totaled 399 kilotons, as shown in Table 1 in Chapter 5. This total equates to 26 Hiroshima-size bombs. After flying over the island, Hebert wrote:

There was nothing on the island left standing except the charred remains of a few palm tree stumps.

Despite this unparalleled destructiveness, Hebert reiterated the comments of an unidentified fellow Congressman who had said that the fatal effect of radioactivity on humans had been emphasized too much. Hebert elaborated:

Radioactivity definitely is not a deterrent to rescue workers if properly understood. There is no such thing as a 'death ray' bomb which would destroy an entire city without the implementation of other accepted military devices both in manpower and equipment.

It is erroneous to believe that the lethal effects of an atom bomb will remain effective in a proscribed area over an indeterminate period of time.<sup>132</sup>

The combined yield of Operation Sandstone and Operation Greenhouse totaled 503 kilotons, as shown in Table 1 in Chapter 5. This yield equates to 33.5 Hiroshima-size bombs and resulted from seven test shots, of which only four were reported in *The Times*.

Operations Sandstone, in 1948, and Greenhouse, in 1951, successfully set the stage for the H-bomb era, leading to the detonation of the first U.S. hydrogen device, the Mike shot of October 31, 1952 at Enewetak. That single shot produced an explosive force equivalent to 693 Hiroshima-size bombs that escalated significantly from the 33.5 Hiroshima-size bombs detonated in Sandstone and Greenhouse. The Mike shot was a huge escalation in yield, twenty times more powerful than the combined yield of the seven Sandstone and Greenhouse shots.

This proto-H-bomb vaporized the test island of Elugelab. That island was mentioned only once in *The Times* when a film of the

Mike explosion was later previewed by newsmen and shown on television and in theaters. “The film shows a stretch of dark blue water where once the test island called Elugelab stood,” *The Times* said in the second to last paragraph of a 16-paragraph story. “In its place was a crater broad enough to accommodate fourteen Pentagons.” Then, in the last paragraph, *The Times* noted, the reporters previewing the film “rated it a B picture.”

Rather than a B movie, the destructiveness of the Mike shot defies human comprehension, says John Harrison, a senior research scientist who lived at Enewetak beginning in 1978. He often glided his motorboat over the shallower turquoise waters near the close-in reefs of the atoll and “then all of a sudden into the deeper, more cloudy waters that delineated or that filled this enormous, enormous round circle that was the Mike crater.” Each time he made the trip, he explains, “it changed my life,” as he tried to comprehend the cataclysm that had transformed an island into a massive hole in the reef. Once in the middle of the crater, he sensed, he had experienced “the ultimate epiphany of what a nuclear holocaust is all about.”<sup>133</sup>

After the Mike shot, another, far more frightful nuclear holocaust, was in the offing.

**PREPARATIONS FOR MEASURING MIKE’S THERMONUCLEAR FALLOUT MADE BY MERRIL EISENBUD, HEALTH AND ENVIRONMENTAL SCIENTIST**

Our attention turned to the contemplated explosion of the first large thermonuclear device scheduled to take place on the atoll of Eniwetok in the fall of 1952. There was much thoughtful discussion about the possible consequences of such an explosion: Some scientists believed that the force of megaton explosions would drive the radioactive dust into outer space! Our staff was less optimistic, and predicted that dangerous levels of fallout could occur for hundreds of miles downwind of the explosion. During those months I spent a considerable amount of time reading about the dust produced by volcanic eruptions, which were more violent by far than thermonuclear explosions. I was impressed by the fact that the dust was injected high into the stratosphere where it remained for years and affected the coloration of sunsets around the world. In addition to high levels of fallout that would occur within hours after an explosion in which the fireball touched the ground, it was highly likely that fallout of small particles would “dribble” from the stratosphere for many years.<sup>134</sup>

## CHAPTER 9

# Americans “Are Smart At Doing Stupid Things”

## *H-Bomb’s Biggest Fallout in U.S. History (But Not in The Times)*

Corporal Don Whitaker could hardly have imagined the worldwide surprise his letter home would create in March 1954. That surprise was one in a chain reaction of three that stunned the world—and members of the Eisenhower Administration. The triple play of surprises shattered the U.S. government’s usual policy of secrecy and permitted the world to witness, first-hand, the invisible, yet insidious, nature of radioactivity fallout caused by a weapon of mass destruction. The Marine corporal’s letter to his hometown newspaper in Cincinnati described Rongelap and Utrik Islanders who had been powdered with snow-like radioactive fallout, but the U.S. government’s tight control of information minimized real news about them. If *The Times* had reported on these islanders with the independence and impartiality that it touted, instead of toeing the U.S. government line, they would have served as early alerts to others worldwide about the menace of radioactive fallout.

The first in the chain reaction of surprises to Washington and the world was the magnitude of the Bravo hydrogen bomb exploded on March 1, 1954, from Bikini Atoll. Its yield—15 megatons—is the greatest in U.S. nuclear history, the equivalent of 1,000 Hiroshima-size bombs and more than twice what had been expected because scientists had miscalculated the fusion reaction in the new lithium-deuteride that fueled the bomb.<sup>1</sup> Historian-lawyer Jonathan M. Weisgall observes that the Bravo shot “represented as revolutionary an advance in explosive power over the atomic bomb as the atomic bomb had over the conventional weapons of World War II.” Bravo clearly revealed to the world the deadly dimensions of radioactive

fallout "as a biological weapon of terror" that the news media and the military had minimized after the Baker shot eight years earlier. He noted, "The Bravo shot, though, finally brought home to the American public and the world the realization that the killing power of radioactive fallout from a thermonuclear bomb greatly exceeds the fiery blast and heat of the direct explosion that causes it."<sup>2</sup>

The test itself had been expected. On February 7, *The Times* had published a one-paragraph wire service story that a new series of atomic tests would begin within weeks and would include the first trial run of a hydrogen bomb. Then the day after the March 1 test, *The Times*, on Page 1, told of the official announcement of the first in a new series of nuclear tests which had begun the previous day. The article made no mention of a hydrogen bomb.<sup>3</sup> It was the magnitude of the Bravo shot that was surprising. It vaporized three of Bikini Atoll's 23 islands. Weisgall writes that the Bravo device created a fireball nearly four miles wide, resulting in "serious-to-lethal radioactivity falling over an area almost equal in size to the entire state of Massachusetts."<sup>4</sup> Snow-like radioactive particles were also falling 100 to 125 miles away on property and persons on Rongelap and Utrik atolls, who had not been evacuated or alerted about precautions to take.

Physicist Ralph Lapp, who had visited Japan, has reconstructed how and why the Bravo shot became so deadly once the bomb exploded and unleashed its yield of the equivalent of 15 million tons of TNT. Part of Lapp's reconstruction follows:

A quickly expanding ball of fire formed over the edge of the atoll and roared out until it formed a helmet-shaped mass of incandescence three and a quarter miles from edge to edge. Millions of tons of coral were shattered by the immensely powerful and incredibly hot explosion. This was sucked into the raging fire ball, leaving behind a yawning cavity as though some giant had broken off a mile-wide lip of the atoll's projection from the sea. This coral, shattered into tiny particles, churned itself deep into the heart of the white-hot furnace and mixed intimately with a half ton of uranium fragments produced by the explosion. Each little cluster of split atoms, too small to be seen with a microscope, became attached to a bit of coral ash. The latter, about a millionfold greater in weight, thus became highly radioactive due to this atomic marriage. The fire ball then whooshed upward with express-train speed, forming the charac-

teristic mushroom cloud. An awesome, almost pure-white cloud spread out over twenty and then more miles, hovering over a large section of Bikini Atoll.<sup>5</sup>

The second surprise came with Corporal Whitaker's personal letter to his hometown newspaper in Cincinnati. The young Marine had witnessed the Bravo shot from Kwajalein Atoll, had seen the distraught islanders arrive at the Navy clinic there and shared his observations that made news about the evacuation that U.S. officials had hoped and tried to keep secret. The Cincinnati newspaper published his account on March 10, which prompted the U.S. government, the next day, to issue a news release. In it, the government masked the magnitude of the Bravo shot and of its radioactive effects with a bland announcement that was the basis for news stories. Weisgall described the AEC's press release as "disingenuous at best." He indicated that Bravo was hardly the "routine atomic test" that the AEC said, nor did the AEC's phrase "some radioactivity" come close to describing the islanders' dosage, which was the equivalent of the amount received by Hiroshima citizens less than two miles from Ground Zero. Moreover, virtually all of the islanders that the AEC had described as doing so well "already displayed the classic symptoms of radiation poisoning—hair loss, skin lesion, and lowered white blood cell counts." What the AEC called "a routine test" in this release was acknowledged 28 years later by the Defense Nuclear Agency to be "the worst single incident of fallout exposures in all the U.S. atmospheric testing program."<sup>6</sup>

On March 12, *The Times* carried a wire service story from Washington about the evacuation, displaying it on Page 1 and below the fold in the lower left-hand corner, which is one of the least conspicuous spots on the front page. The article told of the dusting of 236 Marshallese and 28 U.S. servicemen with radioactive debris. The AEC did not give the date or the place where the test had been conducted, the names of the atolls whose inhabitants had been evacuated or exactly when the evacuation took place. The article gave no indication that any journalist had asked for this information. The article added without attribution, "Exposure to mild radiation is not necessarily dangerous." This non-attributed representation lent unfounded credence to the AEC's description that the islanders were "reported well."<sup>7</sup> Without Corporal Whitaker's per-



sonal letter, the tragic encounter of the Rongelap and Utrik Islanders with radioactive fallout might have been hidden from the outside world.

William Allen, who had accompanied U.S. representatives to the Marshall Islands recalled: "On one of these trips I met a Marshallese male named Hiroshi who had been severely affected by fallout. He had first degree burns covering 90% of his body and had suffered complete hair loss. The extent to which his body was burned was such that the bones in his feet were exposed and visible to the naked eye. Tragically enough, Hiroshi died less than a year after our conversation."<sup>8</sup>

Just days after they had assured the public how well off the Rongelapese and other islanders were, the U.S. officials learned through news accounts about the third surprise in the chain reaction of stunning events. This surprise occurred in the form of a Japanese tuna trawler, the *No. 5 Fukuryu Maru* (the "*Lucky Dragon*"), which was 112 miles east of Bikini at the time of the explosion witnessed by its crew. This distance was well outside the danger zone that had been designated by U.S. officials.

### Living With *Shi No Hai*—"Ashes of Death"

Besides the Rongelap, Utrik and other Islanders, Bravo's awesome explosion had also powdered the boat's 23 crew members with what is known in Japan as *shi no hai* or "ashes of death." When the boat reached its home port of Yaizu about 120 miles south of Tokyo, on March 14, two weeks after the blast, the crew was suffering from a radiation sickness<sup>9</sup> that stunned U.S. officials and the rest of the world. The crewmen's sickness and the subsequent panic over radioactive tuna in the U.S. and Japanese fish markets led to a tremendous international furor, as described previously. The word *fallout* was introduced to the world's lexicon and focused attention for the first time on the hazards of radiation from H-bomb detonations.<sup>10</sup>

The significance of the *Lucky Dragon* revelation was described by physicist Lapp in 1957:

The strange white dust they carried with them to Japan led to the revelation, still officially unconfirmed in the United States, of a revolutionary new weapon of war—a bomb of

incredible potency. But for the accident of the *Lucky Dragon* the world might still be in the dark about the nature of this revolutionary new weapon and its meaning for all men.<sup>11</sup>

For the first time, the world came to visualize a new kind of invisible menace, a danger that could not be smelled, seen, felt or heard. With the U.S. government's blackout on news about the irradiated islanders and 28 U.S. servicemen, the reality of that menace would not have been made public without the crew of the *Lucky Dragon*. One scholar later reported that the *Lucky Dragon* crewmen made the Bravo shot "an international scandal."<sup>12</sup>

Before March ended, the U.S. policy of secrecy surrounding the effects of nuclear testing produced an anguished letter to the editor from Lewis Mumford, a planning expert, social critic and author, to which *The Times* devoted a full column. Under what mandate, Mumford asked, do U.S. government leaders "continue to hold as secret the results we may expect from the use of weapons of extermination—not merely on our own cities and people but on all living organisms; not merely on our present lives but on the lives of countless generations to come?" He advocated courage, intelligence and open discussion so as to "turn back from the suicidal path we have blindly followed since 1942." But in an editorial the same day, *The Times* ignored Mumford's plea for an open discussion, rejected a *Manchester Guardian* call for an end of hydrogen-bomb experiments and supported the Eisenhower Administration's continued testing amidst the faint hope that an agreement could be reached with the Soviets to control atomic weaponry.<sup>13</sup>

The Japanese government and people reacted by dubbing the *Lucky Dragon* furor "a second Hiroshima" and it nearly led to severing diplomatic relations.<sup>14</sup> *The Times* coverage of the incident and subsequent events was misleading and subdued. On March 16, *The Times* reported the first news of the *Lucky Dragon*. The next day, it carried three paragraphs on Page 1 about the Japanese government's seizing radioactive fish from the fishing boat.<sup>15</sup> On March 19, a *Times* article described what it called sensational Japanese press accounts fanning near-panic. In turn, a U.S. government doctor dispatched to Japan blamed the Japanese press for exaggerating the condition of the fishermen, who, he predicted, would recover completely in about a month. Instead, six months later on September 23, 1954,

the *Lucky Dragon's* 40-year-old radio operator, Aikichi Kuboyama, died. Japanese sources said he died from radiation sickness or the effects of the radioactive fallout. The U.S. government disputed this assessment, attributing, instead, his death to jaundice, possibly induced by a blood transfusion, according to *The Times* report.<sup>16</sup> *The Times* report bolstered the official U.S. viewpoint but also described Kuboyama as "probably the world's first hydrogen-bomb casualty."<sup>17</sup>

Physicist Lapp, who had written about his visit to Japan, estimated the life spans of the remaining crew members would be five years less than those of their non-irradiated peers and he noted that they were temporarily sterile; these striking details were omitted from *Times* coverage at the time.<sup>18</sup> The article on Kuboyama's death, running for more than a column on Page 10, attributed much of the anti-U.S. resentment to the work of Japanese leftists, a view the U.S. government had initiated and *The Times* echoed in the wire service articles it selected and published.<sup>19</sup>

By April 4, *The Times* aided the U.S. government at a critical time by giving little prominence to evidence of even more radioactivity from Bikini. The newspaper devoted only a two-paragraph article to a Tokyo University announcement that two more tuna fishing boats had returned radioactive from the Bikini fishing area and a three-paragraph article about the quarantining of a fourth Japanese fishing tuna boat because of its radioactivity.<sup>20</sup>

The fishermen's worsening sickness and subsequent panic over radioactive tuna in Japanese fish markets led to a tremendous international uproar. British historian Richard Storry asserted the incident "caused resentment in Japan at least equal to that occasioned by the atomic attacks on Hiroshima and Nagasaki."<sup>21</sup>

Meanwhile, Bravo's radioactive effects had spread far beyond the Pacific. Three weeks after Bravo, *The Times* reported in a four-paragraph story that the explosion had produced a small but harmless increase in radioactivity over the United States. Six months after the Bravo explosion, it reported that the sea water and plankton around Bikini were still too radioactive to permit fishing.<sup>22</sup> And, as discussed in Chapter 5, President Eisenhower had already alerted his senior officials a year earlier to keep the American public confused about fission and fusion, and to leave out of press releases and speeches the word "thermonuclear," which meant the H-bomb.<sup>23</sup>

## Ignoring “The Crime of Bravo”

The Bravo shot was the first U.S. hydrogen device that could be delivered by airplane. It was designed to catch up with the Soviets who, in August 1953, had exploded their first hydrogen bomb deliverable by aircraft.

The testing for Bravo was so dangerous that it could not be conducted in the continental United States.<sup>24</sup> Nor could it be detonated at Enewetak Atoll because it could wipe out the extensive U.S. equipment and installations there.<sup>25</sup> So it was tested at Bikini Atoll. Even before the Bravo shot, experts knew that the radioactive dust of atmospheric nuclear weapons explosions was invisibly powdering the continental United States and touching others worldwide.<sup>26</sup>

The inhabitants of Rongelap and Utrik atolls had not been evacuated until several days after the fallout descended, a delay that remains controversial to this day.<sup>27</sup> The U.S. government’s failure to move the Rongelap and Utrik Islanders in advance of the Bravo shot is in itself surprising because Rongelapese had been moved before the Operation Crossroads test in 1946, as was detailed in Chapter 4. The irony was painful. “For an atomic bomb the size of the ones dropped on Hiroshima and Nagasaki, the Navy in 1946 had evacuated Marshallese for hundreds of miles to the east, west and south of Bikini,” the Senate Committee on Governmental Affairs was told on March 12, 1996. “For a hydrogen bomb in 1954 that was 1,000 times more powerful than those bombs, no one was evacuated from those atolls.”<sup>28</sup> The official reason for not evacuating the exposed islanders given at the time by a senior health official in the AEC, Gordon Dunning, was “the high cost and the logistic problems presented in supporting such an operation.” And, the commanding general of the Bravo operation agreed, also citing the military’s tight budget and shortage of ships and aircraft.<sup>29</sup>

Six hours before the test, U.S. officials had known that the winds had shifted, putting the Rongelap and Utrik Islanders in the fallout pattern, but they proceeded with the detonation anyway. Weisgall told a House subcommittee in 1984, “[T]he crime of Bravo, and I do not use that term lightly, is that the U.S. Government knew in advance of the shot that the winds were headed in the wrong direction. The explanation about the unpredicted wind shift is a lie.”<sup>30</sup> That knowledge of the wind shift—plus the time lag of sever-

al days before the U.S. ships evacuated the islanders—led an Australian documentary, in 1986, and others to suggest that U.S. officials had deliberately used the Marshallese as human guinea pigs.<sup>31</sup> Buttrressing that guinea-pig assertion was a secret U.S. document distributed before the Bravo shot, on November 10, 1953, and declassified years later. That document seemed to substantiate that using the islanders as guinea pigs was premeditated because, as described below, it listed Project 4.1 among 48 scientific tests to be conducted during and after the Bravo shot.<sup>32</sup>

**OBSERVATIONS BY U.S. HEALTH SCIENTIST PRESENT  
AT BRAVO, MERRIL EISENBUD, MADE 42 YEARS  
AFTER THE HISTORIC SHOT**

One of the remaining mysteries of the BRAVO affair was that no official inquiry was conducted. It was not until 40 years later that I was requested to testify before a congressional committee at the request of representatives of the Republic of the Marshall Islands. When I reported that to my knowledge there had been no formal inquiry of the circumstances of the BRAVO fallout, the Committee Chairman, Representative George Miller stated "If the Navy runs a tugboat aground, we have a board of inquiry!" (Committee on Natural Resources, 1994.) That is in fact a poignant statement. Forty-two years later, without the benefit of a timely inquiry, when so many of the participants have passed from the scene, and with memories becoming increasingly fallible, a detailed explanation of what happened on the morning of March 1 1954 is likely to remain a gap in history.<sup>33</sup>

**"Like the Sun Rising in the West"**

Bravo was detonated at 6:00 a.m. Within four hours, the 28 U.S. weathermen on Rongerik saw a mist from the blast and seven hours later the needle of their radiation-measuring instrument went off scale. They were evacuated the next day. The clouds with snow-like particles moved over Alinginae, Rongelap, Utrik and Ailuk Atolls, according to E. P. Cronkite, one of the U.S. medical personnel dispatched to Kwajalein within days of the islanders' evacuation and before Corporal Whitaker's letter had made it public. Cronkite and two others in the team wrote 43 years later that the clouds deposited radioactive fallout on the people below and also irradiated them with doses of "cloud shine," radiation produced directly by

the blast itself. Rongelapese are said to have reported the flash as being “like the sun rising in the west.” On March 3, 77 islanders from Rongelap and campers on Ailinginae atolls were evacuated by plane and the next day, 159 people on Utrik Atoll were moved by ship. As of 2004, 118 of these 236 Bravo-dusted victims were alive and participating in a special Department of Energy medical program organized for them.

But the 400 people on nearby Ailuk Atoll with about the same or lesser dose as Utrik were not evacuated.<sup>34</sup> Today, many of them complain of serious medical conditions they attribute to the nuclear testing.<sup>35</sup>

For the islanders, the Bravo explosion was a painful and harrowing experience. As Rongelap resident Dorothy Amos recalled, “My hair fell out. It was really funny. I could pull my hair out easily from the burns. Baldness. We were cooked like they set our heads on fire.”<sup>36</sup>

Another Rongelap woman, who was unidentified, observed: “Don’t Americans know that every life is precious? They are educated people. Do they really believe that one person’s life is unimportant? What goes on in the minds of these people? They think they are smart but really they are crazy. They are smart at doing stupid things.”<sup>37</sup>

After Bravo, Isao Eknilang of Rongelap recalled: “We were very isolated in Kwajalein. Our relatives in Ebeye were afraid of their own family members, they were afraid to visit us for fear they would get radiation from us. Even the Rongelapese who were not on Rongelap during Bravo became embarrassed to be Rongelapese. They wouldn’t want to admit they were Rongelapese. They were embarrassed because we were like monkeys. Our arrival on Kwajalein caused family divisions because family did not want to help us for fear of being exposed themselves.”<sup>38</sup>

The islanders’ descriptions of immediate post-Bravo happenings were echoed 43 years later by Cronkite and his co-authors. Suggesting “significant radiation exposure,” the medical authors noted, about two-thirds of the Rongelapese were nauseated for two days; about one-tenth were vomiting and had diarrhea. Some islanders had itching, burning skin that turned into black pigmented areas and lesions, some of which became ulcerated and infected.

Hair fell out. Blood counts, which measure suppression of marrow, fell. Internally, radioactive strontium and iodine were at "maximum permissible levels;" plutonium with its 24,000 year half life was later found to be present but within federal guidelines. Five women who were evacuated were pregnant; four babies were born normal but the fifth was born dead, unknown whether radiation was the cause. One of the children who had been exposed in the womb later developed thyroid tumors, "suggesting that radioiodine from the mother may have been partly responsible for the thyroid tumors."<sup>39</sup>

Accounts by the islanders and medical officers differed markedly from U.S government explanations and *Times* stories. On March 18, *The Times* reported at the end of a wire service story about the Bravo shot that, according to the AEC, the American servicemen and Pacific Islanders had suffered no burns and were in good health.<sup>40</sup>

A month after the Bravo shot, AEC chair Lewis Strauss told reporters that the allegations that the evacuation of the Marshallese had been deliberately delayed were "utterly false, irresponsible and gravely unjust to the men engaged in this patriotic service." He also said that he had just visited the evacuees at the Kwajalein complex and they "appeared to me to be well and happy."<sup>41</sup> Years later, in 1992, a U.S. doctor who had then examined the exposed islanders acknowledged that this U.S. announcement was "misleading and inaccurate since, at that time, some effects were being observed."<sup>42</sup> And as detailed in Chapter 10, delayed radiation effects on Pacific Islanders, especially cancers, occurred much later.

On the same day that Strauss talked, a *Times* editorial said his presentation about what happened during the Bravo test "should go far toward reassuring our citizens and our friends abroad" because it showed U.S. scientists had miscalculated and it explained the freakish winds. Then *The Times* echoed the government's line, without making any apparent independent assessment, that because of the freakish winds at the Bravo shot, "Americans and natives who were fairly near the explosion escaped unharmed."<sup>43</sup>

Just how misleading were these early reassuring official statements and *Times* editorial was disclosed a year or so later by Cronkite and some medical personnel who had examined the Bravo-dusted Marshallese immediately after their arrival at the Kwajalein military

clinic. The medical officers' report on the immediate, direct effects of radioactive fallout was detailed in text and photographs published in the *Journal of the American Medical Association (JAMA)* of October 1955.<sup>44</sup> At 28 days after exposure, just when Chairman Strauss said the islanders were doing well, half a dozen gripping photographs documented a 7-year-old girl whose hair had tufted out, a 13-year-old boy with a whitening out of the skin and lesions on the neck and a close-up of the back of a head showing a peeling off of the skin, a loss of hair and a persistent sore on the left ear. At 45 days after exposure, another 13-year-old was shown with even more extensive lesions on his body. Two sets of before-and-after photos were described as showing that after six months, the girl's hair has grown back and foot lesions are mostly healed.

In one paragraph, the article indicated that "the possibility that cancer might develop at the site of some of these lesions must be considered." Reasons cited were the long-life expectancy of the many children in the group, the constant exposure to tropical sunlight and possible exposure to more radioactivity.<sup>45</sup> However, this article was silent on conditions of the women who were pregnant at the time of their Bravo-dusting, which, as noted above, Cronkite disclosed 43 years later. And the article was silent on the measurable quantities of radioactivity in their bodies that a *Times* article mentioned in 1958.<sup>46</sup>

This 1955 *JAMA* article had, three months earlier, been read as a report by Cronkite and five other medical personnel at the American Medical Association meeting in Atlantic City. In reporting on that meeting, *The Times*, in June 1955, ran a 15-paragraph article under the headline, "Fall-Out Effects Gone in 6 Months." The lead said the Bravo-dusted islanders had "recovered in six months from their major ailment—skin damage," based on Cronkite's report, but the remaining paragraphs provide no evidence of recovery. Instead, they detail the lesions, hair removal and whitening of skin. The body of the article indicated radiation had produced blood changes but was silent on possible long-term effects of these. And it omitted the mention of cancer made in one paragraph of the original report. Moreover, the photographs could not show and the medical report did not mention the radioactivity that remained in the islanders' bodies, as noted above.



Signaling the early-warning importance of the islanders to alert the rest of the world, *The Times* reporter had paraphrased the Navy officers to describe the sublethal doses from the Bravo "accident" as "the only major experience mankind has had with fallout from a nuclear device, presumably an H-bomb."<sup>47</sup> The Bravo victims had become to the H-bomb age what the 1920s "radium girls" were to the industrial age.

Two years later, in July 1957, *The Times* provided an update on the islanders in an eight-paragraph article under the headline, "FALL-OUT VICTIMS IN SOUND HEALTH." It was based on another article in the *Journal of the American Medical Association*, which had provided a generally-good-health tone to its own article. *The Times* account noted that about one-fifth of the exposed islanders were still suffering from skin lesions but it omitted mention of photographs showing just that—the lesions on the foot of a 13-year-old boy that remained two years after Bravo's exposure. *The Times* story also ignored AEC-sponsored data in the *JAMA* article about the stunted growth of two young boys subjected to Bravo's fallout and the similarity of this finding with information about Japanese boys who had survived the A-bombings of Hiroshima and Nagasaki.<sup>48</sup> Stunted growth and cancers are among the latent effects of radioactivity that afflict the exposed islanders today.

## **Bravo-tainted Thyroids of 1954: "Like Columbus When No One Believed the World Was Round"**

Writing 43 years after Bravo, Cronkite and others wrote they "did not visualize the developments of thyroid problems," because "in 1954 there was no clear cut evidence of susceptibility of the thyroid to radiation effects other than ablation by high doses."<sup>49</sup>

The team's lack of visualization is surprising. Halfway around the world in Tennessee, in the spring of 1954, just as Bravo was being exploded, scientist Van Middlesworth was working in his laboratory in Memphis when a nearby Geiger counter sounded. It had detected radioactivity from the thyroid gland in the head of a slaughtered steer that had been grazing on grass before slaughter. He suspected the radioactivity resulted from the Bravo and other Operation Castle tests, a hunch that was later confirmed upon examination of thou-

sands of other glands of cattle obtained from packing plants. "We knew in one week the entire country was contaminated," Middlesworth explains to investigative reporter Eileen Welsome. "Nobody believed you could contaminate the world from one spot. It was like Columbus when no one believed the world was round."<sup>50</sup>

It would be nine years after Bravo that the islanders' medical team would publicly acknowledge thyroid problems among the Rongelap and Utrik victims, years in which the U.S. government was under attack by the Soviets and neutralist nations for its weapons testing in a U.N. trusteeship. Not until after 1963, when the U.S. and Soviet governments had stopped atmospheric nuclear testing, did the U.S. doctors locate on a 12-year-old girl the first thyroid nodules; others followed until the Marshallese had one of the world's highest rates for thyroid abnormalities. One-third of the Rongelapese developed abnormalities in the thyroid,<sup>51</sup> which controls physical and mental growth, and thus resulted in some cases of mental retardation, cretinism, lack of vigor and stunted development.

Despite U.S. assurances and *The Times* editorial that the islanders escaped unharmed, Rongelap resident Aruko Bobo remembered otherwise. "Nearly all the people on Rongelap became violently ill," she told researcher Holly Barker in 1994. "Most had painful headaches and extreme nausea and diarrhea. By the time of our evacuation to Kwajalein, all the parts of my body that had been exposed that morning blistered and my hair began to fall out in clumps. I just had to run my fingers through it and it would come out full of dust."

Echoing Bobo's description, another Rongelap resident, Nerja Joseph, told Barker in 1999:

"When the fallout came, it fell on our rice and food. We threw out the rice at the school. We threw it out because it was bad, it made blisters in our mouths. I used the well water that was soap-like because of the fallout dust on top of the water. I soaped my head. I put the fallout on my head. My hair fell out."<sup>52</sup>

For a radiation exposure that held so much importance to the public worldwide, *The Times* might have requested interviews with the evacuees by their correspondents based in Tokyo or Honolulu, rather than relying so exclusively on official pronouncements.

## Marshallese Land Is "the Very Life of the People"

The world's attention was focused on the aftermath of the Bravo shot in Japan when Marshall Island leaders sent a poignant petition to the United Nations ten weeks after the March 1 detonation. Before this petition, the Marshallese had received little *Times* coverage.

*The Times* gave front-page space of two columns in width to a map of the U.S.-administered Trust Territory of the Pacific Islands (TTPI) and an article about Marshall Islanders' petitioning the U.N.'s Trusteeship Council asking for an end to nuclear weapons tests. Eleven Marshall Island leaders and 100 citizens wrote that if the tests had to continue, their people should be taught safety measures to protect themselves and should be compensated for loss of their possessions. Faced with limited land for feeding 11,000 residents—and a growing population—the Marshallese stressed the importance of their land. Land means "more than just a place where you can plant your food crops and build your houses; or a place where you can bury your dead," the islanders wrote. "It is the very life of the people. Take away their land and their spirits go also," the petition read. On an inside page, *The Times* published the text of the Marshallese petition—and juxtaposed it with the U.S. reply that was given equal space.<sup>53</sup> The reply gave assurances that U.S. officials would do all that was possible to ensure that future tests minimized injury.

*The Times* accorded such prominent space to the article, map and two texts because the petition was expected to become an issue in the Trusteeship Council that was scheduled to begin meeting two weeks later. *The Times* article noted that in India, Japan and Britain, demands were being made for an end to the H-bomb tests. And at the U.N., the Soviet Union was expected to make "political capital" out of the petition, *The Times* reported.<sup>54</sup> *The Times*' expectations proved accurate. Another controversy did erupt when the Soviets proposed to the U.N. Trusteeship Council and its committee that the United States be banned from making more tests in the Marshall Islands. An Indian resolution, questioning the propriety of the tests, asked that the issue be sent to the International Court of Justice. Both resolutions were defeated in committee and by the 12-member Trusteeship Council. In the middle of *The Times* articles on the res-

olutions, however, one powerful Soviet argument was made that is still held by many Marshallese: that nuclear weapons experiments were really being made on the islands so the inhabitants could be studied to see the effects of radiation. Soviet delegate Mikhail M. Sumskol urged that U.S. nuclear tests be conducted only within U.S. national boundaries as his own country did.<sup>55</sup>

In 1958, a week before U.S. officials launched another series of nuclear weapons blasts, *The Times* published one of its few articles focusing on Pacific Islanders' sentiments about the U.S. tests. Written from Truk in the Eastern Caroline Islands, *The Times* Honolulu-based correspondent, Robert Trumbull, reported that thousands of inhabitants of the TTPI resented that their islands were being singled out for U.S. nuclear weapons tests. *The Times* wrote that Chief Ring, from an island southeast of Truk, asked U.S. officials how people on remote islands without radios were supposed to know when fallout occurred. He also asked how radioactive dust would affect coconuts, how to prevent contamination of drinking water and how to know how long the radioactivity would last. U.S. officials responded with reassuring remarks.<sup>56</sup>

Two years later, *The Times* devoted only three paragraphs to an article telling of two Marshallese who appeared before the Trusteeship Council. They asked the Council to review the U.S. administration of its Trust Territories and to provide for hearings for islanders' appeals to independent courts rather than through tribunals that were U.S. creatures.<sup>57</sup> When their requests were denied, the Marshallese later filed lawsuits in U.S. courts.

## **Bravo-Dusted Rongelap and Utrik Islanders: Human Subjects for “Secret Restricted Data” Project 4.1**

Those evacuated from Rongelap and Utrik atolls and those camping on Ailinginae disappeared from the news for the next year, because of the AEC's clampdown on information. But if they were not making news in *The Times*, they were making history in the medical world. The evacuees from Rongelap and Utrik became a noted documented case of an exposure of people to localized radioactive fallout.

"Although the number of persons exposed was small," medical researchers noted, "this incident provided valuable material for estimating the extent and, particularly, the duration of the effects of fallout." In somewhat different terms, scientist Neal O. Hines explained the uniqueness of the Rongelap and Utrik Islanders: "Never before in history had an isolated human population been subjected to high but sublethal amounts of radioactivity without the physical and psychological complexities associated with nuclear explosion."<sup>58</sup>

Besides yielding 1,000 times more nuclear energy than the bomb dropped on Hiroshima in 1945, the Bravo shot differed from that weapon in another way. The Hiroshima bomb, as well as the one that devastated Nagasaki, was detonated at such a height that limited fallout occurred; survivors of the initial blast and shock suffered delayed effects from the radiation of the bomb itself. In contrast, the Bravo shot was detonated so close to the earth's surface that it spewed forth gigantic amounts of coral, dirt and water that absorbed the radioactive elements just released from the explosion. This explanation of Bravo's radioactive fallout and of its enormous yield was absent from the AEC's first press release and from the first news articles in *The Times*.

Within days after Bravo, a chain reaction of events swept the Rongelap and Utrik Islanders into a top-secret project in which they were used as human subjects to research the effects of radioactive fallout. It was top-secret, not for purposes of national security, but for purposes of avoiding adverse publicity likely to result from the Soviets and others for U.S. maladministration of the U.N.'s Trust Territory. It was a project in which the exposed islanders were neither asked for nor gave their informed consent, one that they would not learn the true nature of for forty years.

In addition, as detailed below, a few of the islanders were also studied and discussed as part of another immense program that, as a 1986 House Subcommittee Report described, made "frequent and systematic use of human subjects as guinea pigs." This use occurred when the islanders were subjected to various tests involving radioactive materials without being told the risks, without being asked for their informed consent and without gaining any benefit. The AEC had established formalized standards for patient consent to experi-

mental procedures in 1947,<sup>59</sup> but, as previously mentioned, these standards had been circulated only to the level of the secretaries of the three military services.

Documents declassified since 1994 reveal much about these secret Marshallese projects, but they have been unreported in *The Times*, even when they were discussed in Congressional hearings. These documents show that four months before the Bravo shot, on November 10, 1953, U.S. officials had listed Project 4.1 research on the effects of fallout radiation on human beings as among 48 experiments to be conducted during the nuclear test, as was discussed above, thus revealing that using islanders as guinea pigs was premeditated. Three days after the surprisingly powerful Bravo shot, Project 4.1 began to unfold in Washington, D.C., when top medical officials deemed the victims of Bravo's hazardous debris would be appropriate research subjects for the study of the effects of radioactive fallout. About March 4, Cronkite was instructed to report at once to the Navy Surgeon General's Office, where half a dozen top officials in the AEC's medical program were assembled. In response to a request from the military commander in the Pacific, they were preparing to establish a medical team that would fly to Kwajalein to take care of the islanders and servicemen and to study the effects of Bravo. Within days, a contingent of 25 departed for Kwajalein, arriving on March 8. Upon landing, Cronkite was handed a "letter of instruction" establishing "Project 4.1." Titled the "Study of Response of Human Beings Exposed to Significant Beta and Gamma Radiation Due to Fallout from High Yield Weapons,"<sup>60</sup> the document was classified as "Secret Restricted Data" until 1994, three years after U.S. responsibilities for the TTPI at the U.N. had ended and when the Clinton Administration began an open-government initiative. The Restricted Data classification applies to data relating to nuclear weapons and materials and can be declassified if there is no "undue risk" to national security. Six weeks after Bravo, on April 14, the Project 4.1 team members recommended a "life long" study of the islanders.

## Restricted Data "Due to Possible Adverse Publicity"

The Project 4.1 document stated that "due to possible adverse publicity reaction, you will specifically instruct all personnel in this project to be particularly careful not to discuss the purposes of this project and its background or its findings with any except those who have a specific 'need to know.'"<sup>61</sup>

Under Project 4.1, the exposed Rongelap and Utrik Islanders were studied regularly—every year for the Rongelapese and for the Utrik Islanders after thyroid nodules on them began appearing in 1963. The islanders began complaining they were being treated like guinea pigs in a laboratory experiment rather than sick humans needing treatment. A doctor who evaluated them annually came close to agreeing when he wrote 38 years after Bravo, "In retrospect, it was unfortunate that the AEC, because it was a research organization, did not include support of basic health care of populations under study."<sup>62</sup>

In late 1954, the AEC delegated responsibility to the Brookhaven National Laboratory in suburban New York for regular long-term medical studies of the Marshallese.<sup>63</sup> Brookhaven scientists were happy with their assignment. One noted that on Rongelap Atoll "the levels of activity are higher than those found in any other inhabited location in the world. The habitation of those people on the island will afford most valuable ecological radiation data on human beings."<sup>64</sup> These "exposed" persons are still being studied in a U.S. medical program that now also provides treatment.

## Return to Radioactive Rongelap

Seven weeks after Bravo, on April 21, Cronkite wrote military officials in Honolulu that Project 4.1 members recommended that the Marshallese "should be exposed to no further radiation, external or internal with the exception of essential diagnostic and therapeutic x-rays for at least 12 years. If allowance is made for unknown effects of surface dose and internal disposition there probably should be no exposure for [the] rest of [their] natural lives."<sup>65</sup>

Despite this recommendation, after three years, when the Rongelapese had spent three months at the Kwajalein military facil-

ity and then were moved to Ejit Island in Majuro Atoll, U.S. officials returned the Rongelapese to their radioactive homeland in 1957.

Utrik Islanders had returned home shortly after their medical examinations at Kwajalein. U.S. officials assured the Rongelapese their home island was safe, based on airplane readings for radioactivity made at 200 feet above ground. With the islanders' return to their home atoll, U.S. medical officers shifted the emphasis of surveillance to what researchers who had studied the U.S. documents released in the 1990s described as "the formation of an integrated long-term human environmental research program to document the bioaccumulation of fallout and the human effects of this exposure."<sup>66</sup> In effect, U.S. officials knew they were placing the Rongelapese back into a radioactive environment and did so to study the effects. It is one thing to permit a group of people to become exposed to harm when, perhaps, the extent of the fallout had been underestimated prior to the event, even if experimenters had planned in advance to take advantage of the situation. It is quite another then to deliberately place those same victims back into a radioactive environment.

The Rongelapese remained in their radioactive homeland for 28 years until 1985 when they discounted U.S. assurances that the island was safe and persuaded Greenpeace to move them once again. During those 28 years, they lived in an environment that had been contaminated not only by Bravo and five other shots in Operation Castle in 1954 but also by the residue from the Operation Redwing in 1956 and Hardtack I in 1958. Fallout from Hardtack resulted in higher levels of plutonium that were later detected in medical and environmental surveys. Data on radiation levels from both of these two operations, with combined yield greater than Bravo, have been requested by the Marshallese government but almost 50 years later it has yet to receive them from U.S. officials.<sup>67</sup>

### Lying with the Help of *The Times*

The AEC completed a report on the Bravo test in November 1954 but did not release it until February 15, 1955, nearly a year after the Bravo test. Even the release of this delayed report had been



withheld for three months for fear it would "adversely affect international situations," which AEC Chair Strauss refused to divulge to the press. But the delay made clear that the U.S. understood these tests to be controversial.

*The Times* gave the released AEC report front-page prominence focusing on its implications for U.S. civil defense. Significantly, despite the fact that the report discussed it, this *Times* article fails to even mention the Bravo-tainted Rongelap and Utrik Islanders whom a year earlier it had reported being evacuated to Kwajalein. The headline and the sub headlines above *The Times* article accurately depicted its contents:

U.S. H-BOMB TEST  
PUT LETHAL ZONE  
AT 7,000 SQ. MILES  
Area Nearly Size of Jersey  
Covered by Atom Fall-Out  
After Bikini Explosion  
CIVILIAN PERIL STRESSED  
Strauss Warns That Human  
Survival Might Depend on  
Prompt Protective Steps<sup>68</sup>

*The Times* also published the text of the AEC report. One section of the report, as reprinted in *The Times*, is headed: "Fall-Out Pattern of 1954 Test in the Pacific." In it, the AEC defined the roentgen as the commonly accepted unit of measurement of radiation dosage and indicated that about 450 roentgens, delivered over a day or so, might be fatal to approximately half of the persons so exposed. It then estimated levels of 1,000 to 2,300 roentgens at Rongelap Atoll for the first 36-hour period after the fallout. It added that sufficient radioactivity in a downwind belt that included Rongelap could have seriously threatened the lives of nearly all persons in the area who did not take protective measures. Then it claimed: "During the actual tests, of course, there were no people in this zone."<sup>69</sup>

Before this report, the AEC had released little information about the health conditions of the Rongelap and Utrik Islanders and what it did release indicated they were doing fine. Now the above report purports to deny that any humans were affected by the Bravo shot fallout with the remarkable representation that "there were no people in this zone" at the time of the test. Yet the zone did include

Rongelap, Rongerik and Utrik atolls, as implied in the AEC's own listing of distances hit by Bravo's cloud. The AEC's representation is disingenuous because in March 1954, the AEC had officially, albeit belatedly and only after Corporal Whitaker's letter to his home town newspaper had been published, confirmed that Pacific Islanders living on Rongelap and Utrik atolls at the time of the test had been evacuated several days later for medical treatment. *The Times* had published this official confirmation on March 12, 1954.<sup>70</sup>

The text of the AEC report as reprinted in *The Times* then contains the following summary:

Thus, about 7,000 square miles of territory downwind from the point of burst was so contaminated that survival might have depended upon prompt evacuation of the area or upon taking shelter and other protective measures.<sup>71</sup>

In light of the significant dangers to persons in the fallout zone as described in the AEC report—dangers which were highlighted emphatically in *The Times* headlines and sub-headlines to the article discussing the AEC report—it is equally remarkable that *The Times* did not ask for clarification of the contradictory statements—or about the current health of the Rongelap and Utrik Islanders who had been evacuated. Also remarkable was the fact that *The Times* made no effort to bring this glaring contradiction to the attention of its readers.

The AEC report makes it clear that persons in a fallout zone should be evacuated as soon as possible. In its March 1954 confirmatory statement, the AEC did not state when the Islanders had been evacuated. There was no follow-up on this question either and, as noted above, not even a mention of the Bravo-dusted islanders in *The Times* news article. Authoritative sources later indicated that the Rongelap and Utrik Islanders were not evacuated for at least 48 hours or up to 56 hours—thus leaving them exposed to much higher levels of radioactivity than would be potentially fatal over the 36-hour period that the AEC noted in its report.<sup>72</sup>

The AEC report stresses that persons in a fallout zone should take cover. There is nothing to indicate that the islanders living on Rongelap and Utrik had been alerted to take protective cover. And the Marshallese petition to the U.N. Trusteeship Council on May 15, 1954, which was published in *The Times*, implies that there was

no such alert. As noted earlier, the Marshallese petition voiced concern about the U.S. failure to forewarn the islanders of appropriate safety measures to take during nuclear testing. *The Times* articles indicate no followup questions of AEC officials on this point.

The AEC report suggested enough unasked or unanswered questions that followup investigation was called for about some of the world's most visible victims of and medical subjects on the effects of localized radioactive fallout. But no such investigation was forthcoming in *The Times*.

*The Times* later wrote that scientists soon criticized the administration's report. A leading geneticist criticized it, saying the administration's attempts to deny the damaging hereditary effects of radiation from nuclear tests had weakened public morale and led to defeatist propaganda.<sup>73</sup> Another scientist, Ralph Lapp, sharply criticized the Eisenhower Administration for withholding the report on the impact of the Bravo shot because doing so may have cost American lives. Lapp's criticism, made originally in an article in *The Bulletin of the Atomic Scientists*, was reported in *The Times* article as alleging that "excessive" government secrecy had caused a "year of paralysis" in Civil Defense preparations to counter dangers of radioactive fallout.<sup>74</sup> But no *Times* articles reported on any concern being expressed over the plight of the Bravo victims.

### **"Fallout Effects Gone In 6 Months": The Disappearance of Enterprise Reporting at *The Times***

What *The Times* did publish about the medical condition of the Rongelap Islanders was skimpy and reflective only of disclosures of U.S. government officials or contractors during this period in which the Eisenhower Administration was increasingly subject to criticism among Soviet-allied and Third World states at the U.N. The lay public and luminaries like Albert Einstein, Albert Schweitzer, Nobel Prize chemist Linus Pauling, Pope Pius XII and Prime Minister Nehru of India called for an end of nuclear bomb tests that had become a controversial subject in the 1956 presidential election. It might be acceptable when reporting certain issues which lack con-

trov­ersy to rely solely on government pronouncements. But when the subject is the world’s most conspicuous victims of H-bomb fall-out, readers could reasonably expect enterprise reporting from a newspaper that touted just that.

Except for the news stories immediately following their evacuation in March 1954, the plea to the U.N. and the implications in the February 15, 1955 AEC report discussed above, *Times* information about the condition of the inhabitants of Rongelap and Utrik atolls consisted of the following 14 items over the next eight years, until 1962 when the U.S. Pacific nuclear tests ceased. All articles were placed on the inside pages. They were either brief news items or paragraphs tucked into longer articles, as follows:

- three months after the Bravo test, a four-paragraph story and two maps announced that the 82 “poisoned people” evacuated from Rongelap had been moved to a small island in the Majuro Atoll;<sup>75</sup>
- four months after the Bravo test, on July 11, the “News of the Week in Review” section, stated in a sentence that Bravo victims, thanks to U.S. medical aid, had been “nursed back to health”;<sup>76</sup>
- on July 21, 1954, the next to last of 17 paragraphs said the 236 Marshall Islanders had recovered, based on the semi-annual report of the AEC to Congress;<sup>77</sup>
- nine months after Bravo, a 23-word mention on January 30, 1955, in the next to last paragraph of a 32-paragraph story, based on an annual AEC report, said that “All Marshall Islanders injured by radioactive dust from the hydrogen bomb shot of last March 1 had recovered and were ‘in excellent health’”;<sup>78</sup>
- 14 months after Bravo, a 17-paragraph article on June 9, 1955, with the misleading one-column, two-line headline indicated “FALLOUT EFFECTS GONE IN 6 MONTHS”; as mentioned above, it was based on a report at the American Medical Association meeting by five U.S.-employed doctors; the lead of *The Times* article indicated that the Rongelap Islanders had recovered from their major ailment—skin damage—and the body of the article indicated radiation had produced blood changes but it was silent on the possible latent effects of these changes;<sup>79</sup>

- nearly two years after Bravo, in a four-paragraph article on December 13, 1955, from Washington, the Navy reported the apparent recovery of all the Pacific Islanders dusted with radioactive fallout from the super hydrogen bomb test;<sup>80</sup>
- a five-paragraph article on June 7, 1955, from the United Nations based on the required U.S. report submitted to the Trusteeship Council represented that there had been no ill effects from latent radiation for the Rongelap or Utrik Islanders;<sup>81</sup>
- on April 7, 1957, a three-paragraph article said six Rongelapese were being tested at the Argonne National Laboratory to determine the amount of radiation in their bodies;<sup>82</sup>
- on April 9, 1957, a 40-word news brief stated six Marshallese "were pronounced apparently fit" after undergoing extensive tests at the Argonne National Laboratory near Chicago;<sup>83</sup>
- on June 4, 1957—three years and three months after the disastrous shot—a senior doctor with the AEC's Brookhaven National Laboratory testified before a Congressional subcommittee about which *The Times* reported in three paragraphs in the middle of a 16-paragraph article about the "suggestive" evidence that the radiation from Bravo had resulted in "slight impairment" of growth and development of the children exposed to the fallout;<sup>84</sup>
- on July 21, 1957, an eight-paragraph item announced "FALL-OUT VICTIMS IN SOUND HEALTH"; it was based on an article in the *Journal of the American Medical Association (JAMA)*. The Times story ignored AEC-sponsored data in the JAMA article about the stunted growth of two young boys subjected to Bravo's fallout and the similarity of this finding with information about Japanese boys who had survived the A-bombings of Hiroshima and Nagasaki and it ignored four photos showing youngsters' pronounced fallout-caused burns;<sup>85</sup>
- on August 17, 1958, in the five middle paragraphs of an article, a Brookhaven doctor told the First International Congress of Radiation Research that Marshall Islanders were still carrying measurable amounts of radioactivity in their bodies because of Bravo's fallout, but that they showed no signs of developing bone cancer or leukemia;<sup>86</sup>

- on May 22, 1959—five years after the Bravo shot—a two-column, 11-paragraph news story and map indicated that the Rongelapese had recovered completely from the physical ill effects of radioactive fallout, but were suffering emotionally and psychologically, based on a report from a four-member mission of the U.N. Trusteeship Council that visited the islands;<sup>87</sup>
- on July 2, 1959, a one-paragraph mention in a five-paragraph article from the U.N. Trusteeship Council that the Rongelapese were free from the effects of radiation but still suffered from “psychological distress.”<sup>88</sup>

The 1957 *JAMA* article was significant in that it referenced five U.S. government medical reports assessing the effects of fallout on the Marshallese, including one report assessing them six months after their exposure and another report assessing them twelve months after exposure. Significantly, one of the five was produced at the Brookhaven National Laboratory in suburban New York. These five medical reports were not accessed by *The Times* and shared with the public nor were the four photos showing skin burns resulting from fallout described or reproduced. Nor did *The Times* publish any other examples of enterprise reporting on the medical condition of a select population that provided first-hand clues to the effects of H-bomb radioactivity on humans, an issue of growing global importance and controversy. As noted above, *The Times* news item based on the 1957 *JAMA* article had omitted the medical evaluation of the stunted growth of two Bravo-dusted youth, which might have signaled thyroid deficiencies to the medical specialists at the Brookhaven National Laboratory who regularly monitored the islanders. But the islanders' thyroid abnormalities were not disclosed publicly until 1963 just after U.S. Pacific nuclear testing ended under an agreement with the Soviets.

Only after it had signed the 1963 treaty with the Soviets did the U.S. government begin to release the grim statistics about the health of the Bravo victims that had been undisclosed during the period of intense diplomatic maneuvering and of racing with nuclear arms. In 1964, for example, *The Times* told of President Johnson's authorizing a payment of \$950,000 to the Bravo victims and disclosing for the first time that five of 82 Bravo-dusted Rongelapese had died.<sup>89</sup>

Later, in 1968, *The Times* gave much prominence in a six-column, text-map spread stating that 17 out of 19 Rongelap children who were less than 10 years old when they were dusted by Bravo's fallout had developed thyroid gland abnormalities. In 1972, *The Times* gave three-column, text-map prominence to an article reporting on the death from leukemia of 19-year-old Leko Anjain; he had earlier had thyroid nodules removed. Two years later, *The Times* gave prominence in a three-column, text-map display reporting that 25 of 89 Bravo-dusted islanders had undergone surgery for thyroid abnormalities. The article also reported that during the first five years after radiation exposure, the rate of miscarriages among the Rongelap women was higher. The impetus for this story was a Berkeley group called Friends of Micronesia but most of the story relied on official U.S. sources. In a *Times* article in 1978, more grim health statistics were circulated at an International Conference for a Nuclear-Free Pacific in Suva, Fiji, where an unnamed delegate reported that after the U.S. Pacific nuclear weapons tests in the 1950s, the rate of stillbirths on Rongelap was more than the double the rate for the rest of the islands.<sup>90</sup> As noted in the next chapter, however, *Times* coverage devoted to health of Bravo-dusted islanders since 1980 reached the near-invisibility level given to them during the testing period.

### *Times'* Neglecting Authoritative Sources on Fallout Victims

*The Times* could have readily learned that the medical effects from the Bravo shot were resulting in more health problems for the Marshall Islanders than the U.S. government was releasing before the end of U.S. Pacific nuclear weapons tests on November 4, 1962. But it neglected to do so.

Medical literature in the public domain was available to *The Times* showing that U.S. government reports or announcements about the health of the Marshallese were either too sketchy or else self-serving. But no evidence appears that *Times* reporters took advantage of this open literature or other sources to demonstrate the independent news judgment it had touted since Ochs' "without fear or favor" credo of a half century earlier. For example, during the first five years after the Bravo shot, doctors from the Brookhaven

National Laboratory found an increase in miscarriages and stillbirths among the irradiated Rongelap Islanders, a lag in complete recovery of some blood elements, evidence of slight chromosome aberrations in some blood and a degree of growth retardation in a few children.<sup>91</sup>

That *The Times* did not investigate such early effects of radioactivity on the Marshallese at the time—or by 1962—signals a disregard for the health of the islanders and for public knowledge on a vital issue. One reason demonstrating this disregard is that only two months after the 1954 Bravo shot, *The Times* published an article disclosing that radiation injury to pregnant women exposed to the A-bombing of Nagasaki nine years earlier had caused a high rate of birth failures or death to their offspring. *The Times* had buried this four-paragraph article amongst the ads on Page 36. Yet the results of this study published in the *Journal of the American Medical Association (JAMA)* were so remarkable they should have prompted followup questions about effects on Marshallese women and implications for others worldwide. *The Times* reported that of 30 pregnant Japanese women exposed to radiation from Nagasaki's A-bomb, the study found ill effects or worse in more than half of them:

- 3 had miscarriages
- 4 had stillbirths
- 3 of their babies died within one month of life
- 3 of their babies died within the first year
- 1 baby died within two and a half years of life
- 4 of the remaining 16 were mentally retarded.<sup>92</sup>

Moreover, historically, soon after the discovery of X-ray at the turn of the century, radiation of women in early pregnancy had been linked to their offsprings' smaller head size and mental retardation. By 1954, medical literature showed that six years after the bombing of Nagasaki the main effect of exposure to radiation during early pregnancy was death of the embryo.<sup>93</sup>

Beginning several years after Bravo, U.S. doctors noted that five of 19 Rongelap children (or over 25 percent) exposed when they were younger than 10 years old showed retardation of growth<sup>94</sup> but this finding went unreported in *The Times*. It took a Nobel prize winner speaking out to get some mention in *The Times*. In 1957, the controversial chemist Linus Pauling remarked that radioactive fallout produced by nuclear tests would cause the mental or physical



retardation of children and shortened life span for all ages.<sup>95</sup> *The Times* devoted a five-paragraph article to Pauling's stunning announcement.

By 1963, as the U.S. and Soviet governments signed the limited test ban treaty barring nuclear experiments in the atmosphere, in space and underwater—the experiments that produced the most radioactive fallout—U.S. doctors began finding lesions on the Islanders' thyroid glands, which had absorbed radioactive materials both through inhalation of air and the taking in of food. Also by 1963, doctors noted evidence suggesting that genetic mutations may be developing. And, they noted that the possibility of genetic effects in the offspring was then of serious concern to the Marshallese people and deserved further study.<sup>96</sup>

At the time of the Bravo test in 1954, U.S. medical literature began to appear describing the "great increase" in the incidence of leukemia among atomic bomb survivors of Hiroshima and Nagasaki. One article considered it significant that the largest number of leukemia cases had their onset five years following exposure to the atomic bombing of those cities.<sup>97</sup> For the first time, medical specialists had a more accurate picture of the latent effects of radiation-induced leukemia in human beings resulting from a single massive dose of radioactivity.

As Hiroshima's Mayor Takashi Hiraoka told the World Court in 1995: "Five to six years after the bombing, a dramatic increase was recorded in leukemia and other late effects," including cataracts, thyroid cancer, breast cancer, lung cancer and other cancer. Fetuses whose mothers had been exposed to radioactive fallout were often born with a syndrome involving mental retardation and stunted growth.<sup>98</sup>

Given that the evidence for latent leukemia and other delayed diseases in Japan was being published at the time of the Bravo test in 1954, reporters could, with a little digging, have predicted that the effects of Bravo would start showing up in a few years. And they certainly could have been prepared to report on them in 1959 when these effects would have been expected to surface. Amassing and disseminating factual information about the direct effect of radioactive fallout on the Marshallese would have alerted others worldwide and would have given clarity and meaning to a significant issue on which readers often received contradictory assessments.

One might be tempted to believe that, at the dawn of the H-bomb age, scientists didn't know what might happen, and *The Times* should be excused for being unable to find out what scientists themselves didn't know. But a close look reveals just how much public information was available during the years before the test ban was put into effect.

Public information available before 1963 showed the life-threatening effects on animals of plutonium and other radioactive materials being generated by nuclear weapons tests. The value of animal studies to radiation-induced effects on humans was demonstrated when U.S. researchers scoured Rongelap in 1954 to capture animals that had been exposed to Bravo's fallout and radiation. A July 1954 report indicated that sixty-six chickens, pigs, cats and ducks had been brought back for study from Rongelap "since if anything does show up it will be more likely to show up sooner in the animals, and would give us some idea of the prognosis for the humans over a longer period of time." Indeed, samples from two pigs showed that they had been exposed to radiation from "two separate and distinct exposures to fallout material."<sup>99</sup>

Even earlier, in 1949, the AEC had begun publication of a comprehensive series of up to 60 health research volumes titled the National Nuclear Energy Series. These volumes drew together results of the effects of plutonium and other radioactive materials from the earliest days of the Manhattan Project and carried the research forward to the 1950s. These volumes, published by McGraw-Hill in New York not far from *The Times* office and publicly available, presented numerous articles—and some photographs—of the effects of plutonium, uranium or other radioactive materials injected into, fed to or inhaled by rats, rabbits, dogs or mice on many of their organs and bodily functions.

From animal studies, the AEC jumped to studies in which humans were injected with plutonium or other radioactive materials. That same 1950 volume, devoted to rat and rabbit studies in what it called the University of Rochester project, also contains a chapter detailing that the radioactive substance of Polonium-210 had been injected into four hospital patients and given orally to a fifth between 1943 and 1947 at the hospital near the University of Rochester. All patients were described as having incurable diseases

and ranged in age from early 30s to early 40s. The doses they were given ranged from nine to 22 microcuries—far above the maximum permissible limit of 0.4 microcuries. The purpose of the experiments was to obtain data on human excretion of polonium, one of the earliest radioactive materials discovered at the turn of the century, so as to obtain a correlation with more extensive data on rats. No evidence of patient consent was given for these experiments. One patient died within six days, but no medical followup was made on these other experimental subjects.<sup>100</sup> This 1950 volume was titled *Biological Studies with Polonium, Radium, and Plutonium*.

Even granting the deficient reporting in *The Times* during the 1950s and '60s, one might excuse it as the product of Cold War tensions. But the practice of ignoring significant stories continues well past those tense times. The 1950 volume mentioned above drew the attention of a House Subcommittee report that described the "frequent and systematic use of human subjects as guinea pigs," when they were subjected to various tests involving radioactive materials without being told the risks, without being asked for their informed consent and without gaining any benefit from the test—in sum, violations of medical ethics and federal guidelines. That House report carried the unmistakably newsworthy title of "American Nuclear Guinea Pigs: Three Decades of Radiation Experiments on U.S. Citizens." But even 36 years later, in 1986, *The Times* offered no coverage of the Congressional findings.

Besides the 1950 volume, the University of Rochester was often mentioned in the AEC regular reports to Congress as receiving medical and biological research funds. Because of its proximity to *Times* readers, that institution might readily have been considered newsworthy. And by 1999 it certainly was. Then the most comprehensive set of Cold War plutonium injections into humans without their consent or benefit that were conducted in Rochester was revealed by Eileen Welsome in her award-winning *The Plutonium Files, America's Secret Medical Experiments in the Cold War*.<sup>101</sup> *The Times* had missed for decades a major story in its own backyard of Rochester.<sup>102</sup>

The 1986 House Report discussed the U.S. Pacific nuclear tests and the Marshall Islanders. The report described as a successful example of medical followup "a study population" of the group of

Marshall Islanders exposed to fallout from early atomic bomb tests. This retrospective study of the Marshallese, which began under AEC contract in 1951, at Case Western Reserve University, noted the long latency period for the onset of clinical effects; no dates were provided. Even inhabitants of Utrik, who were farther away from the explosion of the bomb than were Rongelapese and thus received a lower dose of fallout, were now being operated on for unspecified ailments but probably relating to thyroid abnormalities. The House Report, noting that this study of the Marshallese seemed to “emphasize the risk of the low dose range,” indicated this retrospective “is not considered an experiment, but the project shows clearly the necessity and usefulness of long term medical followup of irradiated populations.”<sup>103</sup>

Many more such studies were revealed in the 1990s. Disclosures about them uncovered numerous other references to publicly available human radiation experiments during the Pacific testing period.<sup>104</sup> As documented in Chapter 10, several experiments using Rongelap and Utrik Islanders as subjects were unreported in *The Times* even when they were discussed before Congressional committees and buttressed with U.S. government documents.

More systematic searching of the medical literature by *Times* reporters—or *The Times* medical editor—might have exposed these experiments that were written about in materials in the public domain. And this searching might have exposed, even before the first hydrogen weapon explosions in 1952, the debilitating effects of radioactive materials on humans and animals. Ironically, it was by scrutinizing obscure scientific journals like these that *Times* science writer William L. Laurence had built his reputation for being able to track and translate atom-splitting developments that led to building weapons.

*The Times* was then one of the nation’s few newspapers with a medical editor, Howard A. Rusk. But he generally wrote about post-World War II rehabilitation, rather than medical developments focusing on current or future nuclear-age problems. His only article listed in *The Times* index that is devoted to cancer was one in which he traveled to the Bahamas to reveal research on that disease in fish. But he failed to travel to or write about the developing thyroid cancer or abnormalities in the Marshall Islands. And the index indicates that he also failed to access the open literature on this pivotal

subject for his columns or to interview medical specialists at Brookhaven National Laboratory, who were regularly tracking the Rongelapese and conducting numerous human radiation experiments. Rusk did attempt, in late 1954, to get information from U.S. sources on the effect of fallout but, he wrote a *Times* executive, he failed because such data required "Q" security, "which is the highest possible."<sup>105</sup> This is a poor excuse. Surely he was correct that security issues would have barred him from gathering some information from the military. Yet given the wealth of public sources available, his efforts were poor at best.

Besides having a medical editor, *The Times* was in a unique position to discover more than the U.S. government was publicly divulging during its Pacific nuclear weapons testing period about the Rongelap and Utrik Islanders' medical condition for at least five reasons. But the newspaper neglected to use these advantages.

First, William Laurence, its Pulitzer Prize-winning science writer and science editor, or other reporters, could have sought sources about the effects of radioactivity on the Marshallese but neglected to do so.

Second, the existence of some medical assessments of the Marshallese was known because, as noted above, five such reports were referenced in the July 1957 *JAMA* article but were unmentioned in *The Times*' story.

Third, most medical examinations and reports about Marshallese health were made by personnel associated with the Brookhaven National Laboratory, situated less than 100 miles from *The Times*' doorstep; regular—often annual—reports by the Brookhaven medical staff were written on the medical condition of the Rongelapese beginning in 1955.<sup>106</sup>

Fourth, the Brookhaven National Laboratory, operating directly under the Atomic Energy Commission, was a secured installation but not a secret, off-limits area; in fact, its declassified sections were a showplace for visiting royalty, schoolchildren and even Communist delegations.<sup>107</sup>

Fifth, if U.S. officials denied *Times* reporters access to these official reports by stonewalling or by withholding pertinent information on the Marshallese, a news story was also warranted because the U.S. and Soviet governments were criticizing each other for secrecy.

## *The Times'* Overlooking of Legal Literature

Another productive source left largely untapped by *The Times* was legal literature. Within three months of the announcement of the destruction of Hiroshima and Nagasaki, law review commentaries on atomic weapons began appearing.<sup>108</sup> From 1945 through 1963, 314 law journal articles on atomic-related problems appeared, based on a count of references listed in the authoritative *Index to Legal Periodicals*.

*The Times* neglect of this source of information and commentary is surprising. After the first two bombs dropped on Japan, *The Times* had published articles from international law conferences that backed U.S. bombings of those populated areas but it then failed to systematically followup on legal sources. Especially after the 1954 Bravo test made clear the worldwide effects of radioactive fallout, governments and prominent citizens began expressing increasing concerns about the tests and the U.S. administration of the Trust Territories on behalf of the U.N. Speeches or writings of newsmakers such as scientist J. Robert Oppenheimer or the head of the Joint Committee on Atomic Energy also appeared in these legal journals. Fear of lawsuits had gripped U.S. officials from the beginning of their atomic bomb-making and claims against the government or its contractors began mounting as nuclear plant accidents and adverse health effects became more numerous, but these received scant attention in *The Times*. Legal scholars also began writing about access-to-information issues they encountered related to disclosure of atomic secrets in litigation or what they foresaw as affecting the public.<sup>109</sup> These articles would have informed journalists striving to improve their own techniques and sources for using or accessing nuclear-related documents.

In summary, the riveting saga of the Bravo H-bomb explosion and its aftermath reveals a pivot point in the global history of the nuclear age. The most destructive experiment in U.S. nuclear history that yielded the explosive force of 1,000 Hiroshima-size bombs, Bravo's explosion of March 1, 1954 and its aftermath made visible to the world the global terror of radioactive fallout and laid bare U.S. government deceptions about the hazards of bomb-produced radioactivity that were left unexamined by *The Times*. Bravo's revelations resulted from the dusting with snow-like radioactive parti-

cles 236 Pacific Islanders and 23 crewmen on a Japanese tuna trawler, created an outrage in Japan that rippled out internationally and left a legacy of disease and degradation that persists half a century later.

*The Times* coverage of this historic period that endangered the entire planet was marked by continuation of its conspicuous adherence to the U.S. government propaganda that it had toed since the dawn of the atomic age with its privileged, exclusive access to the earliest Ground Zeroes in New Mexico and at Nagasaki. *Times* coverage during the post-Bravo period not only echoed, but also added credence to, the inaccurate or deceptive statements of Eisenhower Administration officials when they needed it most. Only a chain reaction of surprises laid bare the lies and deceptions of U.S. policy-makers that with substantial help from *The Times* had minimized or even denied for a decade the dangers of radioactivity resulting from atomic weapons use and tests. Bravo gave impetus to growing concerns of and demands for an end of atmospheric experiments that were temporarily halted in the Pacific in 1958 for four years and then permanently banned by the 1963 Limited Test Ban treaty between the U.S. and Soviet governments.

The unique role of the 236 Bravo-dusted islanders was immediately recognized by U.S. officials and echoed by *The Times*. Then as highlighted in the second paragraph of a 1955 article, *The Times* described the Bravo "accident" as "the only major experience mankind has had with fallout from a nuclear device, presumably an H-bomb." Despite the recognition of the islanders' serving as an early warning to the rest of the world about immediate and latent effects of bomb-produced radioactivity, *The Times* echoed government officials' words that the islanders were doing fine, neglected to question or even expose these government statements that were contradicted a year later by grisly photographs of children's hair loss and skin sores and neglected to follow up on their health conditions that were annually or semi-annually checked out by U.S. medical personnel at the Brookhaven National Laboratory, not far from *The Times* newsroom. Moreover, these status reports on the islanders' health were regularly discussed in open literature that *Times* reporters and the medical editor overlooked.

Recognizing the importance of the Bravo-dusted islanders in

providing data about radioactive fallout that was by then touching everyone worldwide, U.S. officials established immediately Project 4.1 to monitor them by taking their bodily specimens and readings without their informed consent and without immediate benefit to them, as required by medical ethics and federal guidelines. This human subject research project was kept secret for 40 years to avoid adverse publicity until government records were declassified beginning in 1994. As another part of its human subject research, U.S. officials resettled the Rongelapese for 28 years on their radioactive home atoll that they were told was safe even though a U.S. medical specialist had initially instructed that they should not to be exposed to any additional radiation during their lifetime. As detailed in Chapter 10, the disclosure made 40 years after the fact of the government's human-subject research on the islanders in Project 4.1 and related experiments was left unreported in *The Times* even when it was discussed in Congressional materials beginning in 1986.

Thus, the principles that Adolph S. Ochs had espoused and advertised to publish news on questions of public importance "without fear or favor" were often found wanting in *The Times* coverage of radioactivity and its victims during the dawn of the H-bomb era. In moving its coverage from the dawn to the high noon of the nuclear age, would *The Times* recognize and correct its News-Zero deficiencies of the past so as to expose a half century later the bitter legacy of U.S. weapons tests in the Pacific?



**PART 2:**  
**1980-2004**

*“The Only Victims of U.S.  
Nuclear Arms Since World  
War II Have Been  
Our Own People”*

*Times’ Coverage of  
“Cute Little Brown People”*

June 30, 1996. *The Times* remembered the date of the 50th anniversary of Operation Crossroads, the “major media event” at Bikini Atoll that, for the first time in history, provided the sounds and sights of an atomic bomb explosion to the world. In remembrance of that spectacular, *The Times* published a 425-word article on a back page of its Sunday Magazine.

For that article, *The Times* elected not to inform readers that the 170 Bikinians, evacuated so that their ancestral homelands could serve as an experimental test site, had remained nuclear nomads for 50 years. Having been moved to three different islands and atolls in two years and nearly starving to death on one of them, they came to embody, by 1994, what historian-lawyer Jonathan Weisgall described as “a case history of U.S. bureaucratic incompetence and neglect.”<sup>1</sup>

Nor, on June 30, had *The Times* elected to profile those Operation Crossroads servicemen who had since joined about 250,000 other atomic veterans in suing their own government and finally persuading Congress to compensate them for any of 13 kinds of cancers.<sup>2</sup>

Instead of the radioactive realities that had transpired at Bikini Atoll, *The Times* focused its 425-word retrospective on a 49-year-old French engineer named Louis Reard. The article, titled “Birthday

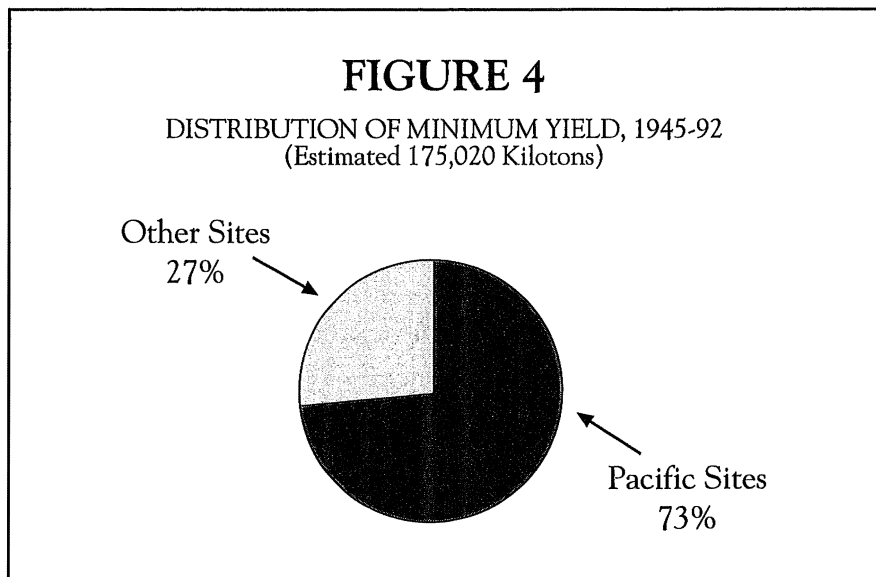
Suit," told of the invention of a two-piece bathing suit by Reard, who had seized the idea because of the first Operation Crossroads test at Bikini Atoll. Baring the navel and advertised by skywriters as "smaller than the smallest bathing suit in the world," the bikini was a sensation when it was introduced at a Paris fashion show in 1946.<sup>3</sup>

*Times* coverage of this anniversary raised the question: Had any change from the 1946-62 testing years occurred in news content in *The Times* amidst its transition from earlier publishers and from the Cold War era? This chapter reveals *Times* coverage did change. After signing with the Soviets the 1963 treaty banning atmospheric nuclear tests, the U.S. government began to release more information about the medical problems of the islanders still under its trusteeship care and the Marshallese themselves initiated their own campaigns of resistance. However, *The Times* also missed coverage of some explosive Congressional sessions. As noted earlier, *The Times* covered nothing about the 2004 Compact of Free Association—except for a mention of 15 words in a 1,072-word article about renegotiations—and half a dozen hearings on it were held in Congress.

## **1994 U.S. Documents: Equivalent of 1.47 Hiroshima-size Bombings Per Day for 16 Testing Years**

*Times* articles from 1980-2004 give readers little sense of the enormous place of the Pacific in U.S. nuclear history or even global history. The magnitude of the vital role that the Pacific region has served across the 46-year span of U.S. nuclear weapons testing history was largely unreported in *The Times* and it could have been in light of newly released U.S. government documents. In 1994, the most recent, relevant and comprehensive list of all 1,054 U.S. nuclear tests worldwide was made available to the public, allowing scholars to calculate for the first time the significant role of the Pacific Islanders and their homelands in the entire U.S. nuclear testing program. Not until December 1993 were the explosive yields of 44 of the 66 U.S. nuclear weapons tests in the Marshall Islands made available to Marshallese officials, as was discussed earlier, thus allowing first-time calculations of the immensity of the yields of the Pacific tests.<sup>4</sup> The 86 Pacific tests surveyed in this book account for

up to 73.5 percent of the yield of all 1,054 nuclear tests conducted by the United States worldwide through 1992, when it ceased all nuclear testing, as is shown below in Figure 4. Only 7.8 percent of all of the 1,054 U.S. nuclear tests took place in the Pacific and those occurred from 1946-62, as shown in Appendix Table 1. But the yield of the Pacific tests was much more massive than all the other tests combined and they occurred in a much shorter span of time. The 16-year yield of the Pacific nuclear tests totaled up to at least 128,704 kilotons. As noted earlier, this yield over 16 years equated to the yield of 10.31 Hiroshima-size bombs per week or 1.47 per day through 1962.<sup>5</sup>



Since 1954, islanders from Rongelap, Utrik and neighboring atolls, as well as the *Lucky Dragon's* 23-man crew, served as the front-line harbingers of the effects of radioactive fallout that, by 1962, had touched everyone on the planet.<sup>6</sup> As noted earlier, due to fallout from U.S. atmospheric testing from 1946-62, with the vastly higher yield detonations occurring in the Pacific, up to 800,000 people in the United States and worldwide are estimated to have died or will die prematurely from fatal cancer attributable to the testing, or more than the 617,389 U.S. military killed in World War I and II and the Korean, Vietnam and Gulf wars combined.<sup>7</sup>

## Anniversary Journalism: The Second Rough Drafts of History

By spotlighting Reard's "birthday suit," rather than the Bikini of Operation Crossroads that had inspired its creation, *The Times* produced, on that day, a media-made view of the world that epitomizes what communication scholar Jill A. Edy and others call "anniversary journalism." Defining it as commemorative stories that have a convenient news peg, she notes that journalists write not only the first draft of history but also the second drafts when they rewrite the past on selected anniversaries and on other occasions. Collective memory that uniquely outlasts individual lifespans may make these second rough drafts influential for audience members who did not live through the event because it "creates a world they never experienced." Thus, she maintains, the media "are unique in their ability to reach huge communities simultaneously," and "are extremely important in the construction and maintenance of national collective memory in the 20th century U.S." She then indicates a condition that may apply directly to the case of *The Times* and the Bikinians or Operation Crossroads veterans: anniversary journalism "impacts whether we remember our past at all."<sup>8</sup> Or as the Czech writer Milan Kundera has noted, "The struggle of man against power is the struggle of memory against forgetting."<sup>9</sup>

*The Times* articles on the two-piece bikini, while forgetting the Bikinians or Operations Crossroads that inspired it, warped readers' perceptions of reality on that 50th anniversary day in 1996. But even without the anniversary to serve as its news peg, *The Times* had on many other occasions privileged the newsworthiness of the split-level swimsuit while obscuring the nuclear legacy of Bikini Atoll.

## "The Bikini Is the Greatest Thing Since the Atom Bomb": 24 Years of *Times* Coverage of *Bikini*

*Times* articles that distorted readers' memories to remember the bombshell swimsuit and to forget the horrific nuclear weapons tests at Bikini Atoll and their legacy had been occurring cumulatively and regularly over the past 24 years, based on a search and study of

the Nexis computerized database and *The Times* online archive containing the full text of *Times* articles in the 24 years from June 1, 1980 to January 15, 2004.

*The Times* published the word *bikini*<sup>10</sup> in at least 1,539 articles during this period. And 1,421 of these 1,539 articles—or 92.3 percent—reported on Reard’s bikini and the social revolution it precipitated, thus obscuring the legacy of the U.S. Pacific tests. Twice during this period *The Times* quoted Vogue’s ex-editor Diana Vreeland: “The bikini is the greatest thing since the atom bomb.”<sup>11</sup> At *The Times*, news is no match for fashion.

Significantly, more recently, from June 2, 2000, only two *Times* articles in the last three-plus years mentioned Bikini Atoll or Island or its people—and then only in passing, one giving historical data on the nuclear tests there and one linking it to an exhibit on the atomic age held at the Brooklyn Museum of Art.<sup>12</sup> The 118 *Times* articles—a mere 7.7 percent—mentioning the atoll and the tortured history of its inhabitants serve as an insightful tracer of the news values, biases, practices and presuppositions of *The Times* news staff and executives.

Amidst the distractions of the two-piece bikini, *The Times* staff devoted proportionately far fewer resources and articles to covering the real Bikinians and the legacy of the epoch-making events that had made them the first nuclear nomads in 1946 and that has exiled them to this day because of the radioactivity remaining from tests launched from or near their homelands. And the trend is toward fewer articles in recent years.

Of the 118 *Times* articles mentioning *Bikini* over 24 years beginning June 1, 1980 that related to the legacy of U.S. nuclear weapons testing, 37 of them—or 31 percent—may be categorized as Islanders’ ways of resistance. Unlike *The Times* practice of rendering them nearly invisible during the weapons-testing period, the Bikinians, beginning in the 1980s, seemed newsworthy in the newspaper because they were resisting U.S. policies and threatening U.S. strategic interest or global image-making.

These five ways of resistance by Bikinians were deemed newsworthy in *The Times*:

- their pleas for a return to their homeland and for a cleanup of radioactive contamination essential to permit that return (14 articles),

- tough bargaining in negotiations leading to the 1986 Compact of Free Association (9 articles),
- lawsuits (7 articles),
- the Nuclear-Free Pacific movement in 1982 (4 articles),
- postage stamps (3 articles).

These five ways sometimes overlapped and reinforced each other and were aided by numerous other factors, including insensitive U.S. policies.

On the returning home theme, *The Times* stories began in the 1980s, to give more extensive and sympathetic treatment to the Bikinians and their plight. The pleas of the Bikinians for returning to their ancestral homelands, and a cleanup of the radioactivity that would enable them to do so, became a consistent theme that earned the Bikinians news space in 14 *Times* articles from 1980-2004. Three of these *Times* stories focused on Islanders' petitions before the United Nations.<sup>13</sup> In 1988, *The Times* devoted Page 1 space and 1,356 words to a story datelined Bikini when about 30 island elders returned home in a ceremony to start a project to clean up their radioactive atoll.<sup>14</sup> However, 16 years after that article, Bikini Atoll remains uninhabitable and is likely to continue to be for at least a century. In two editorials that evoked paternalism, *The Times* urged compensating the Islanders, noting for the first time that "American colonialism is still alive and well—if generally forgotten—on 2,000 Micronesian islands strewn over 3 million square miles of the Pacific."<sup>15</sup> In the second editorial, to its credit, *The Times* admonished budget-cutters in the Reagan Administration and Congress, saying: "The Micronesians are not ordinary foreigners begging for handouts. As their 130,000 people emerge from a primitive economy and colonial dependency, their very survival depends on the dowry promised them."<sup>16</sup>

On the 1986 Compact of Free Association theme, *The Times* also devoted nine articles to the final stages of Islander-U.S. negotiations that led to a new political arrangement that gives to the United States strategic prerogatives in the Pacific in exchange for financial subsidies and federal assistance programs.<sup>17</sup> *Times* articles about these Compact negotiations mentioned only in passing the resistance of leaders of Bikini, Enewetak, and Rongelap Islands to releasing the U.S. government from its trusteeship obligations that

were supposed to protect their homelands and their peoples' health.<sup>18</sup> These so-called "atomic atolls," which also included Utrik Island, were then covered by a separate \$150 million trust fund designed to pay for all nuclear claims to those peoples. But as noted earlier, this trust fund needs more U.S. monies to compensate Marshallese for higher-than-expected health and property damages. Moreover, on December 31, 2003, U.S. funding ended for a more generalized health care program covering, in the mid-1990s about 11,000 individuals from these four "atomic atolls" out of a total population of about 54,000 Marshall Islanders.<sup>19</sup>

On the theme of lawsuits, *The Times* also devoted seven articles to this new strategy of Bikinian resistance: lawsuits. This strategy started in 1981 when U.S.-Marshallese negotiations began to abandon U.S. trusteeship obligations and to consider provisions that would terminate all pending lawsuits sparked by the weapons-testing program and would bar future claims. But these provisions were silent on cleaning up Bikini Atoll. The Bikinians got a lawyer. For the next six years lawsuits by them and others gave teeth to the demands of the "atomic atoll" residents for U.S. monies to pay for claims arising from nuclear testing; these lawsuits also earned them an increase in traditional public-affairs news coverage in *The Times*.<sup>20</sup>

On the Nuclear-Free Pacific theme, the Bikinians' lawsuit in 1981 seemed to catalyze region-wide resentments of Pacific Islanders into an anti-U.S. movement. In the first of four articles on what became known as the Nuclear-Free Pacific movement, *The Times*, in 1982, itemized these major regional resentments: the proposal by the Reagan Administration to dump in Pacific waters or on uninhabited islands low-level radioactive waste from U.S or Japanese power plants, disputes over tuna fishing rights and terms for use of the Kwajalein missile test range, U.S. rejection of the Law of the Sea Treaty that regulated future seabed mining, and bans by some Island states for visits of U.S. Navy ships.<sup>21</sup> Two years later, *The Times* detailed a formal treaty declaring the region a "nuclear-free zone" that had been adopted by the South Pacific Forum, an organization of 12 island groups, New Zealand and Australia.<sup>22</sup>

On the postage-stamp theme, Bikini Island also appeared in *The Times* as part of another seemingly innocuous, but actually ingenious, resistance strategy. In the first of three articles, *The Times*,



in 1984 reported that the Republic of Marshall Islands (RMI), to display its newly won independence, began to issue its own postage stamps and to withdraw all 20-cent U.S. stamps that had been in use. RMI's first and second 7-color issues depicted cultural motifs such as a navigational stick-chart. But a *Times* story noted that the third issue of stamps marked the 40th anniversary of the Able shot on Bikini Atoll and publicized the plight of the Bikinians as nuclear nomads. *The Times* reported that the stamps contrasted the life of the Bikinians before and after the 1946 nuclear tests, depicted one atomic shot and illustrated the results of another—the smash-up of the *Saratoga*, once the world's largest aircraft carrier that had survived two torpedo attacks and five kamikaze runs but that now lay at the bottom of the sea.<sup>23</sup> Through these colorful postage stamps, Bikini's gruesome history was distributed pictorially around the world, courtesy of the U.S. postal agency that continued to move the islanders' mail.

Besides *Times* articles on Islander ways of resistance, the term *Bikini* also fleetingly appeared in 81 of the 118 articles that related to the legacy of U.S. Pacific nuclear weapons tests. These 79 articles covered topics ranging from historical data, references in books, Islander lifestyle, travel/tourism, atomic veterans or victims and obituaries.

Throughout the 24-year period *The Times*, in 13 articles, discussed the legacy of the nuclear tests in such ways as reviewing documentaries ("Radio Bikini" or "Half Life") and by discussing snippets of other works ("Atomic Cafe"). Books touching on the nuclear-weapons era were also discussed or reviewed in 13 *Times* articles.<sup>24</sup> Eight *Times* articles dealt with the Bikinians and their lifestyle.<sup>25</sup>

### Portraying the Bikinians as "Homeless Millionaires"

The longest *Times* article of 6,697 words was headlined "Bikini's Silver Lining." It carried a paternalistic tone. Written for the Sunday Magazine, the article described two American advisers explaining to Bikinians options on how to redevelop their island once they returned there. The redevelopment hinges on monies earned from investments of \$185 million in trust funds and other payments made by the U.S. government to sustain them and three other island groups exiled from their self-sufficient lifestyle at home

because of the nuclear weapons tests. "The Bikinians may be homeless still, but they are at least homeless millionaires," Jeffrey Davis of San Francisco wrote in exaggerated style about them as individuals. The Bikinians are described as yawning while alternative redevelopment or income-generating schemes are ticked off: a resort for divers, a dumpsite for nuclear waste or even a launch site for ballistic missiles. But their trust funds are insufficient to pay for cleaning up and rehabilitating their homeland. The Bikinians are portrayed as subordinate to their U.S. advisers in status and intelligence and as rollicking through the good life made possible by dole-outs of U.S. funds. One travel agent's quotation in the story seemed to dredge up images of scientific racism: "These are cute little brown people. Don't get me wrong: I like them. But they've been offered a tremendous amount of money to do this. They just need to be shown how to spend it."<sup>26</sup> The quotation, which was unnecessary, seems to violate journalistic conventions of the 1990s.<sup>27</sup> Even while Bikini Island was too contaminated for resettlement, *The Times* glamorized it in four articles that focused on travel and tourism.<sup>28</sup>

Themes in *Times* coverage moved from "Brown People" to vets. Articles in *The Times* about Bikinians' resistance in U.S. courtrooms were paralleled and bolstered by other stories reporting on legal actions taken by U.S. veterans who claimed their service at Pacific nuclear weapons test sites had caused their cancers and other illnesses. Not since the uproar caused by the powdering of the *Lucky Dragon* crew by radioactive fallout from the Bravo shot in 1954 had the effects of weapons-test radiation been so vividly exposed to the U.S. public. Significantly now, the disregard of the veterans by the very government for which they had fought came to light in *The Times*. Now also their narratives of the effects of nuclear weapons radiation could be captured in documentaries and shown on television.

Often a victim of nuclear-weapons radiation was a hometown boy like John Smitherman, a Navy veteran who had experienced two atomic bomb tests at Bikini Atoll and then suffered health problems that resulted in amputation of both of his legs. Smitherman became newsworthy in *The Times* in 1982 because of a statement to the U.S. House by then Representative Albert Gore Jr. of Tennessee, thanking a foundation in Hiroshima for providing treatment for Smitherman after he was refused medical help from the

National Naval Medical Center and six times refused disability pay by the Veterans Administration.<sup>29</sup> In a book review, *The Times* again noted Smitherman and his interview that was included in Studs Terkel's, "*The Good War*". However, *The Times* review omitted Smitherman's insightful disclosure to Terkel that military participants in test operations in the Pacific were required to sign agreements that they would refrain from discussing their mission, thus explaining how the U.S. government had kept secret for so long its neglect of the servicemen who had fought for it.<sup>30</sup> *The Times* also omitted Smitherman's comment that he and other participants in Operation Crossroads "were all used as guinea pigs."<sup>31</sup>

John Smitherman died on September 11, 1983. No obituary was written about him in *The Times*. But the term *Bikini* did appear in 29 *Times* obituaries of others whose lives had been touched by that Atoll. None of the obituaries was of Bikinians or Enewetakese or Rongelapese or women. The 29 on the obituary list included U.S. scientific, medical, technical and military personnel, journalists, bikini-creator Louis Reard and Godzilla-maker Tomoyuki Tanaka. In some cases the cause of death was unexplained or vague. In a few cases cancer was cited as the cause of death.

In one obituary, *The Times* overlooked its earlier, deficient news coverage of radiation. In the 1981 obituary of Dr. Stafford Warren, *The Times* credited the medical officer in charge of radiation safety at the first Bikini Atoll tests as one who had early on recognized the dangers of radioactive fallout.<sup>32</sup> Yet on the day before Operation Crossroads, *The Times* had published Warren's criticism of popular writers, such as journalists, for exaggerating the dangers of radiation resulting from the first atomic bombs detonated on Hiroshima and Nagasaki. This criticism seemed to refer to Burchett's "atomic plague" article that U.S. officials had so soundly criticized at the time, as discussed in Chapter 3.<sup>33</sup> A more honest appraisal at that time by Warren and publicity about radioactivity in *The Times* might have alerted the military's top echelon in Washington to mandate stricter safety standards during and after the first Bikini Atoll tests.

## Missing the Islanders' "Priceless" Suffering: 24 Years of *Times* Coverage of Enewetak

Like the Bikinians, the 142 Enewetakese became nuclear nomads for decades following their removal, in 1947, from their homeland to pave the way for its being transformed into a U.S. proving ground for H-bomb development. Like the Bikinians, they are also a case study in U.S. bureaucratic incompetence and neglect, according to an anthropologist who lived with them during several years of their exile,<sup>34</sup> where, as detailed in the introduction, they often faced near starvation and real hardship in a desolate environment.<sup>35</sup>

The Enewetakese also serve as a case study of nuclear news neglect in *The Times*. Unlike the Bikinians, the Enewetakese were given no fanfare in *The Times* when they were exiled from their homeland for 33 years to the desolate Ujelang Atoll. This news neglect in *The Times* continued in recent decades. For the 24 years beginning June 1, 1980, *Enewetak* was mentioned in 54 *Times* articles, according to the full-text search conducted on the Nexis database and *The Times* online archives. Of the 54 articles, 23 overlapped with those discussed above about the Bikinians, mostly focusing on the two groups' collaborative ways of resistance such as simultaneous appeals made at and to the U.N. Significantly, during the most recent three-plus years, *The Times* mentioned Enewetak in only one article and that focused on space exploration in which a Pacific elder's quote about men going to the moon—and returning—was used as a two-paragraph, feature-type lead.<sup>36</sup>

Of the 31 articles mentioning Enewetak alone, only 11 dealt with the Islanders and the legacy of the U.S. nuclear tests. All 11 were articles of only several paragraphs, tucked in the back pages; they exemplified *The Times* newspaper-of-record function, but provided the skimpiest of significance or context to illuminate for readers the legacy of U.S. Pacific nuclear weapons tests. Two articles dealt with a \$500 million lawsuit the Enewetakese filed against the U.S. government in 1982, alleging neglect, broken promises and violation of responsibilities under the U.N. Trusteeship.<sup>37</sup> Another article of 181 words told of the Interior Department's acknowledgment, in 1985, that six of Enewetak's uninhabited islands were contaminated with radioactive cesium, which might be absorbed by coconut trees essential for Islanders' livelihood.<sup>38</sup> One letter to the

editor reminded readers that Enewetak had served as a test site for large U.S. strategic weapons in contrast to tactical weapons tests in Nevada and that since 1946 the Marshallese had experienced a 75 percent increase in stillbirths and birth defects.<sup>39</sup> In three other writings, the Island was mentioned only in passing in articles or book reviews about Edward Teller, the nuclear physicist largely credited with developing the hydrogen bomb for which Enewetak served as the prime launch site.<sup>40</sup> Another four articles discussed Enewetak's pre-nuclear era of history, three of them written on the 40th anniversary of the U.S. invasion of Saipan, the D-Day for the Pacific, for which Enewetak served as the nearest advanced base, 1,017 miles away.<sup>41</sup> The 19 remaining articles were obituaries of U.S. scientific, technical and military persons associated with tests at Enewetak and a report of an unsuccessful lawsuit filed against the U.S. government by a widow who maintained that her husband had died of cancer caused by exposure to debris from an Enewetak-based atomic bomb in the 1950s.<sup>42</sup>

In 1977, *The Times* covered the U.S.-organized festivities marking the return of 75 Enewetakese to the least radioactive Japtan island in their atoll, but only three of the 39 paragraphs described their earlier travails in exile.<sup>43</sup> From 1980 on, missing from *The Times* coverage was the end, for other Enewetakese, of their 33 years of exile on Ujelang, including some years of near-starvation, and the return of about 900 of them to their homeland, where they live on only 42.6 percent of their atoll. In addition, upon their return, the Enewetakese were disappointed to find their home atoll had been changed by the nuclear testing; historical and cultural landmarks or sacred reefs had vanished. As an anthropologist who had lived with them noted, the Enewetakese were dismayed by the "foreign-ness of their home" so that "they can not be at home in the very land that is their home because the contours of the land are no longer the same" and local products they used for making such items as canoes and sleeping mats are missing. As discussed earlier, eight percent of their atoll was vaporized during the weapons tests; 49.4 percent is too laced with plutonium and other deadly radioactive elements to be inhabitable, possibly for centuries. An additional 700 or so Enewetakese live elsewhere.<sup>44</sup>

Also missing from later *Times* coverage was the announcement in May 2000 that the Enewetakese had been awarded \$341 million

in claims for damage to property, the first of several such claims against the U.S. government settled by the Nuclear Claims Tribunal of the Republic of the Marshall Islands, which described the islanders' suffering as "priceless."<sup>45</sup> However, as discussed below, this Tribunal has insufficient funds to pay more than a fraction of this award, one reason the Marshallese government petitioned Congress for more compensation.

## From One-Time Eden to "Forbidden Territory": 24 Years of *Times* Coverage of Rongelap

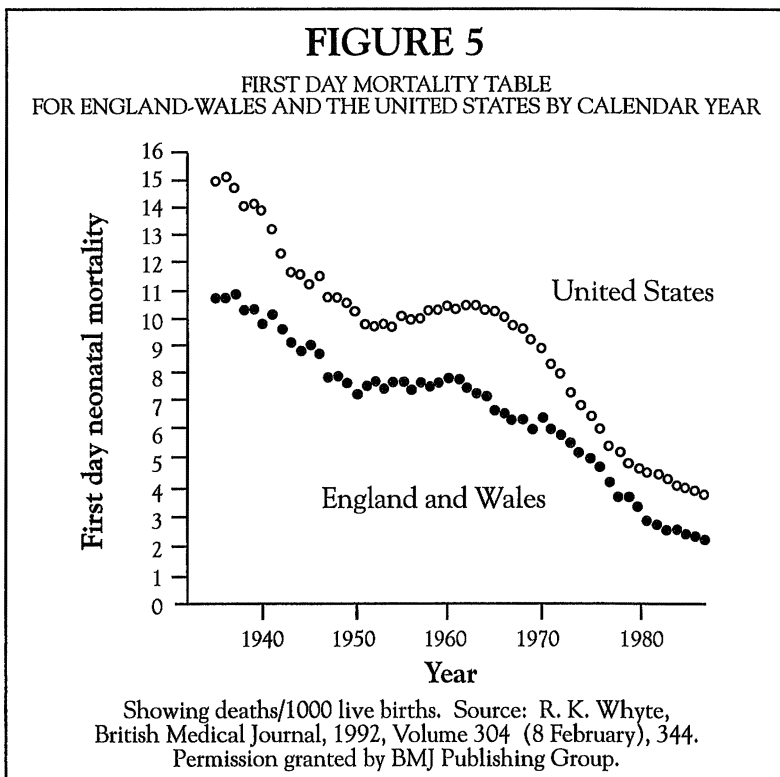
Today's medical and environmental literature describes extensively the significance of those islanders who were powdered by the radioactive fallout of the 15-megaton Bravo shot.<sup>46</sup> Since that misfortune on March 1, 1954, these islanders have remained unique in the annals of medical and environmental literature focusing on radioactivity.<sup>47</sup> Because of their exposure to Bravo's radioactive fallout, 239 Rongelap and Utrik islanders were initially evacuated and 14 others were also exposed to high levels of radiation for a total of 253. As of 2003, more than half are dead.<sup>48</sup>

In the 24 years beginning in 1980, *Times* coverage devoted to the health of Bravo-dusted islanders had barely improved from the near-invisibility given them during the 1954-62 post-Bravo years. Especially missing in *The Times* was coverage of the delayed effects of radiation-induced medical conditions suffered by Bravo's victims and of Congressional hearings in which stunning disclosures were made that Marshallese had been used as human radiation subjects without their consent, knowledge or benefit.

One medical question recurring during the later period related to the effects of U.S. Pacific atmospheric testing on the newborn and the stillborn during the period ending in 1962. As discussed in Chapter 9, Marshallese women suffered radiation-induced miscarriages and babies with defects at a high rate but this information was only belatedly made public by U.S. medical personnel and *The Times*. These Marshallese women may have been at the forefront of a worldwide phenomenon, as evidenced in a graph, displayed on the next page as Figure 5, that was published in a 1992 article in the *British Medical Journal*.

Figure 5 shows that in both U.S. and British populations, first-day mortality fell from 1935 to 1950. But then "an abrupt hold up" in the decline began and continued through the mid-1960s, researcher R.K. Whyte noted. He indicated that the hump-up in the lines during the mid-1960s showing increased mortality in both geographic areas suggests a possible correlation with exposure to radioactive elements arising from atmospheric nuclear testing.<sup>49</sup> This study was unreported in *The Times*.

From 1980 to 2004, *The Times* published only six references scattered in long articles, about the adverse health effects suffered by the Rongelap Islanders. Despite their serving as a unique radiological yardstick for the rest of the world's population, the Bravo shot victims from Rongelap have received less coverage in *The Times* in the past 24 years than Bikinians and Enewetakese who escaped such concentrated fallout. Missing from *The Times* are articles on the numbers of Bravo victims and other exposed islanders who are sick or have died from 35 kinds of radiation-induced cancer and other medical conditions in addition to thyroid abnormalities, as is discussed below.



*The Times* published only 13 stories containing the word *Rongelap* from June 1, 1980 to January 15, 2004, according to a full-text, keyword search of the Nexis database and *The Times* online archive. Only one of these 13 was published in the last three-plus years and that one mentioned only in passing historical data on the nuclear testing in both Rongelap and Bikini.

Five of the 13 articles that *The Times* deemed newsworthy related to Rongelapese ways of resistance. In 1984, at a United Nations Trusteeship Council session, *The Times* mentioned in passing that representatives of Rongelap Island petitioned for the United States to again evacuate their people from their homeland that they thought was unsafe because of radioactivity. Missing from *The Times* account was the disclosure that two years earlier a 1982 U.S. Department of Energy report indicated that, as researchers revealed, some parts of Rongelap inhabited by residents “were as contaminated as those forbidden to humans.”<sup>50</sup> Two days after the U.N. plea, the U.S. government refused to evacuate the Rongelapese. Thus, *The Times* reported in 1985, 70 islanders were removed by the Greenpeace environmental organization and taken to Majetto Island, which was 100 miles away; 250 more were evacuated soon afterward.<sup>51</sup> Other *Times* items included a follow-up letter to the editor elaborating on Greenpeace and Pacific nuclear testing written by a former Peace Corps member in the Marshall Islands,<sup>52</sup> an article on the Rongelap Islanders’ opposition to the 1986 Compact of Free Association that had been approved by a nationwide plebiscite of voters throughout the Marshall Island archipelago<sup>53</sup> and a mention at the top of a regular *Times* column about the issuance of postage stamps spotlighting the fifth anniversary of the effective date of the constitution of the Marshall Islands.<sup>54</sup> Unreported in *The Times* was a 1988 Congressionally-authorized study and subsequent official testimony recommending that part of Rongelap Atoll be considered “forbidden territory” and that the remaining part would be safe only if inhabitants ate imported food for the next thirty to fifty years.<sup>55</sup>

No *Times* initiative to cover the Rongelapese approached that of the 6,697-word magazine piece published about the Bikinians. But tucked into the middle of six *Times* articles over the 24-year period were brief mentions of the Rongelapese health problems linked to U.S. Pacific nuclear testing. These mentions included:



- statements that Rongelapese stillbirths and miscarriages were more than twice the rate of unexposed women and that physically deformed children and death resulted from radiation disease;<sup>56</sup>
- statistics that more than 90 percent of the children who were under 12 years of age when the Bravo bomb exploded developed thyroid tumors within the decade;<sup>57</sup>
- statistics, as of 1986, that of 68 people on Rongelap Island exposed to the Bravo shot, 24 had developed thyroid nodules 22 years later, of which four were cancerous;<sup>58</sup>
- data in 1990 from the Energy Department that Rongelap residents had abnormal white-blood counts and high levels of plutonium in their urine;<sup>59</sup>
- data, as of 1994, that 40 years after the Bravo shot, the world's highest incidence rate of thyroid cancers and growths was among the Marshallese population;<sup>60</sup>
- a proposal that standards for plutonium set for inhabiting Rongelap Atoll be used as criteria around plutonium production sites on the U.S. mainland.<sup>61</sup>

In sum, these short references, buried in long articles, failed to give enough prominence to this health information so that readers could visualize and grasp the meaning of the effects of radioactive fallout on humans resulting from the U.S. Pacific nuclear weapons tests.

In addition to news items, *The Times* devoted space to reviews of a 1988 book and a 1986 documentary that focused on Rongelap, both works being produced by non-Americans, a Britisher and an Australian. The two reviews averaged 866 words in length.<sup>62</sup> Both works received mixed comments from *The Times*.

*Times* reviewer Herbert Mitgang described the book, *A Day of Two Suns*, as factually accurate. He quoted from British writer Jane Dibblin's interviews with 10 women, who made feminist or anti-military statements. But he ignored Dibblin's quotes from Rongelap women blaming the nuclear tests for the "jellyfish babies" they miscarried. *The Times* also ignored Dibblin's charge that doctors from the Brookhaven National Laboratory, who annually examined the Rongelapese, had deliberately avoided investigating the stillborn and neonatal deaths and that no interpreter was provided so that medical personnel could even ask questions of the island women. Mitgang criticized the book for its hortatory tone and shrill language

and assessed that Dibblin's "lapses into self-righteousness do not always help her cause."<sup>63</sup> Yet, Dibblin's material could logically have sparked a *Times* investigation into the medical monitoring of Rongelapese conducted for decades by Brookhaven National Laboratory doctors.

On the documentary, *Times* reviewer Walter Goodman considered *Half Life* as a powerful means to tug emotions of U.S. viewers and he quoted several Islanders who did just that. But Goodman asserted that "obtrusive omissions" in *Half Life* included failure to present such evidence as the number of pre-Bravo stillbirths that could contrast with the moving comments of an Island woman who described her grotesque unborn on camera. Goodman also criticized the Australian filmmaker of *Half Life*, Dennis O'Rourke, for making "questionable accusations of culpability" and for charging that the people of Rongelap were used as "guinea pigs" to serve U.S. purposes.<sup>64</sup>

## **"Might As Well Last Forever": 24 Years of *Times* Coverage of Plutonium's Half Life**

*The Times* published 2,672 articles containing the word *plutonium* during the 24 years beginning June 1, 1980, based on a search made of the Nexis database and *The Times* online archive. Throughout the 24 years, as one *Times* article asserted, plutonium remained "a bulwark of the cold war."<sup>65</sup> Of the 2,672 *Times* articles on plutonium only 31 (1.16 percent) of these contained the term *half life*.<sup>66</sup> That percentage was barely more than the 1946-62 Pacific testing period when seven-tenths of one percent of *The Times* articles on plutonium (or one out of 128 articles) included a mention of its 24,000-year half life. Hence plutonium's 500,000 years of radioactivity was un-reported.

None of *The Times* articles since 1980 mentioned the half life of plutonium in the Pacific region, where the most powerful weapons containing it had been tested. The significance of the lack of specificity and context in most *Times* articles on plutonium was captured in one article published in March 2000. That article noted that U.S. officials, by making the idea of contaminated ground water more specific and less abstract, had sharpened public worries about radioactive dangers.<sup>67</sup>

Seventeen of these 31 articles from 1980-2004 discussed pluto-

nium's *half life*. Other articles linked *half life* with other radioactive elements. Several articles discussing the half life of plutonium added the key fact that plutonium would remain radioactively dangerous for 250,000 years. It is radioactive for another 250,000 years. One added that, from a human standpoint, radioactive materials will live so long that they "might as well last forever."<sup>68</sup> The half life of plutonium was detailed midway through several *Times* articles because plutonium that remained radioactive for thousands of years was to be stored in steel canisters designed to last for only decades.<sup>69</sup>

The effects on human health of radioactive elements and their half lives were seldom made explicit for readers of *Times* articles, beyond the occasional use of descriptors of like *deadly* or *lethal*. One exception, however, came in an article that described plutonium as the "most toxic substance on earth because minuscule grains can cause cancer."<sup>70</sup> The words *plutonium* or *half life* were generally sprinkled throughout long articles, rather than serving as the focus or the first three paragraphs comprising the lead.

The 31 articles containing *plutonium* and *half life* fall into these conspicuous groups: 11 short editorial-page letters and notes,<sup>71</sup> 17 long *Times*-generated articles of more than 1,000 words and three shorter articles.

Two long articles are worth noting. In a 3,327-word special report, *The Times* evidenced a willingness to devote critical comment and to commit sizable resources to the Soviet Union's catastrophic mistakes in handling nuclear waste.<sup>72</sup> Yet *The Times* provides no comparable scrutiny of U.S. mistakes on the legacy of Pacific nuclear weapons.

A second *Times* article described in 1997 the 50th anniversary of Brookhaven National Laboratory on Long Island. Medical personnel there had collected much of the data on the Rongelapese following the Bravo shot but this *Times* article omitted mention of them. It noted that Brookhaven, even though it had done little work with plutonium, was nonetheless beset by so many problems that, instead of celebrating its 50th anniversary, it was conducting a massive cleanup costing \$300 million of the U.S. government's Superfund monies.<sup>73</sup>

After 1994, the Department of Energy began disclosing more information about plutonium during the previous half-century. It

revealed that during the Cold War the government operated 14 plutonium-production reactors, creating plutonium “for its tens of thousands of nuclear warheads.” DOE acknowledged that early in the nuclear age—by 1948—some scientists had warned that “disposal of contaminated waste in present quantities and by present methods, if continued for decades, presents the gravest of problems.” But the scientists’ warnings were largely ignored amidst the nuclear arms race with the Soviets. Now, the DOE explained:

The Cold War is over, but its legacy remains. Solving the waste-management and contamination problems of this legacy will take many decades and hundreds of billions of dollars. Even then the task will not be fully completed. Many sites and facilities will need continued guarding and monitoring.

Costs since 1996, and far into the future, for the dismantling of nuclear weapons and storing or disposing of the half century of toxic and radioactive wastes are estimated at \$320 billion, according to Stephen I. Schwartz, who headed a Brookings Institution project that audited the atomic era. Adding these future costs to funding since 1940 to produce the U.S. nuclear arsenal brings the total estimated amount spent to \$5.5 trillion, or about 11 percent of the federal budget for the 56-year period.<sup>74</sup>

**1990s DOE STATEMENT ON  
INFORMED DEBATE ABOUT  
“BEING AWASH IN PLUTONIUM”**

The United States produced and extracted more than 100 metric tons of plutonium for nuclear weapons during the Cold War; if the plutonium is not in operational warheads, it is currently stored at facilities across the country.... In February 1988, then Secretary of Energy John Herrington told a Congressional subcommittee that we were “awash in plutonium.” In 1989, a National Academy of Science panel, using classified data, concluded that additional plutonium production was unnecessary. Now, however, the plutonium surplus continues to increase as each day more plutonium is removed from dismantled weapons at the Pantex Plant in the Texas panhandle and stored in World War II bunkers, at a rate of about 2,000 warheads per year.

The fate of all U.S. surplus plutonium must be determined publicly. Meaningful decisions about plutonium disposition can only be made through informed public debate, which has only recently begun with the release of vital information.<sup>75</sup>

## Congressional and Tribunal News Unfit for *The Times*

One visible type of resistance by or about the Marshall Islanders received no *Times* coverage during this period—their voices and plight addressed to and in Congress. As noted earlier, in a 1980 report titled "The Forgotten Guinea Pigs," a House oversight subcommittee—in only a footnote—included in its conclusion the Pacific Islanders entrusted to U.S. care: "The greatest irony of our atmospheric nuclear testing program is that the only victims of U.S. nuclear arms since World War II have been our own people."

*The Times* carried a story on the committee report and the story carried this quote. But *The Times* story omitted the footnoted mention given by Congress to the Pacific Islanders. Even the perfunctory Congressional inclusion of the Pacific Islanders amongst "The Forgotten Guinea Pigs" was forgotten by *The Times*.

Suppressing information on the U.S. government's suppression, *The Times* also omitted from that article the subcommittee's findings that shed light on how deceptive and manipulative the government's policies had been during the testing period, stating:

- that all evidence suggesting radiation was having harmful effects on people or animals "was not only disregarded but actually suppressed" by the U.S. government,
- that the U.S. government had refused to collect data, as proposed by the U.S. Public Health Service, that would have confirmed the adverse effects of radiation on people and animals.<sup>76</sup>

Even if editorial factors for that day's edition of *The Times* justified these omissions about official secrecy, the newspaper's enterprise stories and "News of the Week in Review" backgrounders could have used this authoritative Congressional report to alert readers about how their government had been keeping them uninformed and potentially unprotected.

## Withholding Their Own Medical Records from the Marshallese

*The Times*, during this 24-year period, also provided no coverage of other dramatic "guinea pig" allegations and U.S. maladminis-

tration voiced in five key Congressional hearings. As late as 1996, *The Times* elected to exclude news of a Congressional hearing in which the Bikinians' views and plight were detailed. That hearing flashed back to 1969 when the Bikinians had returned home after U.S. officials assured them their atoll was safe.<sup>77</sup> But before they were again removed in 1978, the Bikinians had probably eaten larger amounts of radiation than any other population. In 1996, *The Times* excluded the news of this sad experience told by the Bikinians' legal counsel, Jonathan Weisgall, to the Senate Committee on Governmental Affairs. He related that the islanders believe they were moved back to Bikini in 1969 to serve as "human guinea pigs to measure the long-term effects of low-level radiation." Bikinians are now urging the U.S. government to conduct a radiological cleanup so that they can return home safely and permanently.<sup>78</sup>

In 1984, another dramatic "guinea pig" argument made in an official, public session of Congress—the type the press is often considered duty-bound to cover—received no mention in *The Times*. On May 4, 1984, Weisgall told a U.S. House subcommittee that "the crime" of the 1954 Bravo shot is the U.S. government knew in advance of the shot that the winds were headed in the direction that would contaminate the neighboring atolls, adding: "The explanation about the unexpected shift is a lie."<sup>79</sup> In the same hearing, former magistrate of Rongelap Atoll, John Anjain, reminded the committee of the importance of the islanders to the accumulation of U.S. medical knowledge over decades. He told House members of the findings of the Brookhaven medical team that had regularly examined the islanders: "The medical findings provide the *only* knowledge about the effects of radioactive fallout on human beings from detonation of nuclear devices."<sup>80</sup> A decade later, this "guinea pig" issue was examined by a special panel appointed by President William Clinton to investigate the stunning disclosures that the U.S. government, from the 1940s through the 1970s, had been conducting radiation experiments on human beings without their consent, knowledge or benefit. Although unreported in *The Times* in October 1995, the Advisory Committee on Human Radiation Experiments "found no evidence that the initial exposure of the Rongelapese or their later relocation constituted a deliberate human experiment." However, that committee had not studied all the gov-

ernment documents being made available beginning in 1994. Had the committee found that a deliberate human experiment had been conducted, Marshallese claims of "changed circumstances" might be considerably strengthened as they argue for more compensation from Congress and the Bush Administration. But the advisory committee did urge more islanders be included in a broader array of U.S. medical programs that also involved Marshallese in the discussion and design phase of them. Also unreported in *The Times* was the committee's finding of the islanders' maltreatment by the U.S. government. For example, the committee noted the difficulties Marshallese have had in obtaining information related to their own health, adding that "their own medical records are only now being made readily available to them."<sup>81</sup>

### Rongelapese as Subjects in Human Radiation Experiments

In 1996, Marshallese officials told a Senate committee they had difficulty in securing information or increased medical support from the U.S. government, as was discussed in Chapter 9.<sup>82</sup> In news from this Senate hearing that *The Times* deemed unfit to print, RMI Foreign Minister Phillip Muller produced fresh evidence that islanders had indeed been used as subjects in human radiation experiments—based on documents from the U.S. Department of Energy that a Presidential Advisory Committee on Human Radiation Experiments had not considered in October 1995. Muller told the Senate committee that residents of Rongelap and Enewetak atolls were used in human radiation experiments involving radioactive tritiated water and chromium-51 injections. These experiments were apart from longstanding "guinea pig" allegations based on the delayed evacuation of the islanders in 1954 who had received fallout from the Bravo shot or islanders' complaints about the annual examinations conducted by medical personnel from Brookhaven National Laboratory. Muller also said that the agency had withheld critical information about the adverse effects of U.S. weapons tests from the U.S. Congress and Marshallese officials and that medical research without the consent of Marshallese patients continues today. Muller also stated that the U.S. health care programs for the

Marshallese need to address all radiation-related illnesses such as reproductive problems, cataracts and liver disease and not simply the illnesses DOE narrowly focuses on, such as thyroid disease. The foreign minister bluntly told the Senators that this callous disregard for the Marshallese was rooted in an official U.S. attitude that these people were little better than laboratory animals.<sup>83</sup>

In the same hearing, Muller's comments were amplified by those of Marshallese Senator Tony deBrum, who told of U.S. doctors 50 years ago pulling healthy as well as unhealthy teeth of islanders without their knowledge or consent for use in cesium, strontium or plutonium studies; even today islanders are unsure whether they are being cared for or studied by U.S. medical personnel.

Others in the hearing complained about the disproportionate number of human radiation experiments that had been conducted on people of color, poor white Americans and vulnerable populations such as persons in prisons, according to the testimony of A.C. Byrd of the Task Force on Radiation and Human Rights.<sup>84</sup>

In 1999, Muller's allegations of human radiation experiments were confirmed by the Department of Energy, successor agency of the Atomic Energy Commission. DOE sent a letter to Sheiko Eknilang and others telling them they had received injections of radioactive chromium-51 and had drunk tritiated water as tests for anemia conducted between 1961-63 by Brookhaven National Laboratory doctors. On an attached information sheet, the DOE said 34 Rongelapese and 20 Caucasians had received these substances in amounts that were well within the maximum permissible limits in tests it described as clinical and "not experimental or research-related" under procedures that had been approved and used by medical specialists in the 1950s.

As a Rongelap woman who had experienced the 1954 Bravo shot, the letter continued, Ms. Eknilang could get more information from the DOE doctor assigned to routinely examine her. Yet, as detailed in Chapter 9, a U.S. doctor in the days after Bravo had recommended that women like Ms. Eknilang, as well as other islanders exposed to Bravo's fallout, be given no additional radiation exposure over their lifetimes except for therapeutic purposes. Omitted from the information in DOE's letter is any suggestion that the tests had been administered with her knowledge or consent or that they were



of medical value to her—these were official standards that were supposed to be followed at that time, based on U.S. official guidelines and medical practices. DOE said that she had received this information because the improved medical record system had for the first time made it possible to identify specific persons who received the tests and because “you have a right to know this information.”<sup>85</sup>

Thus, three decades after the fact, the government confirmed that it had included Rongelapese under the umbrella of its extensive biological program. Its worst known cases included x-raying the male organs of Oregon and Washington state prisoners, feeding radioactive fallout materials to university students, giving small doses of radioactive iron to pregnant women and feeding Quaker Oats laced with radioactive traces of iron and calcium to supposedly mentally retarded boys in a Massachusetts state home. For the most unethical tests, U.S. doctors working for or under contract to the government used captive or vulnerable populations such as the poor, prisoners, children or U.S. servicemen. According to researchers Arjun Makhijani and Stephen I. Schwartz, “From the 1940s into the 1970s, more than 23,000 people were subjected to 1,400 different radiation experiments, many without informed consent.”<sup>86</sup>

Another dramatic Congressional hearing excluded from *Times* coverage<sup>87</sup> occurred near the date of the 40th anniversary of the 1954 Bravo shot. On February 24, 1994, a U.S. House oversight hearing found that many facts of that devastating test were still hidden by government secrecy from Congress, from the American people and from the Rongelap Islanders, who had helped to illuminate to the world the dangers of radioactive fallout in 1954.<sup>88</sup> This secrecy prevented the Marshallese from verifying that many more of them had suffered more damages than those that the U.S. government acknowledged, thus excluding them from U.S. compensation for numerous diseases.<sup>89</sup> If *The Times* had covered this hearing, it might have included the bitter description made by Johnsay Riklon, senator from Rongelap to the Marshall Islands Nitijela [legislature], that “we literally have been victims for four decades.”<sup>90</sup>

The victimization that Riklon asserted has been translated into dollars that are disbursed by the Nuclear Claims Tribunal in the Republic of the Marshall Islands, a panel established through formal agreement between the U.S. and Marshallese governments to decide

claims arising from the nuclear weapons tests that began in 1946. The chair of this tribunal, Oscar deBrum, appeared before Congress on May 11, 1999, to detail the insufficiency of funds, but *The Times* also omitted news of that official session. DeBrum told the House Committee on Resources that U.S. secrecy had prevented the Tribunal from receiving information it requested from the U.S. government about the levels of radiation to which those living on the atolls had been exposed during the testing period.<sup>91</sup>

### **\$125,000 for Various Cancers**

The Nuclear Claims Tribunal's regulations summarizing "presumed medical conditions" translate injuries arising from U.S. Pacific nuclear weapons tests into dollar amounts. Victims are awarded funds if they suffered from one of 35 medical conditions that are "irrebutably presumed" to be the result of the nuclear weapons tests.<sup>92</sup>

As shown on the following page,<sup>93</sup> those suffering from leukemia are awarded \$125,000, as are those with cancer of the esophagus, stomach, small intestine, pancreas or bone. Severe growth retardation due to thyroid damage is allocated \$100,000. The Tribunal as of December 31, 2003, has paid \$83 million to 1,865 awardees. But because the Tribunal's trust fund is unable to cover all of its obligations, 46 percent of these islanders have died before being fully paid for their nuclear-related injuries and millions of dollars in property awards are unpaid.

A recent omission from *The Times* coverage was the announcement in May 2000 that the Enewetak people had received the first award for many of the property damage claims made against the U.S. government to be decided by the Nuclear Claims Tribunal, as noted above.<sup>94</sup> Since then, the Tribunal has awarded the people of Enewetak and of Bikini \$1.02 billion for property damages, radiological cleanup, loss of use and hardship and suffering. But, as of the end of 2003, only a fraction of one percent of these monies have actually been paid because of insufficient trust funds. Major class-action property damage claims for the peoples of Rongelap and Utrik are pending before the Tribunal.<sup>95</sup>

Over the decades through 1998, the U.S. government has paid at least \$759 million as compensation to Marshall Islanders for damages they have suffered. This amount is 37 percent of all U.S. pay-

ments of \$2.05 billion to all victims of U.S. nuclear weapons testing.<sup>96</sup> But the amounts paid are small compared to those that were sought: about 5,000 claims seeking \$5.75 billion for radiation-related damages arising from U.S. Pacific nuclear weapons testing had been made against the U.S. government.<sup>97</sup>

### Marshall Islands Nuclear Claims Tribunal Summary of Presumed Medical Conditions Regulations

1.	Leukemia (other than chronic lymphocytic leukemia) .....	\$125,000
2.	Cancer of the thyroid	
	a. if recurrent or requires multiple surgical and/or ablation .....	\$75,000
	b. if non-recurrent or does not require multiple treatment .....	\$50,000
3.	Cancer of the breast	
	a. if recurrent or requires mastectomy .....	\$100,000
	b. if not recurrent or requires lumpectomy .....	\$75,000
4.	Cancer of the pharynx .....	\$100,000
5.	Cancer of the esophagus .....	\$125,000
6.	Cancer of the stomach .....	\$125,000
7.	Cancer of the small intestine .....	\$125,000
8.	Cancer of the pancreas .....	\$125,000
9.	Multiple myeloma .....	\$125,000
10.	Lymphomas (except Hodgkin's disease) .....	\$100,000
11.	Cancer of the bile ducts .....	\$125,000
12.	Cancer of the gall bladder .....	\$125,000
13.	Cancer of the liver (except if cirrhosis or hepatitis B is indicated) .....	\$125,000
14.	Cancer of the colon .....	\$75,000
15.	Cancer of the urinary tract, including the urinary bladder, renal pelves, ureter and urethra .....	\$75,000
16.	Tumors of the salivary gland	
	a. if malignant .....	\$50,000
	b. if benign and requiring surgery .....	\$37,500
	c. if benign and not requiring surgery .....	\$12,500
17.	Non-malignant thyroid nodular disease (unless limited to occult nodules)	
	a. if requiring total thyroidectomy .....	\$50,000
	b. if requiring partial thyroidectomy .....	\$37,500
	c. if not requiring thyroidectomy .....	\$12,500
18.	Cancer of the ovary .....	\$125,000
19.	Unexplained hypothyroidism (unless thyroiditis indicated) .....	\$37,500
20.	Severe growth retardation due to thyroid damage .....	\$100,000
21.	Unexplained bone marrow failure .....	\$125,000
22.	Meningioma .....	\$100,000
23.	Radiation sickness diagnosed between June 30, 1946 and August 18, 1958, inclusive .....	\$12,500
24.	Beta burns diagnosed between June 30, 1946 and August 18, 1958, inclusive .....	\$12,500
25.	Severe mental retardation (provided born between May and September 1954, inclusive, and mother was present on Rongelap or Utirik Atolls at any time in March 1954) .....	\$100,000
26.	Unexplained hyperparathyroidism .....	\$12,500
27.	Tumors of the parathyroid gland	
	a. if malignant .....	\$50,000
	b. if benign and requiring surgery .....	\$37,500
	c. if benign and not requiring surgery .....	\$12,500
28.	Bronchial cancer (including cancer of the lung and pulmonary system) ..	\$37,500
29.	Tumors of the brain, including schwannomas, excluding other benign neural tumors .....	\$125,000
30.	Cancer of the central nervous system .....	\$125,000
31.	Cancer of the kidney .....	\$75,000
32.	Cancer of the rectum .....	\$75,000
33.	Cancer of the cecum .....	\$75,000
34.	Non-melanoma skin cancer in individuals who were diagnosed as having suffered beta burns under number 24 above .....	\$37,500
35.	Cancer of the bone .....	\$125,000

As Oscar deBrum summed up his 1999 testimony, left unreported in *The Times*, “The people of the Marshall Islands have as much experience living, and dying, with radioactive contamination as any other population in the world.”<sup>98</sup> This Marshallese experience proved to be a great asset that helped to catapult the United States into its military superpower status during the Cold War and into its solitary supremacy today.

Unable to receive the just compensation that they feel is due them for their nuclear-related sacrifices, the Marshallese are turning to Congress for funding. Failing that, they may have to initiate new lawsuits in U.S. or even international courts for the just compensation they believe is owed to them by the world’s wealthiest and most powerful nation.<sup>99</sup>

Thus, as noted earlier, on September 11, 2000, the Marshallese government petitioned Congress and re-petitioned it two years later for more funding needed to pay for personal injury and property damages caused by the U.S. Pacific nuclear weapons testing program and to bolster the “manifestly inadequate” health care programs that had been promised to monitor and care for the affected islanders.<sup>100</sup> As of early 2004, Congress has taken no action. And *The Times* has left the story untold.

## Conclusion: *News Zero and the Next Rough Drafts of History*

“The past is not dead. It is not even past.”—William Faulkner

*T*imesman William L. Laurence returned on September 9, 1945 to the world’s first Ground Zero, the code name he revealed as the spot where he had eyewitnessed the first atomic explosion only two months earlier. That return resulted in a *Times* text-photo spread that might be dubbed the “white bootie caper.” It, in turn, epitomizes News Zero, the misleading *Times* coverage echoing uncritically U.S. government announcements that minimized, even denied, the existence or hazards of the A-bomb’s radioactivity. It is the defining feature of firecracker-like fissions whirring furiously inside certain atoms that distinguished these weapons from conventional ones. Because of the unique dimensions of power ushered in by nuclear weapons, President Eisenhower observed in 1956, “Humanity has now achieved, for the first time in its history, the power to end its history.”<sup>1</sup>

When returning to Ground Zero, Laurence was probably still receiving funds from the War Department for his consulting work, in a conflict-of-interest arrangement that then violated journalism ethics and *The Times* own avowed principle of impartial and independent news coverage. Only the week before, the Army had released his eyewitness account of the dropping of a plutonium-packed bomb, on August 9, from The Great Artiste onto Nagasaki’s thousands of inhabitants below, killing 70,000 of them outright. Revisiting Trinity had prompted Laurence to describe the explosion of that pot-bellied Fat Man bomb as “a living thing, a new species of being.”<sup>2</sup>

This re-visit was the first time since the Trinity explosion of

July 16 that Ground Zero had been visited by Laurence, General Groves, J. Robert Oppenheimer and other scientists whom the *Timesman* had seen take such great pains to monitor, measure and provide safeguards against the radioactivity they knew would result from that blast. This time Laurence would not have the exclusive press access that he had enjoyed in the past. Groves and his entourage were leading thirty other reporters and photographers on a tour of Trinity's half-mile crater incrustated with jade-green glass formed by the blast of heat that was as hot as the core of the sun. Groves' purpose for the press trip was to demonstrate that the Trinity site was safe from radioactivity and, thus, so was Hiroshima after being A-bombed. The headline above Laurence's Page 1 article published three days later delivered the message that Groves sought:

U.S. ATOM BOMB SITE BELIES TOKYO TALES

Tests on New Mexico Range Confirm That  
Blast, and Not Radiation, Took Toll

In his lead, Laurence said Trinity's Ground Zero "gave the most effective answer today to Japanese propaganda that radiations were responsible for deaths even after the day of explosion, Aug. 6, and that persons entering Hiroshima had contracted mysterious maladies due to persistent radioactivity.

"To give a lie to these claims," Laurence continued, the Army had opened up the Ground Zero site and with radiation meters officers had sought to show that after two months radiations on the surface of the ground "had dwindled to a minute quantity, safe for continuous human habitation."<sup>3</sup>

But Trinity wasn't all that radiation-free. Before entering the site, newsmen were handed white canvas sandals to put over their shoes, as Laurence mentioned in passing in the ninth paragraph of his story, so that, Groves explained, "some of the radioactive material still present in the ground might not stick to our soles." *The Times* published a photograph of the dignitaries walking around Ground Zero—but cropped it just above their ankles, thus eliminating the white canvas sandals that they were wearing from readers' scrutiny.<sup>4</sup>

In contrast, *Life* magazine published a photograph of Oppenheimer and others strolling through Ground Zero with white booties conspicuously covering their shoes. Besides, *Life* stated: "The New Mexico crater was still definitely radioactive" and the magazine

proved it by publishing another photograph showing how radioactivity, like light, had produced two thumbnail-sized circles of exposure on film.<sup>5</sup> The crater remains radioactive still. In the middle of the crater, sixty years after Trinity, a pee-wee-size pyramid sits fenced-in on all sides as an untouchable National Historic Landmark.

*The Times* misleading photo-text coverage of this white bootie episode epitomizes the News Zero theme of this book. News Zero was a pattern at *The Times* of neglecting to critically examine or even question U.S. government pronouncements that minimized or denied the hazards and persistence of radioactivity emanating from atomic explosions at the first Ground Zeroes and then in 86 tests in the Pacific. Misguided coverage of the effects of radioactive fallout on Marshallese reinforced false U.S. statements that *The Times* neglected to question or counter even when photographs of contaminated children warranted it. Also, forsaking a traditional press role, *The Times* left uncontested the government's overly broad policy that used secrecy in peacetime as a guise to blackout information that might lead to legal liability or adverse public reaction or that experts in Japan and the Soviet Union were already detecting. In other cases, even material facts not classified for military security were withheld from stories that could have early on informed readers about the 500,000-year radioactive persistence of plutonium, a critical ingredient in the bombs detonated at Trinity, Nagasaki and in 86 Pacific weapons tests. It constitutes today's major nuclear waste problem. "The past is not dead," as William Faulkner has stated. "It is not even past."<sup>6</sup>

Why such an extraordinary intellectual and lucid writer like Laurence would permit himself and his newspaper to become little more than a government propaganda outlet during the critical moments described in earlier chapters may never be fully known. But clearly, in the excitement of momentous events and the emotions of World War II, Laurence and *The Times* placed the mission of informing the public second to supporting the peacetime government. The pain, suffering or even deaths of many Pacific Islanders, U.S. servicemen, nuclear plant workers or miners and others might have been reduced if *The Times* had earlier and more conspicuously told readers about the health effects of radioactivity from the first Ground Zeroes in the thorough way it had covered the maladies of

the “radium girls” in the 1920s. As summarized below, the responsibility of a free press in peacetime had rarely been greater and *The Times* failed to meet that challenge.

In the first, systematic longitudinal assessment of U.S. press coverage of the dawn of the atomic-weapons era through the advent of radioactive dirty bombs, this book opens up a window overlooking an almost unknown world for many citizens, including journalists. It provides glimpses of the past 60 years that only within the last decade have become more fully revealed by the U.S. government with its locating and declassifying thousands of documents. Besides exposing the distant past in new ways, however, this examination also speaks to contemporary crises in the world, the nation and within journalism. As discussed in the Introduction, this book arrives propitiously as the world watches U.S. reconstruction of Iraq, the Bush Administration’s re-nuclearization programs and the nation’s leading newspaper re-appraisal of its internal policies and practices that had permitted plagiarism and fabrication to flaw its news coverage.

More than any other newspaper in the pre-television era, *The Times* wrote the most influential first rough draft of history of the atomic age because of the special, behind-the-scenes access granted to it. And as detailed below, that first rough draft was flawed. The grim consequences of this flawed first draft are laid bare in the Epilogue of this book, Chapter 10. The Epilogue reveals that in covering the second rough draft of history, *The Times* has improved little in reporting, from 1980 to 2004, on the nuclear legacy of disease and degradation in the Pacific that the U.S. government has so inadequately addressed. And the amount of *Times* coverage has slackened in recent years when measures vital to those Marshallese who had suffered most from U.S. nuclear testing were being debated—or shelved—in Washington, D.C.

## What About the Next Rough Draft of History?

This examination of the mis-reporting on the U.S. use of nuclear bombs as weapons against the Japanese and in tests in the Pacific can serve as a window on the coverage of nuclear terrorism or “time bombs”—and as a warning to those inside and outside of



journalism. The term *Ground Zero* has become a cliché for dramatic devastations like the World Trade Center tragedy of September 11, 2001. Another Ground Zero of the nuclear kind in a major U.S. city is a stark possibility in these days of vengeful and resourceful terrorists. It might be a full-fledged nuclear explosion or a “dirty bomb” spewing radioactivity through subways, ventilation systems, crowded places. How will *The Times*—and other media—assess such an event? Will they be equipped to report accurately on the health implications? Will they search out a range of sources or simply mirror government pronouncements on a wide range of issues? Will they press for facts that government officials declare to be secret but only serve as a cover for their own misdeeds or misjudgments rather than national security? Will they remember the lessons learned from the radium girls and Charlie Clark, that the diseases caused by radioactivity may not show up for years or even decades? Besides terrorism, how will *The Times* and other media cover what Asian experts call the immediate problem of nuclear “time-bomb” nations of India, Pakistan and North Korea, with its capability of launching a nuclear-tipped missile on the United States.<sup>7</sup>

This examination of the nation’s scientific, military and political leaders creating an unparalleled technological revolution and then so massively misjudging its consequences or adopting warped policies like human-subject radiation experiments also serves as an early warning to journalists—and readers—about another technological revolution that is now underway. What the splitting of the atom was to a by-gone era, the splitting of the gene is in the new millennium. As scholar-activist Jeremy Rifkin explains, this “new genetic science raises more troubling issues than any other technology revolution in history.” These issues include a new form of secrecy based on propriety information on patents and, as Rifkin explains, prospects of “the pirating of the accumulated indigenous knowledge of native peoples and cultures.”<sup>8</sup> To write the next rough draft of history, tomorrow’s journalists may require even more integrity, expertise and sensitivity to indigenous peoples than that needed in the atomic age.

The following section summarizes the assessment of the performance of *The Times* across these decades based on four principles it has advertised and claimed for itself since 1896, as described in

Chapter 1, and that since then have come to serve as the ideal for many of the nation's other newspapers.

## **Assessing Principle 1: “Give the News, Give All the News.”**

One principle instituted by Adolph S. Ochs on August 19, 1896, the day after he took control of *The Times*, was to “give the news, give all the news.” This and other principles were continued by Ochs' two successor publishers through the U.S. Pacific nuclear weapons testing period and then by the current management headed by Ochs' great grandson.<sup>9</sup> On October 25, 1896, Ochs adopted the motto “All the News That's Fit to Print.” Ochs went on to set an industry standard for an information-based model of newspapering. The motto is still carried in the uppermost left-hand corner of each front page of *The Times*.

Covering all the news in the nuclear age may be too lofty a mission even for a leading newspaper like *The Times*. But covering news vital to readers during an age first and foremost framed by *The Times* may reasonably be expected. By this standard, *The Times* fell short of giving readers some vital news, at several key junctures, about radioactivity emanating from the first Ground Zeroes at Trinity, Hiroshima, Nagasaki and in 86 U.S. Pacific nuclear weapons tests from 1946-62. Readers needed this information if they were to grasp the meaning and significance of this emerging age at the time when they could hold their elected officials accountable for their policies and when servicemen, nuclear plant workers, civil defense officials and Pacific Islanders could take precautions to protect themselves and their families from the nuclear menace.

### ***Vital News The Times Deemed Unfit to Print: Radiation***

From the very beginning, when *The Times* first told the world of the A-bombing of Hiroshima and for the five following days, descriptions used by the newspaper largely ignored the defining feature of atomic weapons: radiation. As detailed in Chapter 2, this finding is documented when only one article mentioned radiation in the 132 *Times* text-based news items about the A-bombings of Hiroshima and Nagasaki. As a substitute for explaining this unique

feature of radiation, *Timesmen* resorted to exaggerated use of superlatives and flowery writing. And they failed to explain that once an atom-splitting chain reaction began to unleash its tremendous energy, it was irreversible, a feature that has resulted in today's nuclear waste problem.

A month after the A-bombing of Hiroshima, *Times* articles and editorials again toed the line of the U.S. government and relied on official sources without conducting independent examinations of the effects of radiation as witnessed and published by one Western reporter who had seen patients in Hiroshima hospitals dying from a kind of "atomic plague," as detailed in Chapter 2. Later, in the aftermath of the 1954 Bravo shot, *The Times* neglected to go beyond misleading or false official statements and to examine independently material in the open literature that would have detailed the health effects of radioactive fallout on those Marshall Islanders most dramatically impacted.

### ***Vital News Deemed Unfit to Print: Plutonium's Half Life***

When *The Times* published and indexed articles on plutonium through 1962, those articles neglected to mention plutonium's 24,000-year half-life—or its 500,000 years of radioactive existence. Omitting this material fact served as one key indicator of the superficiality and lack of context in *Times* articles through 1962 even when the undisputed scientific fact about half lives could not be classified as secret because specialists of all nations already knew it. As documented in Chapter 7, only one of the 128 articles published in and indexed by *The Times* included the pertinent fact of the lengthy half life of plutonium and only 13 other articles (10 percent) told of its being one of the deadliest elements known to humans. No articles mentioned the presence of plutonium in the Pacific, where most of it was expended in the unprecedented U.S. tests.

Even in the post-Cold War era and as plutonium is being transported across the nation and the seas, *Times* articles regularly neglect detailing its hazards and multi-millennial radioactivity. In the most recent years of the new millennium since June 2, 2000, *The Times* has not described the half life of plutonium in any of the 456 articles in which it has mentioned that man-made element.

Without knowledge of the longevity and deadliness of plutoni-

um's radioactivity, readers have been unable to evaluate the policies of their government officials and to hold them responsible on a timely basis for managing an entirely new phenomenon that might affect the health of themselves, their children, their grandchildren and their descendants for generations to come. Readers have been thus also unaware of the degradation of the environment in the Pacific and the sacrifices of its inhabitants. Absence from *Times* articles of plutonium's half life and its 500,000 years of existence have deprived readers from learning about man-made radioactivity that for 500 millennia will add to radiation already emanating from nature, consumer products and from medical or dental usage.

### ***Vital News Deemed Unfit to Print: Health of the Marshallese***

Before the cessation of U.S. Pacific testing, *The Times* neglected to go beyond government statements that minimized or denied adverse health conditions of the Rongelap and Utrik Islanders resulting from the heavy radioactive fallout descending upon them from the March 1, 1954, Bravo shot, the most powerful in U.S. history. After a Marine corporal's letter to his hometown newspaper exposed the evacuation of the islanders that the government had sought to keep secret, *The Times* reported several immediate U.S. announcements that *Timesmen* left unexplained, unquestioned or uninvestigated, even when they contradicted earlier official statements. After that, over the next eight years until the nuclear experiments ended, only 14 references about the victims' health were found and these were inconspicuously placed in the newspaper, thus minimizing the public's awareness of the adverse health effects of radioactive fallout on the Bravo-dusted Marshallese. Pre-1963 information not disclosed by government officials or not initiated by *The Times* caused its readers to be uninformed about Marshall Islanders' acute radiation sickness, radiation-induced stillbirths or miscarriages, growth or mental retardation of children, symptoms of thyroid abnormalities and deaths that were possibly caused by radioactivity.

After the cessation of U.S. Pacific nuclear weapons tests in 1962 through the 1970s, *The Times* gave more prominence to the thyroid tumors and abnormalities caused by the Bravo shot on the Rongelap Islanders. But then, for the 24 years beginning June 1,

1980, *The Times* has published only six brief, inconspicuously placed references to the health conditions of the Rongelapese and it has given no coverage to a mounting toll from cancer that even the U.S. government presumes results from its nuclear tests.

### ***News Unfit to Print: U.S. Neglect of the “Nuclear Nomads”***

If the Bikinians serve as “a case history of U.S. bureaucratic incompetence and neglect,” as historian-lawyer Jonathan M. Weisgall asserts, they also serve as a case history of the news neglect of *The Times* to cover the government’s maladministration related to the nuclear nomads from Bikini and Enewetak atolls.<sup>10</sup> These nomads were displaced from their ancestral homelands that served as launch sites for 66 U.S. Pacific tests. Bikini Atoll today is still too radioactive to be habitable; only 42 percent of Enewetak Atoll is habitable and eight percent of it was vaporized during the testing. *The Times* neglected to take the information-gathering initiative to access unclassified literature about the desolate, destitute existence of these exiles before 1962 and to press government officials for more detailed, regular announcements about them.

United Nations officials who visited the Trust Territory where the displaced persons lived and reports about U.S. administration of the area could have provided more details about, and grievances from the islanders than *The Times* published. In the new millennium, *The Times* has neglected to report on the property damage awards authorized to these islanders by a tribunal that the U.S. and Marshallese governments agreed to—and that only a fraction of one percent of the award can be paid because of the inadequacy of the U.S. funding mechanism.

### ***Vital News Unfit to Print: Entrusted Nuclear Racism***

Most U.S. Pacific nuclear tests were conducted in the Marshall Islands when they were part of the Trust Territory of the Pacific Islands (TTPI), which the United States administered under sanction from the United Nations (U.N.) from 1947 to 1991. During the nine months that President Truman’s trusteeship proposal was being negotiated at the U.N., from November 7, 1946, to July 20, 1947, *The Times* was silent in all of its 17 news stories or analyses and its

three editorials about duties and obligations of the U.S. government to the inhabitants of the proposed strategic trust, as is documented in Chapter 4.

Thus, except for the text of President Truman's proposed trusteeship agreement that *The Times* published, its readers were uninformed about U.S. obligations under the U.N. agreement to "protect the health of the inhabitants" and "to protect the inhabitants against the loss of their lands and resources." Nor were *Times* readers informed that two nuclear weapons tests had already been conducted at one atoll that was then included in the TTPI, which was established to ensure international peace. Later readers learned about these legal obligations when Soviet and Third World governments increasingly criticized U.S. policies, which Washington in turn deflected by labeling their arguments as leftist propaganda.

Racial minorities under U.S. governance, as well as those dominated by other nuclear powers, carried a disproportionately heavy burden of the nuclear age.<sup>11</sup> The ancient Native American tribal lands on the U.S. mainland and remote atolls in the Pacific served first as test sites and are now being singled out as repositories for nuclear waste. The Yucca Mountain site that President George W. Bush, in mid-2002, designated as a nuclear waste burial ground is the past and contemporary home of three Native American tribes, the Western Shoshone, the Southern Paiute and the Owens Valley Paiute. The Yucca Mountain site, in turn, is a small fraction in the southwestern corner of the Nevada Test Site that was used for many U.S. nuclear tests. In the Marshall Islands, a 30-foot by 350-foot crater left in Runit Island in 1958 by the 18-kiloton Cactus test was filled with plutonium-laden soil and debris from neighboring Enewetak islands and entombed beneath a dome of 18-inch thick concrete panels.<sup>12</sup> Some now fear that radioactivity is seeping from the dome into the environment.

Even the explosions from nuclear weapons discriminated against people of color. The enormous heat produced by nuclear explosions—10 million degrees centigrade or as intense as the core of the sun—was absorbed more markedly, with more pronounced results, by dark skins and eyes, while the color white more readily deflects heat. U.S. doctors examining those dusted by Bravo's radioactive fallout found that a coloring appeared in the half moon

part of fingernails and toenails in the higher exposed group of Marshallese and in five Bravo-dusted African American servicemen, but not in the 23 Caucasians also exposed on Rongerik Atoll. A similar condition had been observed and written about in 1952 after an African American woman received x-ray therapy.<sup>13</sup>

The near-invisibility of dark-skinned peoples like Pacific Islanders led to a sins-of-omission model of *Times* news coverage that facilitated decades of victimization by U.S. officials of people who had been entrusted to their care by the U. N. As sociologists who have researched this sins-of-omission model of news coverage concluded: "It may be that inhumanity depends on the invisibility of the victim."<sup>14</sup>

### ***News Unfit to Print: "Forgotten Guinea Pigs" and Congress***

In 1946, Pacific Islanders were invisible and voiceless in Washington when officials announced plans to use Bikini Atoll for the first nuclear weapons tests, codenamed Operation Crossroads. From the beginning, *The Times* followed the government lead in virtually ignoring the Bikinians and the effects of the tests in and on the Pacific region. Significantly, *The Times* left unchallenged the government assumption that the tests at Bikini Atoll were essential, even though leading scientists voiced opposition to them. The views of the leading opponents were not sought out and those who did speak out received little space in *The Times*.

After 1980, however, Marshall Island government officials conspicuously voiced their grievances and views of U.S. maladministration in numerous Congressional settings, including four key Congressional hearings and in two Congressional reports, as detailed in Chapter 10. But nothing appeared in *The Times* about information made in those six disclosures. Thus, missing for *Times* readers was the islanders' fresh, official documentation that Marshallese had been used as subjects for human radiation experiments during the period of U.S. nuclear testing, that the U.S. government, decades later, was still withholding information about these experiments thus prohibiting the tracing and compensating of the patients and that U.S. funding was woefully inadequate to compensate the Marshallese for nuclear-related damages.

*The Times* also omitted the Pacific Islanders from its article

about a House oversight subcommittee report that had included them among "The Forgotten Guinea Pigs," as detailed in Chapter 10. The report had included the islanders in its grim conclusion: "The greatest irony of our atmospheric nuclear testing program is that the only victims of U.S. nuclear arms since World War II have been our own people."

In contrast to this omission, *The Times* seemed to follow its newspaper-of-record function more meticulously by publishing short articles about payment of U.S. funds to the Marshallese or about court cases they filed to challenge U.S. actions.

Negotiations and final agreement leading to the 2004 provisions of the Compact of Free Association received only 15 words of mention in *The Times*, leaving readers uninformed about the halving of U.S. grants to the Marshallese over the next 20 years and the elimination on December 31, 2003 of a health-care program for inhabitants of the four atolls most directly impacted by U.S. nuclear weapons tests.

That gap in *Times* coverage also leaves readers uninformed about a major component in U.S. national defense. As the western terminus of the Bush Administration's "Star Wars" experiments, Kwajalein Atoll in the Marshall Islands is today as vital to U.S. super-power posture in the post-Cold War era as other atolls in the Pacific region were about 60 years ago. Parallel to the Compact agreements, a separate land lease agreement entitles the U.S. government to research and test missile systems and missile-defense systems at Kwajalein, the world's largest atoll. Kwajalein also houses space tracking equipment to update "a catalog of near-earth and deep-space objects," to observe new foreign commercial or military launches and to provide radar images of selected satellites. Since 1983 it has been significant in research in the Reagan Administration's "Star Wars" Strategic Defense Initiative, which began the militarization of space, and remains so with the Bush Administration's go-ahead for an anti-missile defense system. To pursue this new phase of "Star Wars," the Bush Administration, in June 2002, withdrew the U.S. government from the 1972 Anti-Ballistic Missile Treaty, in which Kwajalein was one of two sites listed. Three tests annually of the Minuteman III intercontinental ballistic missile utilize Kwajalein and seven national missile defense



tests have been conducted there as of January 2002. In June 2001, the facility worth about \$4 billion, became officially known as the Ronald Reagan Ballistic Missile Defense Test Site. Almira Ainri, who was described in Chapter 4, said Marshallese consider these sophisticated missile experiments horribly frightening because residents are unsure where the resulting debris will fall.<sup>15</sup>

Apart from the 2004 Compact, a Marshallese petition for more funds to compensate for nuclear-caused personal injury and property damages has been before Congress since 2000. It has received no attention from that body or in the pages of *The Times*.

## Assessing Principle 2: Questions of Public Importance

Another of Ochs' principles called for making the columns of *The Times* a forum for considering all questions of public importance. *The Times* fell short in achieving this principle on several occasions during the period of U.S. Pacific nuclear weapons tests. During the 1946 planning phases to launch the first tests, *The Times* failed to ask the fundamental question of whether Operation Crossroads was needed at all; instead, its articles and editorials solidly backed Operation Crossroads and even derided those who dissented. For example, as described in Chapter 8, a "Topics of the Times" column recycled military editor Baldwin's quotes about the "crack-pot" assertions of "pseudo-scientists, many with an axe to grind." Opposition to Crossroads by the prestigious Federation of American Scientists was buried in the last five paragraphs of a 25-paragraph *Times* story. Prominent scientist and excellent *Times* source, J. Robert Oppenheimer, was not asked his assessment for publication in *The Times*, although he vigorously opposed Operation Crossroads in a letter to President Truman two months before the test.

*The Times* did give conspicuous space to speeches that opposed Crossroads in two Congressional floor sessions but by that time it was too late to make a difference because President Truman had already given final approval for the operation. From 1980 on, questions of public importance presented to Congress by Marshallese officials about inadequate funding and health care arising from nuclear weapons tests have gone virtually unreported in *The Times*.

### *Failure to Report on or Challenge the Government's Secrecy*

A major question of public importance left unasked in *The Times* was whether information that was being withheld in the name of national security was overly broad and thus was in effect hampering civil defense planning to the extent of actually endangering the very public that the secrecy was supposed to protect, or was putting at risk the servicemen, workers and Pacific Islanders and others near or downwind from nuclear production or test sites. The "restricted data" classification for information being withheld was broadly defined in part as all information "concerning the manufacture or utilization of atomic weapons." Yet documents declassified in the 1990s reveal that many U.S. actions or programs were kept secret to avoid legal claims for damages or adverse publicity.

The code of ethics of the American Society of Newspaper Editors in use during the testing period granted the press "the unquestionable right to discuss whatever is not explicitly forbidden by law, including the wisdom of any restrictive statute." But this code was not acted on by *The Times*, according to its articles. *The Times* did editorialize that the press and others be permitted to witness the destructiveness of the first two peacetime atomic tests at Bikini Atoll in July 1946 and the government also wanted to demonstrate its unparalleled power. But after those two tests, as discussed in Chapter 6, *The Times* did not urge in its editorials, columns or speeches by its executives more press access to the Pacific test sites or to data on the health and environmental effects of those experiments. An occasional editorial justified the government's secrecy.

Other questions left unanswered, according to *Times* articles, related to the fragmentary way in which the number of Pacific nuclear weapons tests was announced by the U.S. government. Challenging the government's secrecy became more essential after 1951 when Operation Greenhouse demonstrated a thermonuclear bomb could be built, as was discussed in Chapter 6. The Greenhouse tests even prompted Atomic Energy Commission Chairman Gordon Dean to urge more disclosure so as to promote better civil defense planning but he said he was blocked by military officers. In 1956 and 1958, Japanese and Soviet sources were announcing more quickly and more accurately the number of U.S. Pacific nuclear weapons

tests than Washington was and *The Times* published brief wire service stories about these. No evidence in the articles in *The Times* was discovered in this period demonstrating that the newspaper sought more information from the U.S. government than it was disseminating or that it was even informing readers of what they were being kept in the dark about. Because U.S. governmental secrecy about the yield and accurate number of tests was left unquestioned and unchallenged by *The Times*, the significant role played by the Pacific region in nuclear history was obscured by the U.S. government until 1994 and has still not been appreciably described for *Times* readers.

### Assessing Principle 3: Discussion from All Shades of Opinion

Ochs mandated that *The Times* should invite discussion from all shades of opinion. A crossfire of opinion was sometimes evidenced in the letters to the editor columns of *The Times* from 1946-62 and for 24 years beginning June 1, 1980.

In its news columns before 1962, however, *The Times* was often prone to de-emphasize views on nuclear matters that dissented from U.S. policy. As discussed in Chapter 4, a striking example was the two *Times* articles trumpeting the government's anti-submarine underwater experiment codenamed Operation Wigwam in 1955. Yet the 29-word article of dissent from irate fishermen was buried in the lower left-hand corner of Page 5. Operation Wigwam exemplifies *Times* descriptions that emphasized U.S. technological prowess but that de-emphasized dissent about the impact of that technology. Decades later, as detailed in Chapter 5, a lawsuit by a Wigwam participant dying of leukemia revealed the hazards of that test conducted only 450 miles from San Diego.

### Assessing Principle 4: "Give the News Impartially"

Ochs set forth that *The Times* should "give the news impartially, without fear or favor, regardless of any party, sect or interest involved." This credo was placed above the bust of him standing in the lobby of *The Times* building. As described in Chapter 1, "Without Fear or Favor" became the title of two books about *The Times*.

Despite the high ideals of this principle, however, Ochs' *Times* in practice, held to the hidden policy of bowing occasionally to the wishes of authorities. His two successors continued to do the same on five known occasions during the peacetime period of U.S. Pacific nuclear weapons tests. This occasional and unpublicized *Times* predisposition to protect the powerful and those in power snowballed from the very beginning of the atomic age.

### *Ethics Behind the "Atomic Curtain"*

William Laurence blurred the line between impartial journalist and government apologist during the last days of World War II and for several months after peace resumed, as documented in Chapter 2. During that time when he was writing for and receiving funds from both the newspaper and the U.S. government, he fixed and framed readers' first images of the destructiveness of the atomic bomb but was virtually silent on the menace of radiation to humans and the environment. In the ten-part series he wrote for the government about the birth of the atomic bomb, Laurence devoted portions of only four paragraphs out of 322 to mentions about radiation.

Simultaneously receiving funds from both the U.S. government and *The Times* creates an inevitable perception of undermining the newspaper's claims of fearless impartiality in its news coverage and of compromising the conflict-of-interest provision, which then barred secondary employment, in the voluntary codes of ethics of both the American Society of Newspaper Editors and the Society of Professional Journalists. At the corporate level, *The Times* also undermined the principle of impartiality by lending its resources and reputation to serve the government by distributing, under its own name, Laurence's ten-part series free to newspapers nationwide. *The Times* occasionally went a step further and reprinted in inexpensive booklets Laurence's long explanations of government documents and distributed the materials.

Some *Timesmen's* articles should also have been labeled to conform to the provision in the code of ethics of the Society of Professional Journalists calling for a "clear distinction" between news reports and expressions of opinion.

This book examining the conflict of interest of Laurence and *The Times* of earlier decades comes as the newspaper is pulling itself

out of an integrity crisis of another sort, as described below, the plagiarism and falsehoods of a rookie reporter.

***News Practices: 7.7% for Bikini vs. 92.3% for "Birthday Suit"***

*Times* news coverage rested on a number of questionable news practices. First, as detailed in Chapter 3, *Times* claims of impartiality in its news coverage were undermined by Laurence's use of metaphors that tapped a group of images partially making up Western culture and the Judeo-Christian religion.

Second, *Times* articles and photographs were often framed through the prism of Euro-American assumptions that portrayed cultural superiority over the Pacific Islanders or else rendered them nearly invisible. For example, immediately after World War II, Pacific Islanders were portrayed as beneficiaries of U.S. humanitarianism in a new American empire. Decades later, in the 24 years beginning in 1980, *The Times* published 1,539 articles containing the word *bikini*. But 92.3 percent of these focused on the split-level swim suit and only 7.7 percent focused on Bikini Atoll or the atomic bomb there that had inspired French engineer Louis Reard to create the skimpy garb. By spotlighting Reard's "birthday suit," rather than the Bikini of Operation Crossroads, *The Times* produced, during 24 years, a media-made view of Bikini that in a way obscured and trivialized the nuclear devastation the United States had wrought there.

Third, *The Times* often accepted, at face value, repeated and gave uncritical credence to the U.S. government vocabulary that mischaracterized the hydrogen bombs being tested. For example, government press agents adopted the words "clean" and "humanized" to describe the 1956 hydrogen bombs that, in 17 Operation Redwing tests, produced secretly the equivalent of 1,388 Hiroshima-size bombs over a 10-week period or 138 per week or nearly 20 per day. Such yields hardly justified "clean" and "humanized" as accurate adjectives for the government to use. But the government did use such descriptors and *The Times*, in headlines, news articles and news analysis, uncritically passed them on at face value.

Fourth, *Times* articles and headlines were quick to report that the Bravo-dusted Rongelap and Utrik Islanders within months were recovered from the effects of radioactive fallout in 1954 even when U.S. officials and data from survivors of Hiroshima and Nagasaki

indicated that delayed effects, including cancer, might show up later. Reporters' questions about delayed effects would have been in order then and continue to be now as the long-term genetic impact of nuclear testing is still being assessed.

Fifth, numerous *Times* articles failed to make clear when and why government officials were withholding information and whether journalists had specifically asked for it. As a result, readers didn't know what they didn't know.

### ***On News Selection and Placement***

*The Times* principle of impartiality also was undermined by its descriptions of the U.S. Pacific nuclear weapons tests in another significant way. The selection and conspicuous placement of news about some tests tended to reinforce or even legitimize U.S. government statements and technological prowess, as did its editorials and news analysis articles, but they also obscured the extent and effects of the tests.

*The Times* well-advertised principle calling for fearless impartiality meant, in actual practice, a selection of news evidenced by the absence of enterprise reporting, followup questions and critical examination of U.S. government policies that affected the U.S. Pacific nuclear weapons tests and that restricted press coverage of them.

In short, *The Times* has left largely unreported the magnitude and health or environmental effects of the U.S. Pacific nuclear weapons tests. Due to fallout from U.S. atmospheric testing from 1946-62, most of it occurring in the Pacific, up to 800,000 people in the United States and worldwide are estimated to have died or will die prematurely from fatal cancer attributable to the testing. That statistic, which receives virtually no press coverage, is far more than the number that the media devote in airtime or news space to the 617,389 U.S. servicemen killed in World Wars I and II, the Korean War, the Vietnam War and the Gulf War combined.<sup>16</sup>

Nationwide since 1940, the cost to build U.S. nuclear weapons and now to dismantle and to begin storing or disposing of the radioactive and toxic wastes totals an estimated \$5.5 trillion. That is about 11 percent of the federal budget for the 56-year period or about \$21,646 for everyone living in the United States at the start of 1998.<sup>17</sup> Moreover, as discussed in Chapter 6, researchers found

that unwarranted secrecy since 1940 has adversely affected “informed congressional and public debate over nuclear policy, constitutional guarantees, government accountability, and civilian control over the military.”<sup>18</sup>

Once testing stopped in the Pacific in 1962 and the United States and Soviet Union agreed to ban nuclear testing in the atmosphere, in space and underwater, *The Times* did provide grim statistics on the thyroid problems and cancer deaths of the Marshallese. But then for 24 years, from 1980 on, only six such glimpses were provided and these were nuggets of information buried within larger pieces. As detailed in Chapter 10, *The Times* reported as mere mentions within inconspicuously placed articles that the world’s highest incidence rate of thyroid cancers and growths was among the Marshallese population 40 years after the Bravo shot, that Rongelapese stillbirths and miscarriages were more than twice the rate of unexposed women, that physically deformed children and death resulted from radiation disease and that Rongelap residents had abnormal white-blood counts and high levels of plutonium in their urine.

Missing from *The Times* has been the high rates of cancer. From 1985 to 1994, medical researchers found that in comparison to U.S. rates, Marshallese lung cancer rates were 3.8 times higher in males and 3 times higher in females; cervical cancer rates were 5.8 times higher and liver cancer rates were 15.3 times higher in males and 40 times higher in females. Moreover, Marshallese who have been transplanted from their self-sufficient atoll existence to crowded urban settings and diets of imported foods have been found to be malnourished. Westernization and the breakdown of islanders’ cultural values have resulted in other diseases.<sup>19</sup> As noted in Chapter 10, the use of Rongelapese as human research subjects was also unreported in *The Times*, even when dramatically disclosed by a Marshallese official in a Congressional hearing.

Degradation of the Bikini and Enewetak atolls that served as nuclear weapons launch sites has also been substantial and largely unreported in *The Times*. Bikinians were displaced from their atoll in 1946 and remain exiled today because of radioactivity. Of the 170 evacuated in 1946, 73 are still alive. Over the years, their numbers have grown to 2,875; they are now scattered on at least three sepa-

rate atolls and in the United States, thus losing their close-knit culture. Three of Bikini Atoll's 23 islands were vaporized during the testing.<sup>20</sup>

Eight percent of Enewetak was also vaporized during the nuclear testing period and an additional 49.4 percent is too contaminated with plutonium and other deadly radioactive elements to be inhabitable, possibly for centuries. As detailed in Chapter 8, 142 Enewetakese were evacuated in 1947 to pave the way for the H-bomb era. Their numbers have grown over the decades so that about 900 Enewetakese now live on 42.6 percent of their home atoll that is still too contaminated to produce food; they exist on imported goods. An additional 700 or so Enewetakese live elsewhere in the Marshall Islands, in Hawaii or on the U.S. mainland.

### **“Shock and Awe” from Hiroshima 1945 to Iraq 2003**

The A-bombing of Hiroshima and Nagasaki provided the theoretical basis for the massive “shock and awe” airstrikes the U.S. government waged 58 years later against Saddam Hussein's regime in Iraq. The theoreticians of that strategy, Harlan K. Ullman and James Wade, declared in 1996 that the “rapid dominance” to be achieved by U.S. forces through their shock and awe strategy would serve as “the non-nuclear equivalent of the impact that the atomic weapons dropped on Hiroshima and Nagasaki had on the Japanese.” These latter-day strategists argued that the A-bombing of the two cities transformed the suicidal-resistance mindset of the Japanese people and leaders into unconditional surrender because of “this condition of Shock and Awe. The Japanese simply could not comprehend the destructive power carried by a single airplane. This incomprehension produced a state of awe.”<sup>21</sup>

The Ullman-Wade connection between the recent U.S. war on Iraq and the first “shock and awe” resulting from the only combat use of atomic weapons in history and in the world epitomizes the omnipresence still emanating from the dawn of the atomic age. These two strategists had a flawed sense of history because Japan was already looking for ways to surrender before the two atomic bombs were dropped and *The Times* banner headline two days after the A-



bombing of Hiroshima reads that the “Shock Awed Fliers,” not the Japanese.<sup>22</sup> And their strategy has hardly awed the Iraqis as numbers of war dead and wounded mount and U.S. officials struggle to rebuild a nation in ruins. Whether in theories of military strategists, the subconscious or actual fears of everyday citizens or the threats of radiotoxic terrorism, the atomic age first announced to the public with the obliteration of Hiroshima on August 6, 1945 has shaped the world irreversibly in the last six decades, imperiling for the first time the entire planet and future generations for centuries to come.

The A-bombing of Hiroshima unveiled to the world the worst—and unique—weapon of mass destruction. But regular omissions from today’s news stories of the deadliness and longevity of radioactivity enable the Bush Administration to loosely and illogically include nuclear arms under the umbrella term of “weapons of mass destruction” along with biological and chemical devices that are many orders of magnitude less expansive and long-lived.

The World Court noted that nuclear weapons have the potential to destroy all civilization and the entire ecosystem of the planet, to damage the future environment and to cause genetic defects and illness in future generations. The phenomenon of powerful and prolonged radiation is unique to nuclear weapons, the Court advised in a first-of-its-kind opinion by an international tribunal in 1996 and added, “The destructive power of nuclear weapons cannot be contained in either space or time.”<sup>23</sup>

Avoiding past gaps in *Times* coverage might be addressed by future implementation of eight recommendations discussed below.

## **No. 1: Establishing a News Audit on Critical Issues**

Gaps in the coverage of the U.S. Pacific nuclear weapons tests, their effects on humans and the environment and the dangers of radiation might have been minimized if *The Times* had been conducting a periodic audit of its news product on these critical issues.

Thus, recommended for future consideration is a news audit that would be initiated by newspaper management or else by a non-profit organization or academic institute. The news audit could be conducted much like a focus group. But instead of being devoted to

enhancing readership, as is its usual function, this focus group would be devoted to improving the news product. This new kind of group might consist of invited specialists studying a critical issue such as the legacy of U.S. Pacific nuclear weapons testing. These specialists could advise editors and reporters, critique past coverage, help define central issues, provide tips for future directions, suggest glossaries or graphics and guide the accessing of hard-copy and electronic resources.

Especially important would be the assessment by these outsiders about *The Times* independence from the U.S. government (or other agencies of power) and about alternative assumptions and policies that needed examining. For example, the past assumption of *Times* science writers that all scientific endeavors equated with human progress might be evaluated. Especially valuable in the audit would be cross-cultural perspectives related to the selected critical issue. Specialists invited to conduct the audit might be recently retired staffers from universities, non-profit organizations or the professions and international students or professors who would be able to bring a more disinterested perspective in making their advisory judgments and yet be up-to-date.<sup>24</sup> Some specialists might be retained in a more formal way to provide tips or special articles, much like stringers now serve news outlets in distant places not regularly staffed by the media.

This audit would have to include a strong component on ethics. The ethics of withholding key information, of interacting with sources from non-Western cultures and of problem areas being encountered are areas for scrutiny that are suggested by *The Times* inadequate coverage of the nuclear era. *The Times*, in mid-2003, publicly vowed to increase its emphasis on training and educating of its personnel on ethical issues in the wake of the Jayson Blair scandal, which is discussed below. However, the "Ethical Journalism Guidebook" and "Guidelines on Integrity" that *The Times* maintained on its website in early 2004 were silent on two areas highlighted in the examination of its early atomic-age coverage. This current *Times* guidebook is silent about its news editorial staffers' being barred from consulting for the government (or any other institution that reporters may be covering), as *The Times* permitted Laurence to do in 1945. Likewise, the guidebook is silent on staffers' being barred from serving in reserve units of the armed forces, as mil-

itary writer Baldwin decided he should not do before World War II.<sup>25</sup> In addition, adding more pressure on its staff, *The Times* itself is becoming more entangled in more business arrangements further removed from news such as New England Sports Ventures.

To increase communication throughout the company and to educate others, *The Times* should also bring back the invaluable “Winners and Sinners” flier, which at one time was distributed throughout the organization, to journalism educators and to others. That flier educated its select readers of misjudgments as well as achievements in reporting and editing that appeared in the newspaper.

If *The Times* fails to improve its news content on vital topics, individual readers or the many public-interest groups critiquing the news media might take it upon themselves to do so.<sup>26</sup> Since the 1960s, the news media’s vacuum in investigating the environmental and health effects of nuclear testing and electric power generation has been filled by academic institutes and public-interest groups. Criticism from readers and organized groups prompted *The Times*, in 2000, to publish a 1,500-word assessment admitting flaws in its coverage of the Wen Ho Lee spy case.<sup>27</sup>

Reversing its longstanding opposition to the National News Council and to naming its own ombudsman, *The Times* appointed Public Editor Daniel Okrent on December 1, 2003, indicating that the newspaper is now much more open to the criticism of outsiders as a means to regain its credibility. But the duties of Okrent seem more limited than the systematic news audits across topical areas that are recommended here—and his experimental position expires in 18 months.<sup>28</sup>

## No. 2: Diversifying Newsroom and Management Personnel

Broadening perspectives in news content may well require diversifying newsroom and management personnel in a new way. *The Times* should make a special effort to include executives and staff members from indigenous cultures and others with alternate worldviews as a means to broaden perspectives offered on its editorial and news pages. Offering this diversity of worldview would go

beyond the fresh re-commitment of *The Times*, made in late 2003, to expand the ethnic and gender composition of its staff. Implementing a personnel decision to include diversity of worldviews may require *The Times* to recruit actively such persons and to devote scholarships and other financial aid to help educate persons from these special backgrounds. Persons providing these perspectives should also, as soon as possible, be actively solicited to submit op-ed columns and special features or ideas for enterprise reporting or newsfeatures. As noted in the Introduction, *The Times*, in the 1970s, began to permit more women and African Americans into its newsroom and management positions in response to class action lawsuits by both groups and by late 2003 the newspaper pledged to improve its efforts. As of January 2004, *The Times* lists six of 18 corporate officers who are female, judging from their first names; ethnicity could not be determined. Two of the top officers of the newspaper are female. In August 2003, Washington bureau chief Jill Abramson became the highest-ranking woman in the history of *The Times* newsroom when she was named as a managing editor. Even so, *The Times* self-investigation committee appointed in the wake of the Blair scandal wrote on July 28, 2003, "Despite top leadership's often-stated commitment to diversifying the newsroom population, the representation of women and minorities, particularly among editors and in the upper ranks of management, falls short of percentages in the general population."<sup>29</sup>

Recruitment alone is not enough, as epitomized by the Jayson Blair scandal of mid-2003 in which a *Times* reporter who is African American fabricated his stories or plagiarized materials. A better system of support, supervision, training and even inspiration seems needed with a strong commitment and abundant resources provided by the highest corporate level and in mid-2003 *The Times* committed itself to do just that. Ethical standards need not only to be reinforced for newsroom personnel but also to be voluntarily instituted by the business and management executives not now covered. Hiring fewer journalists of color would be a mistake; hiring them and providing a process to ensure their success would inspire the profession. Handled well, *The Times* may end up refurbishing its tarnished reputation and devising a management scheme instructive for other journalism professionals and professors.

In addition, the reader's representative appointed by *The Times* in July 2003 in the wake of the Blair scandal should be bold enough and independent enough to initiate an investigation into past deficiencies in nuclear-related news and editorial content in the newspaper and to inspire, even insist on, corrective policies and practices for today's coverage of this resurgent issue.

### No. 3: Systematically Scanning More Varied Information Sources

*The Times*, by 1946, had built its reputation on the quality of its newsgathering resulting in part from its innovation of using specialized reporters. These specialists in science, military affairs and medicine appeared to operate individually in locating and using their own kinds of printed and human sources without corporate support or guidance beyond the newspaper's library. The medical editor specialized in the rehabilitation problems of the past war rather than the emerging health dangers of the nuclear age. *The Times* took no steps to hire a specialist to focus on the effects of nuclear testing on the health and the environment of the Marshallese and others.

A significant finding made in this case study is the numerous kinds of specialized multidisciplinary materials that were available in the open literature but were not used as sources in articles published by *The Times* through 1962. These materials included brand new professional or research journals inaugurated to capture the intersection of emerging specialties such as health physics or atomic energy law. Among the significant literature neglected by *The Times* were numerous medical articles illustrated with grisly photographs that described the condition of the Bravo-dusted Rongelap and Utrik Islanders in far more accurate terms than those being used by U.S. government officials and echoed in *The Times*. Other significant documents overlooked by *The Times* were those about human radiation experiments that were available publicly as early as the 1950s, as discussed in Chapter 9. Accessing and reporting on articles in this non-classified literature about radiation experiments on animals might have provided pertinent information about the effects of radiation and radioactivity much earlier for the benefit of nuclear

plant production workers as well as servicemen and islanders near weapons test sites.

This 1950s open literature also revealed radiation experiments that used human subjects and these shocking cases might have been exposed decades earlier than the 1990s. Numerous human radiation experiments in which plutonium was injected into hospital patients were conducted at the University of Rochester in upstate New York, close enough to *The Times* office to be newsworthy and convenient enough for newsgathering. *The Times* may have missed exposing a national scandal occurring in its home state.

Not many of the post-Blair improvements that *The Times* promised in mid-2003 involved upgrading the capabilities of newsroom personnel to scan the vast increase in information available on the Internet and elsewhere. In fact, as part of its self-investigation, one committee found just the opposite and called for discussions on coverage “beyond the next day’s horizon.” That committee reported that in the Science, Washington and Foreign bureaus, reporters and editors complained that too little brainstorming of ideas takes place. When it does, there is little followup and little focus on the “broader landscape,” rather than specific tasks at hand.<sup>30</sup>

---

## No. 4: Broadening Religious and Cultural Perspectives

*Times* articles often described the atomic-bomb experience in terms of the Judeo-Christian religion and Euro-American cultural assumptions. The blinders of these once-dominant U.S. groups need to be replaced by innovations that broaden the religious and cultural perspectives of the news staff with specific emphases that include, but are not limited to, framing, language use, figures of speech and metaphors and even focus on the common heritage of warring factions. Translations of exemplary texts, videos or Internet transmissions from non-U.S. cultures and political systems might also be introduced.

Although the terms have changed, this underlying problem continues on today’s *Times*. Public Editor Okrent wrote the week after he had been appointed on December 1, 2003, that “I’ve heard complaints about the paper so intense they could peel paint.” He said these included complaints of “virulent anti-Catholicism,”

“prima facie anti-Semitism,” conscious hostility to conservatives and absence of coverage of anti-Taliban Afghanistan.<sup>31</sup>

## No. 5: Providing More Depth in Nuclear News

*The Times* staff, then the world’s largest, included reporters specializing in the three domains that intersected in the nuclear weapons testing era: affairs of science, the military and medicine. The two covering science and the military had been awarded the nation’s top journalism prize. Even so, the advantages of hindsight indicate that articles by them show gaps in coverage that might be instructive for journalists of today and tomorrow who may be called on to cover the perils of the new phase of nuclear terrorism and time bombs. To avoid Laurence’s conflict-of-interest problems, reporters need to be given ethical guidance on material facts that are essential for inclusion for comprehensive news coverage, real or potential ethical problems need to be discussed and sources offering a wide array of differing views, especially on controversial aspects, need to be regularly contacted. Unlike Laurence’s detailed technical explanations of atomic bomb-making, today’s reporters and editors need more education and training to familiarize them with the history, hazards and intricacies of nuclear-related developments, especially in light of increased reports of possible terrorist attacks in communities across the nation. In coverage of the Chernobyl power plant accident in 1986 in the Soviet Union, for example, five U.S. newspapers and three television networks provided an inadequate amount of radiation or risk information and several other deficiencies were also noted, a content analysis made by three communication scholars found. They quoted from an earlier task force that had studied the Three Mile Island accident: “Perhaps the most important information the public needs to know during a nuclear accident is how much radiation, if any, is escaping from the plant and whether that radiation poses a hazard to health.”<sup>32</sup> Another communication scholar found that U.S. press coverage of Chernobyl was “in many ways a replay” of the Three Mile Island nuclear power accident seven years earlier outside of Harrisburg, Pennsylvania.<sup>33</sup> As a beginning, minimizing the news neglect of the past might occur by adopting at least eight news practices that follow.

1. Describe in each news item the long persistence of radioactivity and the hazards of adding more of it to the environment when covering new proposals to re-nuclearize the U.S. military and energy sectors. This practice would address *The Times* skimpy mentions of radiation and radioactivity in its news items at the dawn of the atomic age and its omission of plutonium's 500,000-year radioactive existence.
2. Refer specifically to nuclear arms as being in a class by themselves rather than lumped under the general term "weapons of mass destruction"; biological and chemical weapons are many orders of magnitude less dangerous in longevity and reach. Today's loose and illogical blurring of terminology used by the Bush Administration need not be accepted by journalists now any more than *Timesmen* in the 1950s had to echo the illogical label of the Eisenhower Administration of "humanized" or "clean" H-bombs (which they did) or, as discussed in Chapter 5, to adhere to its policy of keeping the public confused about the difference between atomic and thermonuclear weapons.
3. Insist on access to the complete backup studies or data when U.S. officials claim nuclear weapons effects pose no risk to human health or environment, a stance generally taken by Atomic Energy Commission officials during the testing period and one used recently at a Pentagon briefing on shells tipped with depleted uranium. If such data are not provided, probe why and ascertain when they will be. This practice would address the lack of credibility of the U.S. government on this point when, decades after the fact, it has agreed to compensate veterans, workers and Marshall Islanders for radiation-caused injuries.
4. Query officials about the long-term effects of nuclear-related proposals that may lie outside the data being offered, especially in light of the long latency period for certain cancers. Adding more radioactivity to the environment, which is now largely un-monitored, can affect others worldwide, much as global warming does.
5. Evaluate the methodology used in studies that U.S. officials rely on in making no-risk-to-the-public assertions by applying criteria adopted by some courts in weighing scientific evidence: whether the methodology or theory was peer-



- reviewed or published and accepted generally in the scientific community, its rate of error and whether opposing data exist.<sup>34</sup> Explain whether the study relies on radiation exposure limits applicable either to workers or to members of the public, especially because these limits have progressively been lowered by official bodies over the past 50 years and may again soon be lowered.<sup>35</sup> Seek additional comments from non-governmental, even oppositional, experts.
6. With millions of dollars spent annually on researching the causes of cancer, probe and write about the extent of cancer caused by nuclear weapons testing. This news practice would address nationwide *The Times*' neglecting from 1980-2004 to cover the documented nuclear-related medical conditions of the Bravo-dusted islanders.
  7. Cajole U.S. officials into justifying secrecy requirements by probing how national security would be hampered if official information were released and whether any legal action or adverse publicity is involved; write about information being withheld from the public, especially because increases in radiation and radioactive fallout can potentially affect other nations' citizens, as was demonstrated clearly with the monstrous 1954 Bravo blast; also use the Freedom of Information Act more frequently to gain access to government records and write news articles if these are denied to the reporter—and hence the public.
  8. Avoid Laurence's practices of over-using references to Judeo-Christian or Euro-American traditions in describing the awesomeness of nuclear weapons blasts. As detailed below, this underlying problem continues at *The Times*.

## No. 6: Challenging Government Secrecy

This examination highlights the consequences of the glaring timidity of a leader of the free press to challenge the government's overly broad secrecy pronouncements that used the guise of national security to hide information about official actions and policies that might prompt public protests or lawsuits. News articles need to spell out for readers the reasons for government secrecy, the circumstances when reporters ask questions that officials refuse to answer

and even the reasons the government is not collecting information that is vital to public health or safety. Filing Freedom of Information Act requests to obtain executive-branch documents needs to become more routine and when documents are not forthcoming appeals to Congress or the courts need to be made and made public.

Monitoring those in power—and powerful institutions—has become increasingly significant because the economic concentration of ownership has made the news media themselves such a key element in the nation's power structure. Monitoring the powerful may be increasingly significant if the news media are to maintain credibility with today's readers and viewers who have Internet access to facts and opinions from all parts of the world. Moreover, failure of U.S. personnel to locate Iraq's "weapons of mass destruction," which were the prime justification for U.S. attack on Iraq, indicates that journalists need to press earlier for more detailed information so that critical policies can be more vigorously discussed before they are initiated.

## **No. 7: Covering Congress Via Enterprise Reporting**

In the 24 years following June 1, 1980, *The Times* neglected to access systematically and study Congressional reports and transcripts of hearings or to attend sessions that exposed the bitter side of the legacy of the U.S. Pacific nuclear weapons testing program and the continuation of U.S. bureaucratic neglect and maladministration of the islanders. Even if individual Congressional meetings did not then deserve spot-news coverage, the detailed testimonies resulting from them warrant more careful scrutiny by enterprising reporters of the famed I.F. Stone mold. A more professional approach needs to be instituted to access and assess the newsworthiness of the vast amount of print, video and electronic data generated by Congress and its agencies, by the executive branch, non-profit agencies, academic institutions and even non-institutional sources such as dissident groups.

Systematizing this scanning and assessing operation would release the news media from such heavy reliance on official sources and on interviewing as the chief mode of information-gathering.

## No. 8: Being Cautious about Anniversary Journalism

The Euro-American or Judeo-Christian perspectives often included in *Times* articles, describing the combat use or testing of nuclear weapons in the Pacific while they were taking place, should alert news staff members and readers to be cautious about anniversary journalism. The narrow descriptions of the past need to be stretched to panoramic width so as to expose earlier blind spots or neglected voices and to incorporate fresh research. The reason for the stretching is, as Jill A. Edy noted, that the news media are “extremely important to the construction and maintenance of a national collective memory in the 20th century.” Moreover, she explains in an observation directly applicable to the Marshall Islanders, journalists’ work “impacts whether we remember our past at all.”<sup>36</sup>

During the testing period, *The Times* often published commemorative articles that perpetuated a one-sided version of the past about the scientific achievement and dramatic history of the atom’s first self-perpetuating chain reaction on December 2, 1942 but was silent on the impact of those feats on its victims.<sup>37</sup>

Over the years, *The Times* neglected to provide editorials, news analyses or enterprise articles that told of the scope and legacy of the effects of atom-splitting on humans and the environment in Japan and the Pacific region. Victims of the Hiroshima A-bombing also held anniversary demonstrations but those were often articles of only several paragraphs that *The Times* placed on inside pages. This caution about perpetuating the frames of the past is timely because of the current practice of *The Times* of putting on its website numerous articles about a historic event and an online version of every article it has published since 1851. *The Times* credibility of serving historians and others as a newspaper of record might also be viewed with great caution on the topic and the legacy of the U.S. Pacific nuclear weapons tests unless omissions from its newspapers are noted about radiation and its effects on Marshallese and their environment.

An examination of the pitfalls of relying on material in *The Times* electronic archives was revealed in September 2003 in a revised master’s thesis by Columbia Journalism School graduate Milton Allimadi and distributed on the FAIR.ORG website. Under the title, “Inventing Africa,” Allimadi described his study of letters

in *The Times* closed archives compared to its published articles as revealing “a history of racist fabrication.”

Earlier, in 1986, Deborah E. Lipstadt wrote a pathbreaking book detailing the subdued coverage by *The Times*, in particular, and some other U.S. newspapers in general about “the coming of the Holocaust” during the accelerating, horrifying process from 1933 to 1945. She speculated that the Jewish owners of *The Times* did not want its coverage to appear “too Jewish.” But she ventured, “Had *The Times* reacted with less equanimity, it is possible that other American papers would have followed suit.” Karl Grossman, in an article titled “Holocaust: Back-Page News,” describes an exhibit in Philadelphia in 1987 at the National Museum of American Jewish History. The exhibit displayed enlarged photocopies of *Times* articles that gave short shrift to horrifying reports of thousands of Eastern European Jews being uprooted and destroyed, thus giving the public and the policymakers less information than they should have received for such a gruesome, systematic onslaught. The narrative discussing the subsequent exhibit indicated, “Setting the tone for coverage in the general press, *The New York Times* downplayed reports of the planned destruction of Eastern European Jewry.”

History might have unfolded quite differently if *The Times* had reported the Holocaust more prominently and vigorously, as Lipstadt states. History might also have unfolded quite differently if *The Times* had given more than News-Zero coverage of the effects and near-eternity of stealth radioactivity emanating from the nuclear holocaust that transformed paradise. Improving the next rough drafts of history published in *The Times* is clearly called for.<sup>38</sup>

Initiating the above eight recommendations might help to ensure that Ochs’ four principles are implemented in practice and adopted systematically so as to better expose the bitter legacy of Pacific nuclear weapons tests that helped to catapult the United States to its sole military superpower status today. These recommendations provide an initial template for the journalists of today and tomorrow. And they make clear to readers worldwide that for their own protection and edification they must join in across-the-spectrum efforts being made at many levels to improve news coverage in *The Times* in this new, harrowing phase of the nuclear age.

# APPENDIX

## *Methodology*

The central argument of this book was arrived at by conducting interdisciplinary research employing quantitative and qualitative methods. A historical framework was utilized for both methods. The unit of analysis was a news item from *The Times*. A news item was defined as a news or news analysis article, feature story, editorial, opinion column, letter to the editor, photograph or drawing/illustration.

Multiple ways were used to retrieve source information:

- a request for a 161-page summary of the contents of 27 boxes of U.S. declassified documents released in the 1990s to the Republic of the Marshall Islands in response to that government's Freedom of Information Act request;
- a full-text keyword search of the commercial Nexis computerized database and *The Times* online archive, using several relevant search terms, conducted by this writer; more than 1,300 online articles were accessed;
- a search of Medline at the Hawaii Medical Library conducted by a specialized librarian on genetic effects and radioactivity;
- traditional or Internet searching for academic and U.S. or other official materials in a research library;
- a page-by-page scan of *Times* news sections for three days after dates of U.S. Pacific nuclear tests or key developments such as the United Nations' decision-making on the relevant U.S. Pacific Island Trusteeship;
- a close reading of the set of indexes to *The Times*—which it advertises on its title page as “the master key to the news”—from which more than 3,000 selected articles were copied from microfilm readers.

### **1994 Official List of All Completed U.S. Nuclear Tests**

Especially valuable for writing this book has been a 1994 document compiled by the U.S. Department of Energy, the agency suc-

ceeding the Atomic Energy Commission that was responsible for U.S. Pacific nuclear weapons testing from 1946-62 and beyond. It is titled U.S. Department of Energy, "United States Nuclear Tests, July 1945 through September 1992." (Hereinafter referred to as the "1994 DOE list").<sup>1</sup> On the first page, the document indicates it lists "all of the nuclear tests and simultaneous detonations by the United States" covering the dates in the title. Excluded from this list are the atomic bombs annihilating Hiroshima and Nagasaki in 1945 because these were not considered "tests" in the usual sense but were for combat purposes. Also excluded by DOE is an unspecified number of tests involving missile launches at Johnston Island that were aborted, "resulting in the destruction of the missile and nuclear device either on the pad or in the air." Four of these failed tests are included in this study, as described below.

This DOE list provided, for the first time, comprehensive official statistics and other data that could serve as a baseline to put U.S. Pacific nuclear weapons testing into a proper historical perspective within the larger U.S. nuclear program. It also provided a fixed list, by date and test codename, against which articles by *The Times* could be retrieved and then assessed, thus enabling a cross-checking with *The Times* indexing of atomic-weapons articles. The DOE list was released shortly after new disclosures were made in Washington in late 1993 by Department of Energy Secretary Hazel O'Leary. She revealed for the first time that the DOE had secretly conducted 204 previously unannounced underground nuclear tests in Nevada from 1963 to 1990.<sup>2</sup>

The 1994 DOE list gives the following geographic breakdown of 82 completed tests in the U.S.-affiliated Pacific region and near-by waters:

Bikini Atoll 23  
Enewetak Atoll 43  
Johnston Island 12  
Pacific 4

TOTAL COMPLETED TESTS 82

As discussed earlier, four failed tests in 1962, not on the 1994 DOE list, were also studied. An additional 24 U.S. tests on the 1994 DOE list were conducted in 1962 at or near the British-controlled

Christmas Island. These 24 tests are excluded from this book largely because the operational terms for conducting them were unclear and because British law excludes any legal protections for the press comparable to the First Amendment, thus subjecting journalists to an onerous Official Secrets Act.

The four tests described in this DOE list as having taken place in the “Pacific” were:

- Operation Wigwam, a weapons-effect test of a 30-kiloton device conducted on May 14, 1955, some 500 miles south-southwest of Los Angeles.
- The Swordfish shot in Operation Dominic, a weapons-effect test of a “low”-yield antisubmarine rocket system on May 11, 1962, some 300 miles south-southwest of Los Angeles.
- The Frigate Bird test, also part of Operation Dominic, which was a missile launched on May 6, 1962, from a Polaris submarine; no yield is listed for this shot conducted some 1,350 miles south-southeast of Honolulu.
- An Operation Newsreel shot involving a 1.7-kiloton device that was detonated from a balloon about 100 miles north of Enewetak on April 28, 1958, by the Department of Defense.

Appendix Table 1 on the pages that follow contains in its first six columns the Pacific number (“Pac. No.”), the Department of Energy number (“DOE No.”), the test name, test date, location (“Place”) and the yield in kilotons of each of the 86 completed and failed tests. All 86 Pacific nuclear weapons tests were conducted in the atmosphere or underwater. Alongside each test is then listed *The Times* coverage of it. Four columns relating to *The Times* coverage of each test contain the date the newspaper article was published (Nswp Date), the dateline, short, distinctive description of the test in the article (NYT desc.) and the page on which the article was published. Continuations of the article are also detailed on the line below the main article.

**APPENDIX TABLE 1**  
**U.S. NUCLEAR TESTS IN THE U.S. - ADMINISTERED PACIFIC ISLANDS 1946 THROUGH 1962 AND**  
**THE NEW YORK TIMES COVERAGE OF THEM**

P a c.  N o.	D. O. E.  N o.	Test Name	Test Date	P l a c e	Yield in KT	Nwsp Date	Date Line	NYT Desc.	P a g e
<b>1946 - OPERATION CROSSROADS</b>									
1	2	Able	06/30	B	21	07/01	Blk	4th	1
						[Continued Article]			4
2	3	Baker	07/24	B	21	07/25	Bik	5th	1
						[Continued Article]			2
<b>1948 - OPERATION SANDSTONE</b>									
3	4	X-Ray	04/14	E	37	04/20	Wn	1st	1
						[Continued article]			2
4	5	Yoke	04/30	E	49	[No article]			
5	6	Zebra	05/14	E	18	05/18	Wn	3 Tests	1
						[Continued article]			9
<b>1951-OPERATION GREENHOUSE</b>									
6	12	Dog	04/07	E	81	[No article]			
7	13	Easy	04/20	E	47	[No article]			
8	14	George	05/08	E	225	05/12	Hnl		4
9	15	Item	05/24	E	46	05/26	Wn	Hbomb	1
						[Continued article]			9
<b>1952-OPERATION IVY</b>									
10	31	Mike	10/31	E	10,400	[No article]			
11	32	King	11/15	E	500	11/17	Wn	Hbomb	1
						[Continued article]			3
<b>1954-OPERATION CASTLE</b>									
12	44	Bravo	02/28	B	15,000	03/02	Wn	1st	1
						[Continued article]			6
13	45	Romeo	03/26	B	11,000	03/30	Wn	2nd	1
						[Continued article]			8
14	46	Koon	04/06	B	110	04/08	Wn	3rd	1
						[Continued article]			18
15	47	Union	04/25	B	6,900	05/08	Tok	4th	11



**APPENDIX TABLE 1 (Cont.)**  
**U.S. NUCLEAR TESTS IN THE U.S. - ADMINISTERED PACIFIC ISLANDS 1946 THROUGH 1962 AND**  
**THE NEW YORK TIMES COVERAGE OF THEM**

P a c.  N o.	D. O. E.  N o.	Test Name	Test Date	P l a c e	Yield in KT	Nwsp Date	Date Line	NYT Desc.	P a g e
16	48	Yankee	05/04	B	13,500		[No article]		
17	49	Nectar	05/13	E	1,690		[No article]		
<b>1955-OPERATION WIGWAM</b>									
18	64	Wigwam	05/14	P	30	05/18	Wn		11
<b>1956-OPERATION REDWING</b>									
19	69	Lacrosse	05/04	E	40	05/05	Ene	1st	1
						[Continued article]			10
20	70	Cherokee	05/20	B	3,800	05/21	Bik	Hbomb	1
						[Continued article]			16
21	71	Zuni	05/27	B	3,500	05/28	Tok		1
						[Continued article]			4
22	72	Yuma	05/27	E	0.19	06/26	Tok	Hbomb	11
23	73	Erie	05/30	E	15	[No article]			
24	74	Seminole	06/06	E	14	[No article]			
25	75	Flathead	06/11	B	365	[No article]			
26	76	Blackfoot	06/11	E	8	[No article]			
27	77	Kickapoo	06/13	E	1	07/23	Tok	7 Tests	3
28	78	Osage	06/16	E	2	[No article]			
29	79	Inca	06/21	E	15	[No article]			
30	80	Dakota	06/25	B	1,100	07/23	Tok	7 Tests	3
31	81	Mohawk	07/02	E	360	07/08	Tok	Missle	5
32	82	Apache	07/08	E	1,850	07/09	Tok		12
33	83	Navajo	07/10	B	4,500	07/23	Tok	7 Tests	3
34	84	Tewa	07/20	B	5,000	07/23	Tok	7 Tests	3
35	85	Huron	07/21	E	250	[No article]			
<b>1958-OPERATION NEWSREEL</b>									
36	120	Yucca	04/28	P	2	05/08	Wn	1st	1
						[Continued article]			9

**APPENDIX TABLE 1 (Cont.)**  
**U.S. NUCLEAR TESTS IN THE U.S. - ADMINISTERED PACIFIC ISLANDS 1946 THROUGH 1962 AND**  
**THE NEW YORK TIMES COVERAGE OF THEM**

P a c.  N o.	D. O. E.  N o.	Test Name	Test Date	P l a c e	Yield in KT	Nwsp Date	Date Line	NYT Desc.	P a g e
37	151	Teak	08/01	J	3,800	08/02	Wn	J.I.	1
						[Continued article]			6
38	153	Orange	08/12	J	3,800	08/13	Hnl	Missile	11
<b>1958-OPERATION HARDTACK I</b>									
39	121	Cactus	05/05	E	18	[No article]			
40	122	Fir	05/11	B	1,360	[No article]			
41	123	Butternut	05/11	E	81	05/13	Wn	3rd	12
42	124	Koa	05/12	E	1,370	[No article]			
43	125	Wahoo	05/16	E	9	[No article]			
44	126	Holly	05/20	E	6	[No article]			
45	127	Nutmeg	05/21	B	25	[No article]			
46	128	Yellowwood	05/26	E	330	05/27	Wn	4th	16
47	129	Magnolia	05/26	E	57	[No article]			
48	130	Tobacco	05/30	E	12	[No article]			
49	131	Sycamore	05/31	B	92	[No article]			
50	132	Rose	06/02	E	15	[No article]			
51	133	Umbrella	06/08	E	8	[No article]			
52	134	Maple	06/10	B	213	06/11	Wn	5th	17
53	135	Aspen	06/14	B	319	[No article]			
54	136	Walnut	06/14	E	1,450	06/15	Wn	6, 7	27
55	137	Linden	06/18	E	11	[No article]			
56	138	Redwood	06/27	B	412	[No article]			
57	139	Elder	06/27	E	880	[No article]			
58	140	Oak	06/28	E	8,900	06/29	Wn	10th	5
59	141	Hickory	06/29	B	14	[No article]			
60	142	Sequoia	07/01	E	5	[No article]			
61	143	Cedar	07/02	B	220	07/03	Wn		3
62	144	Dogwood	07/05	E	397	07/06	Wn		34
63	145	Poplar	07/12	B	9,300	07/13	Wn	13th	2

**APPENDIX TABLE 1 (Cont.)**  
**U.S. NUCLEAR TESTS IN THE U.S. - ADMINISTERED PACIFIC ISLANDS 1946 THROUGH 1962 AND**  
**THE NEW YORK TIMES COVERAGE OF THEM**

P a c.  N o.	D. O. E.  N o.	Test Name	Test Date	P l a c e	Yield in KT	Nwsp Date	Date Line	NYT Desc.	P a g e
64	146	Scaevola	07/14	E	0	[No article]			
65	147	Pisonia	07/17	E	255	[No article]			
66	148	Juniper	07/22	B	65	[No article]			
67	149	Olive	07/22	E	202	[No article]			
68	150	Pine	07/26	E	2,000	07/27	Wn	14th	60
69	152	Quince	08/06	E	0	[No article]			
70	154	Fig	08/18	E	0.02	[No article]			
<b>1962-OPERATION DOMINIC</b>									
71	232	Frigate Bird	05/06	P	0	05/07	Wn	Missile	1
						[Continued article]			14
72	238	Swordfish	05/11	P	1 to 19	[No article]			
73	280	Androscoggin	10/02	J	75	10/03	Wn	1st	17
74	282	Bumping	10/06	J	11	[No article]			
75	285	Chama	10/18	J	1,590	10/19	Wn	J.I.	2
76	291	Calamity	10/27	J	800	10/28	Wn		63
77	292	Housatonic	10/30	J	8,300	10/31	Wn	J. I.	1
						[Continued article]			20
<b>1962-OPERATION FISHBOWL</b>									
78	266	Starfish Prime	07/09	J	1,400	07/10	Wn		1
						[Continued article]			18
79	288	Checkmate	10/20	J	1 to 19	10/21	Hnl		1
						[Continued article]			39
80	289	Bluegill 3 Prime	10/26	J	201 to 999	10/27	Hnl	Thor	4
81	293	Kingfish	11/01	J	201 to 999	11/02	Wn		1
						[Continued article]			6
82	294	Tightrope	11/04	J	1 to 19	11/05	Wn	Last	1
						[Continued article]			9

**APPENDIX TABLE 1 (Cont.)**  
**U.S. NUCLEAR TESTS IN THE U.S. - ADMINISTERED PACIFIC ISLANDS 1946 THROUGH 1962 AND**  
**THE NEW YORK TIMES COVERAGE OF THEM**

P a c.  N o.	D. O. E.  N o.	Test Name	Test Date	P l a c e	Yield in KT	Nwsp Date	Date Line	NYT Desc.	P a g e
<b>1962-FAILED TEST</b>									
83		Bluegill	06/02	J	0	06/05	Wn	Hbomb	1
						[Continued article]			7
84		Starfish	06/19	J	0	06/21	Hnl	Hbomb	1
						[Continued article]			13
85		Bluefish Prime	07/25	J	0	07/27	Wn	Thor	1
						[Continued article]			2
86		Bluegill D Prime	10/15	J	0	10/17	Wn		1
						[Continued article]			9

**Key for Pac. No.:** Number of Pacific test assigned for this study

**Key for DOE No.:** DOE number assigned each test nationally and chronologically

**Key for Place:** "B"-Bikini; "E"-Eniwetak; "J"-Johnston Island; "P"-Pacific Ocean

**Key for Date Line:** "Bik"-Bikini; "Ene"-Eniwetak; "Hnl"-Honolulu; "Tok"-Tokyo; "Wn" Washington, D.C.

**Source for Pacific Tests 1 to 82:** United States Department of Energy, "United States Nuclear Tests, July 1945 through September 1992" (USDOE Nevada Operations Office, Las Vegas, Nev., Office of External Affairs, December 1994).

**Source for Pacific Tests 83 to 86:** Thomas B. Cochran, William M. Arkin, Robert S. Norris, and Milton B. Loenig, *Nuclear Weapons Databook, Volume 2, U.S. Nuclear Warhead Production* (Cambridge, Mass.; Ballinger Publishing, 1987), 160. This *Databook* based its description on official lists and on tests not announced by the United States government but detected by seismic means and made public by scientific institutions, 151. Its listing covers July 1945 through December 31, 1985, 151-176.

## Scant Literature to Review

Few studies have assessed U.S. press coverage of the dawn of the atomic age. Communication scholars David M. Rubin and Constance Cummings surveyed, in 1989, nearly a half-century of academic research and found that their colleagues over the years have not often studied in detail media performance in “presenting images of, and information about, nuclear war and its consequences.” They also found that television may be “a silent, willing partner of government in keeping nuclear issues below the threshold of national consciousness.”<sup>3</sup>

These co-authors’ findings about the scantiness of academic research is also borne out by this writer’s searching for and finding only three articles<sup>4</sup> on atomic bomb coverage listed in Wm. David Sloan’s *American Journalism History: An Annotated Bibliography*.<sup>5</sup> The three articles were descriptive, rather than analytical or theoretical. Culled from 200 history and journalism-related journals plus books, the bibliography compiled 2,657 entries that discussed journalism from 1690 through 1989.

Articles written by opinion columnists were analyzed by several scholars in the mid-1900s. An analysis of the articles written by 14 syndicated opinion columnists across the political spectrum led two scholars, Janet Besse and Harold D. Lasswell, to conclude it was unclear whether columnists were much ahead or behind general opinion.<sup>6</sup> An analysis of the work of five columnists relating to nuclear weapons testing and radioactive fallout following the infamous Bravo shot of March 1, 1954, was described as inconclusive by scholar Eugene Rosi.<sup>7</sup>

Rosi also examined 81 *New York Times* editorials on the nuclear test ban from 1954-58 and radioactive fallout controversies and found that they were “one-sided and unsystematic, at least until 1958 ... and appeared to accept much Administration policy uncritically.”<sup>8</sup>

An across-time study from 1945-65, on atmospheric nuclear testing published in 925 magazine articles was made by doctoral student Frederick O’Hara Jr. He found no direct cause-and-effect relationship between magazine content, public opinion and government policy, but correlations showed that the press plays a very active role in informing people about the facts and issues involved in scientific crises.<sup>9</sup>

After the first two U.S. nuclear tests in the Pacific, journalist-turned-scientist Neal O. Hines evaluated *The Times* and four other newspapers for the month of August 1947.

Hines noted an important, early link between newspapers and atomic energy:

Many times since August 1945 the newspaper has been termed the primary agency for mass education in the field of atomic energy. The scientists have turned repeatedly to the press ... and the newspaper itself has reflected the nation's bewilderment at the release of fundamental force.<sup>10</sup>

## **Methodology for Chapter 1: Tracing *Times* Principles**

In Chapter 1, the tracing of principles and practices of *The Times*—or broadly speaking its news values—that were used to assess its performance is based principally on a close reading of numerous sources written, commissioned or authorized by *The Times* about *The Times*. These sources include tens of articles published in *The Times* about *The Times* and its personnel and books commissioned by *The Times* to memorialize its key moments:

- the 25th anniversary of the Ochs' newspaper in 1921;<sup>11</sup>
- the centennial of the founding of *The Times* in 1851<sup>12</sup> and
- the centennial of Adolph S. Ochs' purchase of *The Times* in 1896.<sup>13</sup>

Also consulted were three other books produced with the cooperation of *The Times* management and personnel.<sup>14</sup>

This tracing of principles of *The Times* is also based on the oral histories of two of its award-winning specialized reporters, who were eyewitnesses of the Pacific nuclear tests, William L. Laurence and Hanson Baldwin.<sup>15</sup> Also consulted were textbooks and other scholarly or professional materials.

## **Methodology for Chapters 2-4: From the Basement of *The Times* to Various Readings**

The methodology for Chapter 2 is described extensively in the

---

footnotes about materials accessed from visiting the archives of *The Times* in the basement of the 43rd Street building near Times Square. Research for Chapter 3 involved reading about the early atomic detonations and the official decision-making in Congress or at the United Nations and then locating *Times* articles covering events during the period. The conclusions of the landmark 1996 International Court of Justice advisory opinion discussed in Chapter 3 are summarized in Appendix Table 2 that follows. Chapter 4 involved an interview cited in the endnotes, extensive reading about Marshallese history and culture and accessing some articles from microfilm or from *The Times* online archive.

**APPENDIX TABLE 2**  
**CONCLUSIONS OF THE 1996 WORLD COURT DECISION ON**  
**THE LEGALITY OF THE USE OR THREAT OF**  
**NUCLEAR WEAPONS**  
([www.icj-cij.org/icjwww/icasess/iunan/iuananframe.htm](http://www.icj-cij.org/icjwww/icasess/iunan/iuananframe.htm))

- “There is in neither customary nor conventional international law any specific authorization of the threat or use of nuclear weapons;” (Para. 105 (2)(A)-Unanimous by 14 judges)
- “There is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such;” (Para. 105 (2)(B)-11 votes to three)
- “A threat or use of force by means of nuclear weapons that is contrary to Article 2, paragraph 4 of the United Nations Charter [nations must normally refrain from the threat or use of force in international relations] and that fails to meet all the requirements of Article 51 [inherent right of self-defense but force used must be necessary and proportionate to the threat] is unlawful;” (Para. 105 (2)(C)-Unanimous)
- “A threat or use of nuclear weapons should also be compatible with the requirements of the international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons;” (Para. 105(2)(D)-Unanimous)
- “It follows from the above-mentioned requirements that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law; however, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake;” (Para. 105(2)(E)-Seven votes to seven, decided by the President’s casting vote under the Court Rules)



## Methodology for Chapters 5-9

### The Official List + *Times* Annual Indexes

Research for Chapter 5 was based on an analysis of the data contained in the 1994 DOE list described above and then using that data to locate *Times* articles. The articles were then retrieved, tabulated and studied.

Methodology for Chapter 6 entailed selecting a sampling of articles on relevant press-government relations between 1946-62. This sampling of 126 articles on news and government relations resulted from using *The Times* annual indexes from 1946-62, searching the heading of *news and newspapers* and then the subheading of U.S. This subheading covered core areas of overlap between news and U.S. government policy and operations at all levels and all branches. Subjects of articles ranged from assaults on newsmen, denial of access to records, contempt-of-court confinement for journalists' refusal to name sources and Congressional investigations of journalists. Because the index descriptors were so sketchy—such as “freedom of press”—many articles had to be accessed and read closely to ascertain whether atomic-related matters were mentioned.

For Chapter 7, plutonium was selected as the man-made radioactive element to be analyzed. Unlike other newspapers, *The Times* produced an annual index for this period that listed *plutonium* as a heading, thus making it the nation's only newspaper permitting such retrospective tracking of this subject. From these index headings and from cross-references to plutonium in other articles, news items on this element were then retrieved and analyzed.

During the 1946-62 testing period, *The Times* index, which advertised itself as “the master key to the news,” provided detailed highlights of news worldwide on the topic of atomic weapons testing. The most significant index subject heading used from 1946-62 was *atomic energy*, which included all aspects of atomic-related entries or else cross-references to other entries. It was organized geographically by the United States and other countries as well as by subtopics such as *miscellaneous*. A subdivision under the United States included *weapons testing*, which then listed matters related to all U.S. nuclear experiments. Other subject headings searched in the index for this book were Bikini, Enewetak (various spellings), Far East—Pacific areas (shortly after World War II), Kwajalein,

Marianas, Marshall Islands, Micronesia, plutonium and the U.S. subheading of Territories and Island possessions that, after 1947, were described as Pacific Trust areas.

Once articles were located and retrieved, both qualitative and quantitative methods were used to analyze them. In Chapter 7, for example, the quantitative method was used to analyze the content of 128 articles *The Times* published from 1946-62 about plutonium. Standard content analysis procedures were utilized.<sup>16</sup>

For Chapter 8, transcripts of Congressional hearings were also accessed and compared with articles in *The Times*. Appendix Table 3 that follows explains the results of this analysis in more detail than is provided in Chapter 8.

Appendix Table 3 contains in its first five columns: 1) the House or Senate body, 2) the name of the legislative measure or the committee holding the hearing, 3) the date of the 1946 Congressional activity, 4) total number of pages in the official transcript of that activity and 5) the number of these pages devoted to the Pacific people. Alongside each Congressional activity is then listed *Times* coverage of it. Four columns about each activity contains: 6) the date the newspaper was published, 7) the page on which the article was published, 8) the total number of paragraphs in the article, 9) the total number of paragraphs about nuclear Pacific matters.

In Appendix Table 3, columns 4 and 5 show in the line reading "total for hearings" that Congressional committees devoted only two pages out of the 79 pages of documentary transcripts of hearings to discussing the Pacific Islanders. *The Times* also gave the Pacific Islanders scant attention. As shown in Columns 8 and 9, the *Times* devoted 4.5 of 47 paragraphs to these islanders in its coverage of these hearings. Two hearings were not covered by *The Times*, including one in which officials discussed the dangers of radioactivity arising from Operation Crossroads. All eight of the sources cited in *The Times* articles about committee hearings were government officials.

For the floor sessions, this pattern reveals even skimpier attention to the Pacific Islanders. For the "total for floor sessions" at the bottom of the table, columns 4 and 5 show that only one-quarter of a page of the 14.5 total pages of Congressional transcripts discussed the islanders. In its coverage of these sessions, columns 8 and 9 show

that *The Times* devoted no space to the Pacific Islanders out of a total of 26 paragraphs published. All six of the sources used in the 26 paragraphs were U.S. officials.

APPENDIX TABLE 3 1946 CONGRESSIONAL ACTION ON OPERATION CROSSROADS AND <i>THE NEW YORK TIMES</i> COVERAGE								
1	2	3	4	5	6	7	8	9
Sen Hse	Subject/ Name/ Committee	Date	Tot Pgs	Pac Pgs	Newspaper Date	On Pg	Tot Par	Nuc Pac Par
<b>Documents on Hearings</b>					<b><i>The New York Times</i></b>			
S	S. Res. 1	01/24	8	1	01/25	1	41	3.5
					[Continued]	4	1	1
H	HJR 307	01/29	33	.5	01/31	8	5	0
		01/30	[Continued hearing - statistics included in line above]					
S	Nav. Aff.	03/19	15	.5	[None]			
S	Nav. Aff.	04/18	23	0	[None]			
<b>Total for hearings</b>			<b>79</b>	<b>2</b>			<b>47</b>	<b>4.5</b>
<b>Documents on Floor Sessions</b>					<b><i>The New York Times</i></b>			
S	Huffman	03/29	5.5	.25	03/30	1	14	0
H	Ludlow	04/18	1	0	[None]			
S	Huffman	06/14	8	0	06/15	4	12	0
<b>Total for floor sessions</b>			<b>14.5</b>	<b>.25</b>			<b>26</b>	<b>0</b>

## Methodology for Chapter 10: 24-Year, Full-Text Database Searches

Valuable for researching recent *Times* coverage studied for Chapter 10 were the articles gleaned from keyword, full-text searches of thousands of *Times* articles in the commercial Nexis database for 20 years beginning June 1, 1980 and *The Times* electronic archive from June 2, 2000 to January 15, 2004, which was accessed the next day.

These two databases store and permit full-text access to *Times* articles from June 1, 1980 to the present. Thus, no matter in what section in *The Times* a word appears, the article containing it could be accessed online within 24 hours of its publication so it could then

be downloaded or printed. These databases permit an unparalleled research tool for a writer working single-handedly to cover a 24-year sweep of time during which a specific word or words were published.

The Nexis database containing full-text articles of *The Times* is provided by Lexis-Nexis, P.O. Box 933, Dayton, Ohio, a member of the Reed Elsevier PLC group. The search for this book began with June 1, 1980, the earliest date that the database contained the full-text of *Times* articles. The search was conducted by the author on June 1-4, 2000 and articles were read online. Selected articles were downloaded and printed. The Nexis database might not contain certain articles distributed by The Associated Press and published in *The Times* without editorial additions from its own staff. *The Times* archive with articles dating from 1851, is accessible at [www.nytimes.com](http://www.nytimes.com).

The database searches picked up variations of the term *bikini*, whether in capitals or lower case or in plural form. Various spellings of *Enewetak* were used as search terms, including *Eniwetak*, *Eniwetok*; the alternate spelling of *Eniewtok* was also automatically retrieved by the Nexis program.

Thus, a variety of traditional and electronic means were used to retrieve articles from *The New York Times*. These then were treated as primary source material for assessing its performance in covering the greatest news story in history and pre-history, one in which humankind had developed weapons that imperiled the entire planet for ages to come.

# Notes

## Introduction

- 1 This passage on his experience and thoughts is drawn from William L. Laurence, *Men and Atoms: The Discovery, the Uses and the Future of Atomic Energy* (New York: Simon and Schuster, 1959), 3-16, 56-62, 88-94, 112-13; quotes are at 6, 113. The term *Timesman* to refer to this news staff is apt. It and executives of *The Times* were overwhelmingly Caucasian male during the Pacific nuclear testing period and until class action lawsuits in the 1970s by women and African Americans alleging discrimination prompted *The Times* to begin hiring more from these two groups.
- 2 William L. Laurence, "Lightning Blew Up Dummy Atom Bomb," *The New York Times* [hereinafter NYT], 27 September 1945, 7.
- 3 As a matter of style throughout this book, when the terms *The Times* or *The New York Times* modifies a noun, it is used as an adjective, rather than as a possessive, and thus carries no apostrophe.
- 4 Warren Shields, "Shattuck Lecture: You, Your Patients and Radioactive Fallout," *The New England Journal of Medicine*, 226, no. 22 (31 May, 1962), 1123-1125, esp. 1124.
- 5 Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), 4, 224, 243, 306.
- 6 Radiation refers to the moment in which a radioactive substance is converting matter to energy by undergoing spontaneous decay; radioactivity refers to the potential of a substance to undergo spontaneous decay at a future time and rate, according to John W. Gofman, *Radiation and Human Health* (San Francisco: Sierra Club Books, 1981), 35-36.
- 7 Merrill Eisenbud and Thomas Gesell, *Environmental Radioactivity: From Natural, Industrial and Military Sources*, 4th ed. (San Diego: Academic Press, 1997), 26.
- 8 R. D. Small, "Fallout Models—Past, Present and Future," in *Nuclear Test Explosions: Environmental and Human Impacts*, ed. Sir Frederick Warner and Rene J.C. Kirchmann (Chichester, England: John Wiley & Sons, 2000), 229.
- 9 The Associated Press [Jim Fitzgerald], "Residents near nuclear plant get anti-radiation pills," *The Honolulu Advertiser*, 9 June 2002, A19; The Associated Press [Mark Sherman], "Government stores nuclear waste in tents," *Honolulu Star-Bulletin*, 7 June 2002, A10; 6 p.m. news on KITV TheHawaiiChannel.com about "Hawaii scientists study possible nuclear fallout," 6 June 2002; Interview with South Carolina Governor Jim Hodges on The NewsHour with Jim Lehrer, Public Broadcasting System, 4 June 2002; *Los Angeles Times* [Jeffrey Gettleman], "Plutonium transfer cleared," in *The Honolulu Advertiser*, 14 June 2002, A8.
- 10 Herbert Feis, *From Trust To Terror: The Onset of the Cold War, 1945-1950* (New York: W.W. Norton, 1970), ix, 412; Gavin Cameron, *Nuclear Terrorism: A Threat Assessment for the 21st Century* (London, Macmillan Press Ltd., 1999); The Associated Press [Edith M. Lederer], "Russian aid to 'rogue states' worries U.S.," *The Honolulu Advertiser*, 11 June 2002, A5; A.J.C. Edwards, *Nuclear Weapons, The Balance of Terror, The Quest for Peace* (London: The Macmillan Press Ltd, 1986), 1. Citing others, Richard W. Schaffert indicates that more than "100 definitions of terrorism have been proposed, but none has been universally accepted." See his book, *Media Coverage and Political Terrorists* (New York: Praeger, 1992), 1.
- 11 See, for example, Jim Abrams, Associated Press, "\$400B defense bills pass both houses," *The Honolulu Advertiser*, 23 May 2003, A4; Paul Richter, *Los Angeles Times*, "Battlefield bomb ban weakening," *The Honolulu Advertiser*, 10 May 2003, 1, 7; also nyt.com archives accessed May 25, 2003.
- 12 Peter Eisler, "Study flags radioactive threat;" "Tainted uranium, danger widely distributed" and "Military study finds fouled weapons safe," all by Eisler, *USA Today*, 25 June 2001, 1A, 7A.
- 13 Kenneth Chang, "Navy Confirms Uranium Use," NYT, online edition, 10 January 2003, 20.

- 14 S. L. Simon and W. L. Robison, "A Compilation of Nuclear Weapons Test Detonation Data for U. S. Pacific Ocean Tests," *Health Physics*, 73, no. 1 (July 1997), 258-64.
- 15 Robert A. Conard, "Fallout: The Experiences of a Medical Team in the Care of a Marshallese Population Accidentally Exposed to Fallout Radiation," Upton, N.Y.: Brookhaven National Laboratory, Report 46444; 1992, v.
- 16 Eric Foner, "Introduction," in *The New American History*, ed. for the American Historical Association by Eric Foner (Philadelphia: Temple University Press, 1990), viii.
- 17 See, for example, Eric Schmitt, "Senators Sharply Criticize Iraq Rebuilding Efforts," *NYT*, 23 May 2003, 1, 13.
- 18 Giff Johnson, "US and RMI ignore nuclear victims in Compact II," *The Marshall Islands Journal*, 16 May 2003, 13.
- 19 Laurence M. Carucci and Mary H. Maifeld, *Ien Entaan im Jerata: Times of Suffering and Ill Fortune: An Overview of Daily Life on Ujelang and Enewetak since 1946*, A Report Submitted to the Marshall Islands Nuclear Claims Tribunal in behalf of the People of Enewetak, March 1999, Claimants' Exhibit 147, 14, 19.
- 20 Norman John Powell, *Anatomy of Public Opinion* (New York: Prentice-Hall, 1951), 416-17, 470. *Propaganda* is loosely defined as "communication, verbal or nonverbal, that attempts to influence the motives, beliefs, attitudes, of actions or one or more persons," according to Leonard W. Doob, "Propaganda" in *International Encyclopedia of Communications*, Vol. 3 (New York: Oxford University Press, 1989), 374-78.
- 21 William L. Laurence, "Atomic Bombing of Nagasaki Told By Flight Member," *NYT*, 9 September 1945, 35.
- 22 Joseph T. Klapper, "Mass Media and Persuasion," in *The Process and Effects of Mass Communication*, ed. Wilbur Schramm (Urbana, Ill.: University of Illinois Press, 1965), 299. Italics in the 1965 original but Klapper's research was conducted before 1949.
- 23 Richard L. Miller, *Under the Cloud: The Decades of Nuclear Testing* (New York: The Free Press, 1986), 60; quote is at 61.
- 24 Lansing Lamont, *Day of Trinity* (New York: Atheneum, 1965), 269-70.
- 25 Walter Lippmann, *Public Opinion* (New York: The MacMillan Co., 1922).
- 26 Maxwell E. McCombs, "Agenda-Setting," in *International Encyclopedia of Communications*, vol. 1 (New York: Oxford University Press, 1989), 42.
- 27 Todd Gitlin, *The Whole World is Watching: Mass Media in the Making and Unmaking of the New Left* (Berkeley: University of California Press, 1980), 7.
- 28 See, for example, Dietram A. Scheufele, "Framing as a Theory of Media Effects," *Journal of Communication*, 49, no. 1 (Winter 1999), 103-22.
- 29 William L. Laurence, *The Hell Bomb* (New York: Alfred A. Knopf, 1951), 23. Material in his book was cleared for publication on the grounds of security by the Atomic Energy Commission, vii-viii.
- 30 Shields, "Shattuck Lecture."
- 31 Arjun Makhijani and Stephen I. Schwartz, "Victims of the Bomb," in *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz (Washington, D. C.: Brookings Institution Press, 1998), 395-431, esp. 397.
- 32 Allen P. Stayman [special negotiator of Office of Compact Negotiations, U.S. State Department], oral presentation as one of the Pacific Islands Studies Occasional Seminar Series, 9 May 2000, University of Hawaii, Honolulu; Republic of Marshall Islands Nuclear Claims Tribunal [hereafter NCT], *Annual Report to the Nitijela for the Calendar Year 2000*, 29.
- 33 NCT, *Annual Report to the Nitijela for the Calendar Year 2002*, 3, 6, 24; quote is at 9. On September 11, 2000 Marshallese President Kessai H. Note notified Congress, as well as President Clinton, that the current NCT trust funds are "manifestly inadequate." He petitioned for more funds and a more extensive medical monitoring program because "radiation from the testing program reached every corner of the Marshall Islands," because circumstances

- have changed so radically since the 1986 agreement, and because the U.S. government at the time of the agreement withheld from the Marshallese available information on the magnitude of and expected damages from the nuclear tests.
- 34 Stephen I. Schwartz, "Introduction," in *Atomic Audit*, 1-31.
  - 35 William Burr, Thomas S. Blanton, and Stephen I. Schwartz, "The Costs and Consequences of Nuclear Secrecy," in *Atomic Audit*, quote is at 434; 453, 455.
  - 36 International Court of Justice: Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, *International Legal Materials* 35, no. 4 (July 1996), 17.
  - 37 Mohammed Bedjaoui, "Declaration of President Bedjaoui," in *International Legal Materials* 35, no. 6 (November 1996), 1345.
  - 38 A.O. Sulzberger, Jr., "U.S. Responsible in Atom Testing, House Unit Says," *NYT*, 7 August 1980, A14; U.S. House Committee on Interstate and Foreign Commerce and Its Subcommittee on Oversight and Investigations, *The Forgotten Guinea Pigs: A Report on Health Effects of Low-Level Radiation Sustained as a Result of the Nuclear Testing Program Conducted by the United States Government*, 96th Cong., 2nd sess., 1980, Committee Print 96-IFC 53, 37, 26. The Soviet Union could make the same assessment about its nuclear testing program killing its own citizens.

## Chapter 1

- 1 Ithiel de Sola Pool, *The "Prestige Papers": A Survey of Their Editorials* (Stanford, Calif.: Stanford University Press, 1952), 1.
- 2 Rabbi S. S. Wise, quoted in "Clergy's Admiration Expressed by Many," in *NYT*, 9 April 1935, 4.
- 3 Columbia University President Nicholas Murray Butler cited in "Mr. Ochs's Career Marked By Honors," *NYT*, 9 April 1935, 5; see also former magistrate Charles A. Oberwager in "Others Voice Sorrow," *NYT*, 9 April 1935, 2.
- 4 Meyer Berger, *The Story of The New York Times: 1851-1951* (New York: Simon and Schuster, 1951), 446, 539.
- 5 *NYT*, "Publisher Made Striking Changes," 12 December 1968, 40.
- 6 *NYT*, "Adolph S. Ochs," [obituary], 9 April 1935, 21.
- 7 Berger, *The Story of*, 447.
- 8 *NYT*, "Adolph S. Ochs," 20.
- 9 *NYT*, "Adolph S. Ochs," 20-1; Berger, *The Story of*, 70-135; Harrison Salisbury, *Without Fear or Favor: The New York Times and Its Times* (New York: Times Books, 1980), 14-7, 25-32.
- 10 *NYT*, "Sulzberger Stressed News Coverage, Financial Strength and Technical Progress," 12 December 1968, 40.
- 11 *NYT*, "Adolph S. Ochs," 20.
- 12 *NYT*, "Leaders in Government, Journalism and Other Fields Offer Tributes to Sulzberger's Career," 12 December 1968, 41.
- 13 This "salutatory" was reprinted when Ochs died in *NYT*, 9 April 1935, 4.
- 14 *The Times* embodied the information model of newspapers, which calls for disseminating information as news by incorporating such values as objectivity and factuality, rather than partisanship, opinion, storytelling and entertainment. See Jean Folkerts, Stephen Lacy and Lucinda Davenport, *The Media in Your Life: An Introduction to Mass Communication* (Boston: Allyn and Bacon, 1998), 386-89; Michael Schudson, *Discovering the News: A Social History of American Newspapers* (n.p.: BasicBooks, Inc. [a division of HarperCollins Publishers], 1978), 88-91, 106-120.
- 15 Elmer Davis, *History of The New York Times, 1851-1922* (New York: *The New York Times*, 1921), 233.
- 16 *Ibid.*, 231-32, 238-39.
- 17 *NYT*, "Adolph S. Ochs," 20-21; Berger, *The Story of*, 117.

- 18 Adolph S. Ochs, "Introduction," in Davis, *History of*, xvii.
- 19 NYT, "Adolph S. Ochs," 21.
- 20 Describing *The Times* as "one of the best sources of day-to-day history" and thus blurring the line between journalism and history was Wilbur Schramm, a founder of the discipline of communication and later of the Communication Institute at the East-West Center. Schramm counted *The Times* among the world's "prestige papers." *One Day in the World's Press: Fourteen Great Newspapers on a Day of Crisis*, ed. with introduction and commentary by Wilbur Schramm (Stanford, Calif.: Stanford University Press, 1959), 137.
- 21 See the statement of U.S. Ambassador to Great Britain Robert W. Bingham lauding Ochs' *Times* as "a newspaper that contained all the news from all sides and without color." NYT, "Notables Abroad Mourn Mr. Ochs," 9 April 1935, 5.
- 22 Davis, *History of*, 200, 371.
- 23 Berger, *The Story of*, 109, 328.
- 24 Schramm, *One Day in the World's Press*, 133.
- 25 NYT, "Adolph S. Ochs," 21.
- 26 Davis, *History of*, 300.
- 27 Berger, *The Story of*, 346.
- 28 These included extracts of Nazi Propaganda Minister Goebbels' Diaries and war memoirs of President Harry Truman and British Prime Minister Winston Churchill; Berger, *The Story of*, 536.
- 29 Salisbury, *Without Fear or*, 158.
- 30 NYT, "Adolph S. Ochs," 21; Davis, *History of*, 212-18; Berger, *The Story of*, 558-62.
- 31 NYT, "Sulzberger Stressed News Coverage," 40.
- 32 NYT, "Adolph S. Ochs," 21.
- 33 Berger, *The Story of*, 448-49.
- 34 *Ibid.*, unnumbered page opposite title page.
- 35 Neil MacNeil, *Without Fear or Favor* (New York: Harcourt, Brace, 1940); also Salisbury's cited above.
- 36 NYT, "Adolph S. Ochs," 21.
- 37 Salisbury, *Without Fear or*, 28.
- 38 London journalist Wickham Steed said of Ochs' *Times*: "European observers relied on it not only for American news but also for the most impartial and most reliable world-wide news." NYT, "Notables Abroad Mourn Mr. Ochs," 9 April 1935, 5.
- 39 Richard F. Shepard, *The Paper's Papers: A Reporter's Journey Through the Archives of The New York Times* (New York: Times Books, 1996), 49.
- 40 Berger, *The Story of*, 568.
- 41 Salisbury, *Without Fear or*, 30, 34.
- 42 Arthur Hays Sulzberger, "The Newspaper's Role in the Community," in *The Newspaper: Its Making and Its Meaning*, ed. Members of the staff of *The New York Times* (New York: Charles Scribner's Sons, 1945), 183.
- 43 The histories reveal *Times* editors also rejected some U.S. officials' requests to collaborate with U.S. intelligence agencies or to suppress information; see Salisbury, *Without Fear or*, 454 and Berger, *The Story of*, 497-500.
- 44 Hal Borland, "The Kaiser, Japan and Hitler," *NYT Magazine* 16 July 1939, sec. 7, 1-2, 14-15; quote at 14; see also NYT, "Kaiser Talks of Roosevelt," 21 July 1908, 1; in *New York World* of 22 November 1908, see: "Hale Approved Kaiser Interview Printed in World," 1, 3; "Facsimile of World Kaiser Story as Edited in Proof by Dr. W. B. Hale," 3; "Germans divided as to interview," 3; "Kaiser Says His Lesson as Told," 3; "Kaiser Talked in Same Strain to Six Members of Congress," 3; *New York American*, "The Kaiser's Suppressed Interview Criticized England, Praised America," 20 November 1908, 1.



- 45 Susan E. Tiff and Alex S. Jones, *The Trust: The Private and Powerful Family Behind the New York Times* (Boston: Little, Brown, 1999), 127-28.
- 46 Berger, *The Story of*, 349-50 and Sulzberger, "The Newspaper's Role," 182.
- 47 This passage draws from Salisbury, *Without Fear or*, 121-22, quote at 623.
- 48 Walter Sullivan, "Radiation Spread," *NYT*, 19 March 1959, 1.
- 49 *NYT*, "Space Project's Secrecy Produced Heated Debate," 19 March 1956, 1, 16; Hanson W. Baldwin, "U.S. Atom Blasts 300 Miles Up Mar Radar, Snag Missile Plan; Called 'Greatest Experiment'," *NYT*, 19 March 1959, 1; *NYT*, "The Press: Rights and Duties," [editorial], 21 April 1959, 34.
- 50 Salisbury, *Without Fear or*, 512-13, 550.
- 51 Michael R. Beschloss, *May Day: Eisenhower, Khrushchev and the U-2 Affair* (New York: Harper & Row, 1986), 273-304.
- 52 Salisbury, *Without Fear or*, 550; Beschloss, *May Day*, at 395, notes a deeper price had been paid by the performance of the administration and the press. Eisenhower became the first president to confess his administration had lied to the U.S. people; repeated lies produced the credibility gap from which the government never fully recovered.
- 53 Quoting Kennedy, Michael R. Beschloss, *The Crisis Years: Kennedy and Khrushchev, 1960-1963* (New York: Edward Burlingame Books, 1991), 28.
- 54 Beschloss, *May Day*, 389.
- 55 Beschloss, *The Crisis Years*, 109.
- 56 This section draws from Salisbury, *Without Fear or*, 148-60.
- 57 Beschloss, *May Day*, 391.
- 58 Salisbury, *Without Fear or*, 161; Beschloss, *The Crisis Years*, 469; also see Timesman Clifton Daniels, "The Press and National Security," in William McGaffin and Erwin Knoll, *Anything but the Truth* (New York: G.P. Putnam's, 1968), 208: "Up until the time we are actually at war or on the verge of war, it is not only permissible—it is our duty as journalists and citizens to be constantly questioning our leaders and our policy, and to be constantly informing the people, who are the masters of us all—both the press and the politicians."
- 59 From *The Times* archives, Salisbury, *Without Fear or*, 161.
- 60 E-mail to the author from Catherine Mathis, *Times* vice president, corporate communications, 1 May 2001.
- 61 Pamela J. Shoemaker and Stephen D. Reese, *Mediating the Message: Theories of Influences on Mass Media Content*, 2d. ed. (New York: Longman, 1996), 50.
- 62 Edward S. Herman and Noam Chomsky, *Manufacturing Consent: The Political Economy of the Mass Media* (New York: Pantheon Books, 1988), 2.

## Chapter 2

- 1 <http://www.journalism.org/resources/tools/reporting/watchdog/history.asp>, accessed December 30, 2003; Douglass Cater *The Fourth Branch of Government* (Boston, Houghton Mifflin, 1959), 13.; Emphasis in original.
- 2 William L. Laurence, *Dawn over Zero: The Story of the Atomic Bomb*, 2nd ed., enlarged (Westport, Conn.: Greenwood Press, 1946), xii-xiii, 224; William L. Laurence, *Men and Atoms: The Discovery, the Use and the Future of Atomic Energy* (New York: Simon and Schuster, 1959) [expanded from the first edition in 1946], 111-12; *NYT*, "War Department Called Times Reporter To Explain Bomb's Intricacies to Public," 7 August 1945, 5.
- 3 Laurence, *Dawn Over*, 224; Robert S. Norris, *Racing for the Bomb: General Leslie R. Groves, The Manhattan Project's Indispensable Man* (South Royalton, Vt.: Steerforth Press, 2002), 434. Spencer Weart says Laurence's War Department press releases were "all full of millennial awe" and his language appeared in newspapers around the world. "At first this was almost the only material available," Weart continues. "When other writers began to describe the emergence of nuclear energy, they either followed Laurence's lead or reached into the same stock of familiar

- images that he had used." *Nuclear Fear: A History of Images* (Cambridge, Mass.: Harvard University Press, 1988), 104. Laurence had also drafted a script to be considered for President Truman's half-hour radio address that stunned the world by announcing the A-bombing of Hiroshima on August 6, 1945. Laurence's 17-page draft was rejected, being regarded as too detailed, highly exaggerated and even phony by Harvard University President James B. Conant, a member of the Interim Committee advising the president on atom-related matters; for details see the official historians of the Atomic Energy Commission, Richard G. Hewlett and Oscar E. Anderson Jr., *A History of the Atomic Energy Commission, The New World, 1939-1946*, vol. 1 (University Park, Pa.: The Pennsylvania State University Press, 1962), 353-54.
- 4 Meyer Berger, *The Story of The New York Times, 1851-1951* (New York: Simon and Schuster, 1951), 522. For a detailed investigation of Laurence's propagandistic role at *The Times*, the lingering effect of that role on *Times* coverage as an unquestioning booster of nuclear power, including backing of a failing local nuclear power plant in the New York City suburbs in the late 1980s, and the latter-day interlocking conflicts of interest between members of the board of directors of *the Times* with nuclear-related enterprises, see Karl Grossman, *The Wrong Stuff: The Space Program's Nuclear Threat to Our Planet* (Monroe, Maine: Common Courage Press, 1997), 175-84; EXTRA!, "New York Times' Nuclear Obsession: The Shoreham Debacle," May/June 1989, 10-11
  - 5 Berger, *The Story of*, 512.
  - 6 William L. Laurence letter to A.H. Sulzberger, 15 February 1967, in NYT archives, "AHS folder with heading LAURENCE, WILLIAM L. 1943-1967; see also Berger, *The Story of*, 512.
  - 7 Laurence letter to Sulzberger.
  - 8 In the italicized precede above the 10-article birth-of-the-bomb series that Laurence wrote shortly after World War II and *The Times* distributed to all U.S. newspapers free under its arrangement with General Groves, the newspaper wrote: "Following is the first of a number of articles by a staff member of The New York Times who was detached for service with the War Department at its request to explain the atomic bomb to the lay public. He witnessed the first test of the bomb in New Mexico and on a flight to Nagasaki, its actual use." *The Times* described Laurence differently in the italicized precede above his eyewitness account of the A-bombing of Nagasaki, indicating: "Mr. Laurence, science writer for The New York Times and a Pulitzer Prize winner, is a special consultant to the Manhattan Engineer District, the War Department's special service that developed the atomic bomb."
  - 9 Hanson Baldwin, *Reminiscences*, (Annapolis, Md.: Oral History Program of the U.S. Naval Academy, 1975), 188-93, 311; quote is at 285; oral history with transcript in two volumes; interviewer John T. Mason, Jr.
  - 10 Laurence, *Men and Atoms*, 112-13.
  - 11 *Ibid.*, 223-24.
  - 12 *Ibid.*, 113.
  - 13 For a discussion of the five kinds of power—legitimate power, coercive power, reward power, referent power and expert power—and the uses of power, see David D. Van Fleet, *Behavior in Organizations* (Boston: Houghton Mifflin Co., 1991), 183-91.
  - 14 Joseph T. Klapper, "Mass Media and Persuasion," in *The Process and Effects of Mass Communication*, ed. Wilbur Schramm (Urbana, Ill.: University of Illinois Press, 1965), 299.
  - 15 Berger, *The Story of*, 511.
  - 16 William L. Laurence, *Reminiscences of William L. Laurence*, Part I, transcript of oral history taperecorded March 27, 1956, New York, by Louis M. Starr, director of Oral History Research Office, Columbia University, 1, 3, 4, 8.
  - 17 Laurence, *Reminiscences of*, 1-17, 26, 34. Nazis killed his mother, brother, sister.
  - 18 Weart, *Nuclear Fear*, 58, 73, 78, 98, 158-59, 423.
  - 19 Four pages of this FBI file on Laurence and more extensive description of its contents are available in Beverly Ann Deepe Keever, "Millennia lost, islanders unseen: *The New York Times* fram-

- ing of U.S. nuclear weapons testing in the Pacific, 1946-1962, and the bittersweet legacy," (Ph.D. diss. University of Hawaii, 2000), 29-30, 400-403.
- 20 NYT, "William Laurence, Ex-Science Writer for the Times, Dies," 19 March 1977, 1, 7; NYT, "William L. Laurence," 4 May 1937, 21; NYT, "The Pulitzer Prizes," [editorial], 5 May 1937, 24.
- 21 Laurence letter to Sulzberger.
- 22 Ibid.
- 23 "Punch" Sulzberger letter to Laurence, 21 February 1967, in NYT archives; AHS folder labeled LAURENCE, WILLIAM L.

### Chapter 3

- 1 Claudia Clark, *Radium Girls: Women and Industrial Welfare Reform, 1910-1935*, (Chapel Hill, N.C.: The University of North Carolina Press, 1997), quotes at 2, 14, 35, 86; also 7, 33-39.
- 2 Ibid., 42, 228, fn. 36; John F. Hogerton, *The Atomic Energy Deskbook* (New York: Reinhold Publishing Corp., 1963), 451. For the text of the celebrated letter to Roosevelt dated August 2, 1939, see *The Nuclear Age Reader*, ed. Jeffrey Porro with Paul Doty, Carl Kaysen, and Jack Ruina (New York: Alfred A. Knopf, 1989), 9-10.
- 3 William L. Laurence, *Dawn over Zero: The Story of the Atomic Bomb*, 2nd enlarged ed., (Westport, Conn.: Greenwood Press, 1946), 160.
- 4 Debbie Galant, "Living With A Radium Nightmare," NYT, 29 September 1996, Sec.13NJ, I.
- 5 For examples of front-page stories, see NYT, "Radium Killed Woman, Relatives Declare; She Is Seventh Watch Dial Painter to Die," 19 June 1925, 1; NYT, "Begin Wide Inquiry Into Radium Deaths," 20 June 1925, 1, 6; NYT, "Women Ask \$1,250,000 in Radium Poisoning; Hear in Court Their Chance to Live Is Slender," 27 April 1928, 1; NYT, "Radium Victims Win \$50,000 and Pensions in Suit Settlement," 5 June 1928, 1, 8; for "slow burning" quote see NYT, "First of 5 Victims of Radium is Dying," 27 October 1929, 24.
- 6 Drawing is reproduced in Clark, *Radium Girls*, page opposite page 1; term of *radium girls* is from the title of her book; see her Chapter 5 for details of press coverage.
- 7 According to Gofman's differentiation, radiation refers to the instant in which a radioactive substance is converting matter to energy by undergoing spontaneous decay but radioactivity refers to the potential of a substance to undergo spontaneous decay at a future time and rate that can occur over centuries or even millennia; see John W. Gofman, *Radiation and Human Health* (San Francisco: Sierra Club Books, 1981), 35-36.
- 8 Clark, *Radium Girls*, 2.
- 9 Merrill Eisenbud, *Environmental Radioactivity* (New York: McGraw-Hill Book Co., 1963), 12.
- 10 Ibid., 13. Ionizing radiation refers to the release of energy that results when molecules or atoms are split into particles called ions.
- 11 Richard L. Miller, *Under the Cloud: The Decades of Nuclear Testing* (New York: The Free Press, 1986), 66-69; Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), 138-39.
- 12 The Associated Press, "Atomic Bomb Worker Died 'From Burns,'" NYT, 21 September 1945, 10.
- 13 Quoting a Congressional hearing, Weisgall, *Operation Crossroads*, 140.
- 14 Anthony Leviero, "Groves See Perils in Atom Inspection," NYT, 29 November 1945, 4.
- 15 George E. Jones, "Survey Rules Out Nagasaki Dangers," NYT, 7 October 1945, 28.
- 16 W.H. Lawrence, "2d Big Aerial Blow," [under banner headline], NYT, 9 August, 1945, 1.
- 17 Ronald Takaki, *Hiroshima: Why America Dropped the Atomic Bomb* (Boston: Little, Brown and Co., 1995), 47. The Nagasaki Atomic Bomb Museum reports that about 240,000 people lived in Nagasaki on the day of the A-bombing, of which an estimated 73,884 had died and 74,909 were injured as of December 31, 1945; see <http://www1.city.nagasaki.nagasaki.ip.na-bomb/museum/m2-2e.html>, accessed January 5, 2004.

- 18 Quoting Laurence, Meyer Berger, *The Story of The New York Times* (New York: Simon and Schuster, 1951), 512.
- 19 William L. Laurence, "Drama of the Atomic Bomb Found Climax in New Mexico Test," *NYT*, 26 September 1945, 16.
- 20 Leslie R. Groves, "Some Recollections of July 16, 1945," in *Alamogordo Plus Twenty-Five Years: An Inside Look at the Impact of Atomic Energy on Science, Technology, and World Politics*, eds. Richard S. Lewis, Jane Wilson with Eugene Rabinowitch (New York: The Viking Press, 1971), 54.
- 21 Lansing Lamont, *Day of Trinity* (New York: Atheneum, 1965), 98.
- 22 *Ibid.*, 107.
- 23 Barton C. Hacker, *The Dragon's Tail: Radiation Safety in the Manhattan Project, 1942-1946* (Berkeley: University of California Press, 1987), 6, 90.
- 24 Lamont, *Day of Trinity*, 128.
- 25 Groves, "Some Recollections," 54-55.
- 26 Lamont, *Day of Trinity*, 250-51; Hacker, *The Dragon's Tail*, 84-108.
- 27 Lamont, *Day of Trinity*, 127-28; Hacker, *The Dragon's Tail*, 84-108.
- 28 Hacker, *The Dragon's Tail*, 92.
- 29 Groves, "Some Recollections," 57.
- 30 Laurence, *Dawn Over Zero*, 194.
- 31 Lamont, *Day of Trinity*, 241.
- 32 Groves, "Some Recollections," 61.
- 33 Lamont, *Day of Trinity*, 252.
- 34 Groves, "Some Recollections," 60.
- 35 *Ibid.*, 53.
- 36 Groves, "Some Recollections," 60.
- 37 *Ibid.*, 60-61; Lamont, *Day of Trinity*, 249-51.
- 38 Groves, "Some Recollections," 60-61.
- 39 Laurence, *Dawn Over Zero*, 195; Hacker, *The Dragon's Tail*, 100-102.
- 40 William L. Laurence, "Lightning Blew Up Dummy Atom Bomb," *NYT*, 27 September 1945, 7.
- 41 Laurence, "Drama of the Atomic Bomb," 1, 16.
- 42 Laurence, "Lightning Blew Up," 7.
- 43 *Ibid.*
- 44 Citing an official memorandum, Hacker, *The Dragon's Tail*, 106.
- 45 U.S. Department of Defense and U.S. Atomic Energy Commission, *The Effects of Atomic Weapons*, rev. September 1950, ed. Samuel Glasstone (Washington, D.C.: U.S. Government Printing Office, 1950), 267, 271, 273.
- 46 Hacker, *The Dragon's Tail*, 104-105.
- 47 Lamont, *Day of Trinity*, 270.
- 48 *NYT*, "Atomic Bombs Made Cows Pre-Cancerous," 9 August 1950, 11.
- 49 R. Jeffrey Smith, "Scientists Implicated in Atomic Test Deception," *Science* 218 (5 November 1982), 545.
- 50 The news items included a variety of formats: news articles, columns, editorials and verbatim texts of statements issued by President Truman, Secretary of War Henry L. Stimson, Secretary of State James F. Brynes and former British Prime Minister Winston Churchill as well as the Soviet Declaration of War against Japan and the Japanese offer to surrender.
- 51 Stuart Hall, *Representation and Media*, 55 min., Media Education Foundation, n.d. videocassette (VHS). See also Maxwell E. McCombs, "Agenda-Setting," in *International Encyclopedia of Communications*, vol. 1 (New York, Oxford University Press, 1989), 42-43.
- 52 Michael Parenti, *Inventing Reality: The Politics of News Media*, 2d ed. (New York: St. Martin's Press, 1993), 192. Emphasis in the original.

- 53 U.S. Department of Defense and U.S. Atomic Energy Commission, *The Effects of Nuclear Weapons*, ed. Samuel Glasstone (Washington, D.C.: Government Printing Office, June 1957). This section of this book is drawn from this document, esp. 6-7.
- 54 See the “radium-like elements” referred to in the previously noted Einstein letter dated Aug. 2, 1939, to President Roosevelt. In addition, in early 1944 in his laboratory at the University of Chicago, scientist Glenn T. Seaborg writes, he recognized the dangers of radiation to him and his colleagues and increased safety precautions to guard against any deadly effects from their handling of plutonium; see Seaborg, “Foreword,” Weisgall, *Operation Crossroads*, x.
- 55 U.S. Department of Defense, *The Effects of (1957)*, 6.
- 56 Thermal radiation is the heat and light rays resulting from an A-bomb explosion. Initial radiation consists of X-ray-like gamma rays and neutrons that travel far through the air and penetrate thick materials; because they could be neither seen nor felt, they could wound unsuspecting persons far from Ground Zero. Initial nuclear radiations occur within a minute of the explosion, but residual radiation is emitted for as long as the elements within the nucleus are decaying; for example, plutonium emits radiation for 500,000 years; see U.S. Department of Defense, *The Effects of (1957)*.
- 57 NYT [editorial], “After-Effects of the Bomb,” 13 September 1945, 22.
- 58 NYT, “70-Year Effect of Bombs Denied,” 9 August 1945, 9.
- 59 Ibid. Historian Paul Boyer discusses what he calls the belittlement and intimidation of Jacobson, a Columbia University scientist who worked on the Manhattan Project and who described the century-long horrors A-bombed cities could expect; see Boyer, *By the Bomb’s Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York: Pantheon, 1985), 188.
- 60 NYT, “Text of Statements by Truman, Stimson on Development of Atomic Bomb,” 7 August 1945, 4. Just two days later the Director of Censorship Byron Price praised the press for keeping work on developing atomic weapons as the best-kept secret of the war. In June 1943, Price had sent a confidential memorandum to 20,000 news outlets asking them voluntarily to avoid disseminating information regarding war experiments that involved uranium and a number of other elements; see The Associated Press, “Atomic Bomb Held ‘Best-Kept’ Secret,” NYT, 9 August 1945, 8.
- 61 NYT, “70-Year.”
- 62 *The Times* carried several Associated Press articles in the aftermath of the Hiroshima bomb disclosing information that had been withheld from dissemination because of the official censorship under which the U.S. press voluntarily operated. See The Associated Press [Howard W. Blakeslee], “Neutron Ray Used in Trigger Device,” NYT, 8 August 1945, 2.
- 63 NYT [editorial], “Heard Round the World,” 7 August 1945, 22; Hanson W. Baldwin, “The Atomic Weapon,” NYT, 7 August 1945, 10.
- 64 NYT, “Text of Statements by Truman, Stimson on Development of Atomic Bomb,” 7 August 1945, 4.
- 65 Sidney Shalett, “First Atomic Bomb Dropped on Japan,” NYT, 7 August 1945, 1, 2. Nor was attribution included in a continuation of that article onto page 2, where Hiroshima was described as “a city of 318,000, which is—or was—a major quartermaster depot and port of embarkation for the Japanese” as well as a site for manufacture of tanks, large-guns and aviation ordnance. Also ignoring civilian casualties, a *Times* editorial emphasized only the military use of the target city, by referring to “the Japanese quartermaster depot town of Hiroshima” and “the Japanese Army base of Hiroshima.” See NYT [editorial], “Primitive vs. Modern War,” 8 August 1945, 22; see also NYT, “Science and the Bomb,” 7 August 1945, 22.
- 66 Takaki, *Hiroshima*, 46-47.
- 67 Lewis Wood, “Steel Tower ‘Vaporized’ In Trial of Mighty Bomb,” NYT, 7 August 1945, 16. Farrell was also described as talking of the feelings of those concerned with “the nativity” of the

- atomic bomb and of “the tremendous forces which had been unlocked for the first time in history.”
- 68 NYT, “President Truman’s Report to the People on War Developments, Past and Future,” 10 August 1945, 12.
- 69 Clifton Daniel, “Report By Britain,” NYT, 7 August 1945, 1; The Associated Press, “All Foreign Sabotage Of Atomic Bomb Failed,” NYT, 9 August 1945, 6; The Associated Press, “FBI Used Nazi Spies to Save Atom Data,” NYT, 10 August 1945, 5; NYT, “Secret War Nipped Reich Cosmic Bomb,” 10 August 1945, 5; Drew Middleton, “German Chiefs See Japan’s Extinction,” NYT, 9 August 1945, 7; United Press, “German General Held,” NYT, 9 August 1945, 14.
- 70 NYT [editorial], “Primitive vs. Modern War,” 8 August 1945, 22.
- 71 Brooks Atkinson, “Soviet Declares War on Japan,” NYT, 9 August 1945, 1.
- 72 The prominence of the text about the Soviets was further magnified by a dominant Page 1 map centered on Japan engulfed by two Soviet spearheads swooping across from the Asian continent and three U.S. spearheads from the South Pacific and Alaska; see NYT, “Circle of Spearheads Around Japan is Completed,” [overline above three-column map], 9 August 1945, 1.
- 73 Lawrence, “2d Big Aerial.”
- 74 See, for example, NYT, “Nimitz Welcomes Russia As Partner,” United Press, “Weak Spot of Allies in Far East Plugged By Russian Entry, Admiral Cassady Says,” and C.P. Trussell, “Congress Expects An Earlier Recall,” all in NYT, 9 August 1945, 4.
- 75 Reston gave no source for that information. See James Reston, “Washington Looks For Early Peace,” NYT, 9 August 1945, 5.
- 76 Hanson W. Baldwin, “Entry of Russians Into War,” NYT, 9 August 1945, 2.
- 77 Felix Belair Jr., “Bomb Use to Go On,” NYT, 10 August 1945, 1.
- 78 James Reston, “U.S. Has List of Foe’s Isles For Our Occupation At Once,” NYT, 11 August 1945, 1.
- 79 Lawrence, “2nd Big Aerial,” and boldface subhead “Hiroshima a ‘City of Dead.’”
- 80 NYT, “Atom Bomb Razed 1/3 of Nagasaki,” 1, 5.
- 81 NYT, “President Truman’s Report,” 12.
- 82 The article described American delegate Charles Fenwick’s address as persuading the Inter-American Juridical Commission that the atomic bomb is lawful because it could be guided so as not to hit undefended areas; see NYT, “Atom Bomb Is Lawful, Jurists Decide at Rio,” 11 August 1945, 5.
- 83 Charles E. Egan, “4 Powers Call Aggression Crime in Accord Covering War Trials,” NYT, 9 August 1945, 1, 11; The Associated Press, “The Texts of the War Crimes Committee Report and the Jackson Statement,” NYT, 9 August 1945, 10; NYT [editorial], “The War Criminal Trials,” 9 August 1945, 20. In its editorial, *The Times* noted that the vanquished leaders of Europe would be tried under a law that was not in existence when they began World War II.
- 84 NYT, “Hiroshima a ‘City of Dead,’” 9 August 1945, 1, 6. The reference citation should have been to Article 22 of the Regulations Respecting the Laws and Customs of War Appended to the Hague Convention on Land Warfare of 1907.
- 85 Telford Taylor, *The Anatomy of the Nuremberg Trials* (New York: Alfred A. Knopf, 1992).
- 86 *Ibid.*, 325-26.
- 87 *Ibid.*, 325.
- 88 Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, <http://www.icj-cij.org/icjwww/icasess/iunan/iuananframe.htm>, accessed Jan. 3, 2005, paragraph 150(2)(B) and paragraph 77 respectively.
- 89 *Ibid.*, paragraph 105(2)(E).
- 90 *Ibid.*, paragraph 150(2)(B).
- 91 Laurence, “Drama of the Atomic Bomb,” and “Lightening Blew Up.”

- 
- 92 Hanson W. Baldwin, "Japan's Plight Grave," *NYT*, 20 June 1945, 10 and "Air Lessons of Europe Used in Bombing Japan," 15 July 1945, 40.
- 93 Monica Braw, *The Atomic Bomb Suppressed: American Censorship in Occupied Japan* (Armonk, N.Y.: M.E. Sharpe, Inc., 1991), 89-138; quote is at 137-38.
- 94 Takaki, *Hiroshima*, 8; quote is at 111-12; see also Howard Zinn, *A People's History of the United States* (New York: HarperPerennial, 1990), 413-15 and Noam Chomsky, *Class Warfare: Interviews with David Barsamian* (Monroe, Maine: Common Courage Press, 1996), 59-78.
- 95 Takaki, *Hiroshima*, 68.
- 96 Ronald W. Clark, *Einstein: The Life and Times* (New York: The World Publishing Co., 1971), 554.
- 97 William L. Laurence, "Atomic Bombing of Nagasaki Told By Flight Member," *NYT*, 9 September 1945, 1, 35. Quote is at 1.
- 98 Raymond A. Schroth, "Following the Boys," *Columbia Journalism Review* 33, no. 3, September-October, 1994, 51.
- 99 Tatsuichiro Akizuki, *Nagasaki 1945*, trans. Keiichi Nagata, ed. and intro by Gordon Honeycombe (London: Quartet Books, 1981), 30-31.
- 100 Berger, *The Story of*, 540.
- 101 Laurence, "Lightening Blew Up."
- 102 William L. Laurence, "Element 94 Key To Atomic Puzzle," *NYT*, 5 October 1945, 4.
- 103 William L. Laurence, "Plutonium Lifted By New Chemistry," *NYT*, 8 October 1945, 6.
- 104 Laurence, "Drama of the Atomic Bomb."
- 105 Scholars George Lakoff and Mark Johnson argue that metaphors are significant because they define reality and they do so in part because they are instruments for highlighting and hiding. Metaphors provide little cognitive gain for the reader; instead they give emotive meaning to the descriptors used; see *Metaphors We Live By* (Chicago: The University of Chicago Press, 1980), 10-13.
- 106 William L. Laurence, "Gases Explain Size of Atomic Plants," *NYT*, 3 October 1945, 10.
- 107 Laurence, "Drama of the Atomic Bomb," 16.
- 108 Laurence, "Lightening Blew Up," 7.
- 109 Laurence, "Drama of the Atomic Bomb" and "First Explosion."
- 110 Laurence, "Drama of the Atomic Bomb," 1, 16.
- 111 *Ibid.*
- 112 *Ibid.*
- 113 *Ibid.*
- 114 William L. Laurence, "Atomic Factories Incredible Sight," *NYT*, 29 September 1945, 6.
- 115 U.S. Department of Defense, *The Effects of* (1950), 340, 343.
- 116 U.S. Department of Defense and U.S. Atomic Energy Commission, *The Effects of Nuclear Weapons*, ed. Samuel Glasstone (Washington, D.C.: Atomic Energy Commission, 1957), 456-57, 466.
- 117 U.S. Department of Defense, *The Effects of* (1950), 340, 343.
- 118 Wilfred Burchett, *Shadows of Hiroshima* (London: Verso, 1983), 9, 13-16, 24, 41, 46 and at 122, citing a Japanese-language publication.
- 119 *Ibid.*, 35.
- 120 *Ibid.*
- 121 *Ibid.*, 21-22.
- 122 W. H. Lawrence, "No Radioactivity in Hiroshima Ruin," *NYT*, 13 September 1945, 4. Burchett identifies William L. Laurence as being the journalist who wrote this story for *The Times* but he confused Laurence with Lawrence. See Burchett, *Shadows of Hiroshima*, 18-20. No matter which *Timesman* covered this phase of the Hiroshima story, the thrust of Burchett's arguments about *The Times* coverage is relied upon by Boyer.
- 123 William L. Laurence, "U.S. Atom Bomb Site Belies Tokyo Tales," *NYT*, 12 September 1945, 1, 4.

- 124 Ibid., 4.
- 125 *Life*, "New Mexico's Atomic Bomb Crater," 24 September 1945, 27-31; quotes are at 27, 30.
- 126 Laurence, "U.S. Atom Bomb Site."
- 127 This section draws from Miller, *Under the Cloud*, 387.
- 128 Lamont, *Day of Trinity*, 293-94; Peter Goin, *Nuclear Landscapes* (Baltimore: John Hopkins University Press, 1991), 28-29.
- 129 NYT [editorial], "After-Effects of the Bomb," 13 September 1945, 22; also Waldemar Kaempffert, "Science in Review: Radiologists Determine the After-Effects of Explosions of Atomic Bombs," NYT, 16 September 1945, sec. IV, E4.
- 130 See, for example, The Associated Press, "Japan Still Censors Bomb News," NYT, 4 September 1945, 7, about Japanese newspapermen discussing the seriousness of burns for survivors of the Hiroshima bomb; United Press, "Sickness After Visit to Hiroshima Denied," NYT, 9 September 1945, 34; NYT, "Tokyo 'Reconsiders' Atomic Bomb Effect," 16 September 1945, 27, which said the Domei radio broadcast giving rise to *The Times* story possibly indicated pressure by Allied commanders to correct previous Japanese propaganda reports.
- 131 Boyer, *By the Bomb's Early Light*, 187.
- 132 James N. Yamazaki with Louis B. Fleming, *Children of the Atomic Bomb: An American Physician's Memoir of Nagasaki, Hiroshima, and the Marshall Islands* (Durham, N.C.: Duke University Press, 1995), esp. 51-58.
- 133 Quote from Meiling memorandum is reprinted in Advisory Committee on Human Radiation Experiments, *Final Report* (Washington, D.C.: U.S. Government Printing Office, October 1995), 457.
- 134 Telephone interview with Charlie Clark by the author in Honolulu, 5 and 6 January 2004.
- 135 Medical Follow-up Agency of the Institute of Medicine, *Adverse Reproductive Outcomes in Families of Atomic Veterans: The Feasibility of Epidemiological Studies* (Washington, D.C.: National Academy Press, 1995).
- 136 John Hersey, "Hiroshima," *The New Yorker*, 31 August 1946, 62. His percentages total 95 percent.
- 137 Ibid.
- 138 Frederick S. Voss, *Reporting the War: The Journalistic Coverage of World War II* (Washington, D.C.: Smithsonian Institution for the National Portrait Gallery, 1994), 210.

## Chapter 4

- 1 Patricia J. Lindop and J. Rotblat, "Consequences of Radioactive Fallout," in *The Final Epidemic: Physicians and Scientists on Nuclear War* (Chicago: Educational Foundation for Nuclear Science, 1981), 117.
- 2 Stewart Firth, *Nuclear Playground* (Honolulu: University of Hawaii Press and Pacific Islands Studies Program, 1987), xi.
- 3 E.P. Cronkite, R.A. Conard and V.P. Bond, "Historical Events Associated with Fallout from Bravo Shot—Operation Castle and 25 Y of Medical Findings," *Health Physics* 73, no. 1, 176, 178; The Associated Press, "More Islanders Moved," NYT, 4 June 1946, 17.
- 4 Numbers of islanders and time of evacuation vary in the literature; this statistic is in personal communication to author from Nuclear Claims Tribunal Public Advocate Bill Graham, post-marked 25 November 2002.
- 5 Almira Ainri Matayoshi, interview with author in Marshallese, Honolulu, 17 July 2001, translator was Carmina Alik.
- 6 Barbara Rose Johnston and Holly M. Barker, "Hardships and Consequential Damages from Radioactive Contamination, Denied Use, Exile and Human Subject Experimentation Experienced by the People of Rongelap, Rongerik, and Ailinginae Atolls," 17 September, 2001, 55. [Prepared for the Public Advocate, Nuclear Claims Tribunal, P.O. Box 702, Majuro, RMI 96960.]



- 7 Matayoshi interview.
- 8 Johnston and Barker, "Hardships and Consequential," 69.
- 9 Ibid., 89; citing Jamore Aitap and Kilon Bauno, Jack Niedenthal, *For the Good of Mankind: A History of the People of Bikini and Their Islands* (Majuro, Marshall Islands: Micronitor Publishing, 2001), 20-28.
- 10 Leonard F. Mason, interview by author, 26 March 2002, Honolulu; Walter J. Ong, *Orality and Literacy: The Technologizing of the Word* (London: Methuen, 1982), 42, 74, 82.
- 11 Matayoshi interview.
- 12 Robert C. Kiste, "Pre-colonial times," in *Tides of History: The Pacific Islands in the Twentieth Century*, ed. K.R. Howe, Robert C. Kiste, and Brij V. Lal (Honolulu: University of Hawaii Press, 1994), 8, quote is at 7; <http://www.rmiembassyus.org/about/atolls.html>. The people of Rongelap Atoll are also considered to include people on Rongerik and Ailinginae Atolls as a single sociopolitical unit; land rights are held by Rongelap residents.
- 13 <http://www.geocities.com/SiliconValley/Horizon/5768/walap.html>, accessed July 2, 2002; <http://rmiembassyus.org/about/traditional.html>.
- 14 Quoting Kendall at 82, Riklon at 95 and Kedi at 115, Matayoshi at 32, Johnston and Barker, "Hardships and Consequential," 32, 80, 82, 86, 87-115.
- 15 Matayoshi interview.
- 16 Kiste, "Pre-colonial times," 23.
- 17 Arjun Makhijani, "A Readiness to Harm," in *Nuclear Wastelands: A Global Guide to Nuclear Weapons Production and Its Health and Environmental Effects*, ed. Arjun Makhijani, Howard Hu, Katherine Yih (Cambridge, Mass.: The MIT Press, 1995), 7, 8.
- 18 Quoting Teller, Adam Schulman, "Bacon's Proof: The Career and Controversies of Edward Teller," *The National Interest* 67 (spring 2002), 133.
- 19 Samuel Glasstone, *Sourcebook on Atomic Energy*, 2d. ed., (Princeton, N.J.: D. Van Nostrand Co, 1958), 439; see also Beverly Ann Deepe Keever, "The Racial Dimensions of the Nuclear Age: Insights Gleaned from Interdisciplinary Literature," presentation at the national conference of the National Association of African American Studies and Affiliates, Houston, February 21, 2003.
- 20 Cronkite, Conard and Bond, "Historical Events," 180, 183; Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: The Dial Press, 1999), 297, 300-301.
- 21 Beverly Ann Deepe Keever, "The Origins and Colors of a News Gap" plus "The Pacific Islanders" and Virginia Mansfield-Richardson, "The Other Asian Americans," in *U.S. News Coverage of Racial Minorities: A Sourcebook, 1934-1996*, ed. Beverly Ann Deepe Keever, Carolyn Martindale, and Mary Ann Weston (Westport, Conn.: Greenwood Press, 1997), 1-21, 256, 292.
- 22 Matayoshi interview.
- 23 Robert C. Kiste, Pacific Islands Studies director, interview with author, Honolulu, 15 May 1996; Keever, "The Pacific Islanders," 269; Geoffrey M. White, "Preface," in *Remembering the Pacific War*, ed. Geoffrey M. White (Honolulu: Center for Pacific Islands Studies), vii, viii.
- 24 Samuel Eliot Morison, *History of United States Operations in World War II, Volume VII: Aleutians, Gilberts and Marshalls June 1942-April 1944* (Boston: Little, Brown and Co., 1975), 221, 293-94.
- 25 Matayoshi interview.
- 26 John Heine, "Marshall Islanders' Experiences in World War II," in *Remembering the Pacific War*, 118.
- 27 Bertram D. Hulén, "U.S. Proposes That It Rule Pacific Isles," *NYT*, 7 November 1946, 24; population figures are from this article; *NYT*, "U.S. Assumes Rule of Isles in Pacific," 20 July 1947, 35.

- 28 John McNeill, "The Strategic Trust Territory in International Law" (Ph.D. diss., University of London, 1976), 14-15.
- 29 U.S. Atomic Energy Commission, *Seventh Semi-Annual Report to Congress* (Washington, D. C.: U.S. Government Printing Office, 1950), 10.
- 30 Niedenthal, *For the Good*, 4.
- 31 Hulén, "U.S. Proposes."
- 32 NYT, "Text of United States Proposal on Trusteeship in the Pacific," 7 November 1946, 24.
- 33 NYT [editorial], "The Pacific Islands," 18 February 1947, 24.
- 34 These 17 news articles or analyses were: Hulén, "U.S. Proposes;" Thomas J. Hamilton, "U.S. to Retain Pacific Isles if U.N. Bars Trustee Draft," NYT, 8 November 1946, 1, 4; quote is at 1; Thomas J. Hamilton, "Soviet would bar Africa annex plan," NYT, 12 November 1946, 1, 5; NYT, "U.S. Bars U.N. Rule in Colonial Areas," 24 November 1946, 1, 5; Thomas J. Hamilton, "Hitch in Trustee Machinery Laid in Part to U.S. Mix-Up," NYT, 25 November 1946, 45; William S. White, "U.S. Urged to Keep Pacific Islands; House Report Asks Strong Bases," NYT, 11 January 1947, 1, 2; The Associated Press, "Silent on U.N. Trusteeship Policy," NYT, 11 January 1947, 2; Bertram D. Hulén, "Soviet Accepts U.S. Pacific Isles Plan," NYT, 26 February 1947, 1, 3; The Associated Press [from Tokyo], "Tokyo Sees Manchurian Aim," NYT, 26 February 1947, 3; James Reston [from Lake Success, N.Y.], "Soviet Switch on Islands Hints at Claims in Europe," NYT, 26 February 1947, 3; Thomas J. Hamilton, "Russians Support U.S. Trustee Plan Before Peace Pact," NYT, 27 February 1947, 1; Thomas J. Hamilton, "U.S. Stand on Atom in U.N. Unchanged," NYT, 7 March 1947, 10; NYT, "U.N. Proceedings," 7 March 1947, 12; A.M. Rosenthal, "U.S. Pacific Trust Put Off By Council," NYT, 8 March 1947, 1, 4; NYT, "Trustee Body Adopts Plan on Native Pleas," 2 April 1947, 8; George Barrett, "U.N. Council Votes Our Trusteeship of Pacific Isles," NYT, 3 April 1947, 1, 4; 17; NYT, "U.S. Assumes Rule of Isles in Pacific," 20 July 1947, 35.
- 35 Four were U.S. texts: NYT, "Text of United States Proposal"; NYT, "Statement by Dulles," 12 November 1946, 4; NYT, "Dulles' Statement on Trusteeship," 24 November 1946, 3; NYT, "Excerpts from Austin Trusteeship Statement," 27 February 1947, 3. Three were non-U.S. texts; two of these along with a Dulles statement were published on the same day, on the same page and in reaction to the Soviet statement on trusteeships made by Nikolai V. Novikov: NYT, "Excerpts From Text of Novikov's Statement on Trusteeships, and Three Replies," 12 November 1946, 4; NYT, "Statement by Thomas" [Ivor Thomas of the United Kingdom] and NYT, "Statement by South Africa," made by that nation's delegation.
- 36 NYT [photograph of Soviet delegate A. Gromyko] under the overline "Mr. Gromyko Has A Breathing Spell," 27 February 1947, 3; NYT, "To Oversee Islands" [overline above photograph of Admiral Louis Denfel] 20 July 1947, 35.
- 37 NYT [map], "United States Makes Proposal on Islands of Pacific," 7 November 1946, 24.
- 38 NYT [editorials], "The Pacific Islands" and "Russia and the Islands," 27 February 1947, 20; NYT, "An American Trusteeship," 5 April 1947, 18.
- 39 Hamilton, "Hitch in Trustee Machinery."
- 40 NYT, "Russia and the Islands."
- 41 NYT, "An American Trusteeship."
- 42 NYT, "Text of United States Proposal."
- 43 NYT, "Excerpts from Austin Trusteeship Statement."
- 44 See McNeill, "The Strategic Trust," 198-203.
- 45 Hulén, "U.S. Proposes;" Hamilton, "Russians Support."
- 46 Hulén, "U.S. Proposes;" Lawrence K. Davies, "Trust Isles Grow as Security Chain," NYT, 17 August 1952, 59.
- 47 Davies, "Trust Isles Grow;" Lawrence K. Davies, "Trust Isles Beset by Trade Problem," NYT, 18 August 1952, 3; Lawrence K. Davies, "Trust Isles Aided by U.S. Monopoly," NYT, 19 August 1952, 4.

- 48 The 1986 Compact document could be viewed in June 2002 at [http://www.rmiembassyus.org/government/compact\\_body.html](http://www.rmiembassyus.org/government/compact_body.html); see also U.S. General Accounting Office, "Kwajalein Atoll Is the Key U.S. Defense Interest in Two Micronesian Nations," January 2002, GAO-02-119, 41.
- 49 *Marshall Islands Journal*, "Compact Delay March," "Protestors March on U.S. Embassy," and "Anger over end to 177 Program," 2 January 2004, 16, 18, 22 respectively.
- 50 Letter with enclosure from Tara O'Toole [assistant secretary for environment, safety and health, U.S. Department of Energy] to Senator Ted Stevens, March 26, 1996, printed in U.S. Senate Committee on Governmental Affairs, *Human Radiation Experiments: Hearing Before the Committee on Governmental Affairs, United States Senate*, 104 Cong., 2d. sess., [S. Hrg. 104-588], 347-49. See also portions of her prepared statement about the DOE's Marshall Islands Medical Program, 312-15.
- 51 Institute of Medicine, *Pacific Partnerships for Health: Charting a Course for the 21st Century*, ed. Jill C. Feasley and Robert S. Lawrence (Washington, D. C.: National Academic Press, 1998), 4, 30-33, 42-46, 145-46; quote is at 62.
- 52 *Ibid.*, 142.
- 53 Statement of Susan B. Westin, [managing director of international affairs and trade of the General Accounting Office, which conducts Congressional investigations] before the Subcommittee on Asia and the Pacific, House Committee on International Relations, June 18, 2003 [GAO-03-89OT] accessed November 11, 2003 at [www.house.gov/international\\_relations/108/COH0618.htm](http://www.house.gov/international_relations/108/COH0618.htm). Excluded from her statistics are federal funds for U.S. weather, aviation, postal services and disaster assistance and for trust fund earnings.
- 54 The "Changed Circumstances" petition could be accessed on January 9, 2004 at <http://www.rmiembassyus.org/nuclear/petition.html>.
- 55 Search of electronic archives at [www.newyorktimes.com](http://www.newyorktimes.com) on January 9, 2004 using keywords of "changed circumstances" AND Marshall Islands. A similar search for Compact of Free Association.

## Chapter 5

- 1 Anne O'Hare McCormick, "Abroad: The Human Atom at Operation Crossroads," *NYT*, 1 July 1946, 30; Stewart Firth, *Nuclear Playground* (Honolulu: University of Hawaii Press and Pacific Islands Study Program, 1987), quote from book title.
- 2 William L. Laurence, *The Hell Bomb* (New York: Alfred A. Knopf, 1951), 23.
- 3 United States Department of Defense and United States Atomic Energy Commission, *The Effects of Nuclear Weapons* (Washington, D. C.: Government Printing Office, 1957), 447-49.
- 4 Warren Shields, "Shattuck Lecture: You, Your Patients and Radioactive Fallout," *The New England Journal of Medicine*, 226, no. 22 (May 31, 1962), 1123-1125, esp. 1124. Officials indicated at the time this radiation posed no health risks.
- 5 Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: The Dial Press, 1999), 299.
- 6 Richard L. Miller, *Under the Cloud: The Decades of Nuclear Testing* (New York: The Free Press, 1986), 60-61.
- 7 Arjun Makhijani and Stephen I. Schwartz, "Victims of the Bomb," in *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons since 1940*, ed. Stephen I. Schwartz (Washington, D. C.: Brookings Institution Press, 1998), 428.
- 8 The source for these failed tests is: editors Thomas B. Cochran, William K. Arkin, Robert S. Norris, and Milton B. Hoenig, *Nuclear Weapons Databook, Volume 2, U.S. Nuclear Warhead Production* (Cambridge, Mass.: Ballinger Publishing, 1987), 160. This *Databook* based its description on official lists and on tests not announced by the U.S. government but detected by seismic means and made public by scientific institutions, 151. Its listing covers July 1945

- through December 31, 1985, 151-157. The 86 tests studied here exclude 24 U.S. tests near British-controlled Christmas Island.
- 9 Republic of the Marshall Islands Nuclear Claims Tribunal, *Annual Report to the Nitijela for the Calendar Year 1997* (no place, no date), 2-3. This calculation by the Nuclear Claims Tribunal is based on 67 atmospheric tests at Bikini and Enewetak and includes the one "Pacific" shot in Operation Newsreel that occurred close to Enewetak.
  - 10 See the 1994 DOE list in Appendix Table 1.
  - 11 Spark M. Matsunaga Institute for Peace, "50 Years with the Bomb" (Honolulu: 1995), 13.
  - 12 Helen Caldicott, "Nuclear Shadow: The Weapons, The Power, The Waste," *Nation*, 262, no. 17 (29 April 1996), 14.
  - 13 In addition, "Uranium mining has also largely taken place on—and defaced—tribal lands or colonial countries." See Arjun Makhijani, "A Readiness to Harm," in *Nuclear Wastelands: A Global Guide to Nuclear Weapons Production and Its Health and Environmental Effects*, ed. Arjun Makhijani, Howard Hu and Katherine Yih (Cambridge, Mass.: The MIT Press, 1995), 1-9.
  - 14 Citing the U.S. Atomic Energy Commission's Thirteenth Semi-annual Report to Congress, (1951), 80-81, John Henderson McNeill, "The Strategic Trust Territory in International Law." (Ph.D diss., University of London [Great Britain], 1974), 371. This quotation uses an earlier spelling of Enewetak.
  - 15 John W. Finney, "2 Nevada A-Tests in Air Scheduled," *NYT*, 26 June 1962, 1. Soon afterward, Finney wrote, "Until now the Administration, largely because of fall-out considerations, has limited all atmospheric testing to the remote islands in the Pacific. Testing at the Nevada proving grounds has been restricted to underground explosions, which produce no fall-out," John W. Finney, "Test over Nevada Set for Week-end," 7 July 1962, 7. See also Finney, "U.S. May Prolong A-Tests in Pacific," *NYT*, 1 August 1962, 1, 13.
  - 16 Michael R. Beschloss, *The Crisis Years: Kennedy and Khrushchev 1960-1963*, (New York: Edward Burlingame Books, 1991), 363.
  - 17 For details, *ibid.*, 370-71.
  - 18 Testimony of David Weiman, *Oversight Hearing before the Subcommittee on Oversight and Investigations of the Committee on Natural Resources on Radiation Exposure from Pacific Nuclear Tests*, House of Representatives, 103 Cong., 2d sess., 24 February 1994, Serial No. 103-68, 1,2. Also Davor Z. Pevec [attorney for the people of Enewetak Atoll], "Enewetak and the H-Bomb after 50 Years: A Time for Just Compensation," audiotaped and videotaped presentation on March 6, 2001 at the University of Hawaii at Manoa, Honolulu.
  - 19 Robert A. Conard et al., "Medical Survey of Marshallese Two Years After Exposure to Fall-Out Radiation," *The Journal of the American Medical Association*, vol. 164, no. 11 (July 13, 1957), 1192-1196; see also *NYT*, "Fall-Out Victims in Sound Health," 21 July 1957, 22. Additionally, Wataru W. Sutow and Robert A. Conard, in a U.S.-funded, undated paper titled "The Effects of Fallout Radiation on Marshallese Children" reported: "In 1963, a nodule was palpated in the thyroid gland of a 13-year-old girl who was exposed to fallout on Rongelap at the age of 3 years and 4 months. A total thyroidectomy was done." That meant total surgical removal of the enlarged gland, which they wrote contained "multiple nodules." The condition was diagnosed as "adenomatoid goiter" (benign tumor).
  - 20 Arjun Makhijani, Stephen I. Schwartz and William J. Weida, "Nuclear Waste Management and Environmental Remediation," in *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz, (Washington, D.C.: Brookings Institution Press, 1998), 353-393, esp. 379.
  - 21 See memorandum of decision and order of Nuclear Claims Tribunal No. 23-0902, signed 13 April 2000, in the matter of the People of Enewetak, et al., claimants for compensation. This is the Tribunal's first award for property damages. The first Carucci quote is on page 14. For references to U.S. Constitutional protections promised to the Enewetak people, see page 4. For promises of returning home within three to five years, see page 5, quoting statement of Captain

- John P. W. Vest, who had been appointed governor of the Marshall Islands. The second quote is from Laurence M. Carucci and Mary H. Maifeld, *Ien Entaan im Jerata: Times of Suffering and Ill Fortune: An Overview of Daily Life on Ujelang and Enewetak since 1946*, a report submitted to the Marshall Islands Nuclear Claims Tribunal in behalf of the People of Enewetak, March 1999, Claimants' Exhibit 147, 58-59.
- 22 The comparison is inexact in that the Hiroshima and Nagasaki bombs were detonated at about 2,000 feet, which resulted in creating little radioactive debris. The tests in the Pacific often produced much radioactive debris because they were detonated at or near the surface or under water.
  - 23 Robert C. Kiste, *The Bikinians: A Study in Forced Migration* (Menlo Park, Calif.: Cummings Publishing, 1974), 198.
  - 24 *Ibid.*, citing a remark made by Kissinger, who later became secretary of state, from Walter J. Hickel, *Who Owns America?* (New York: Coronet Communications, Paperback Library, 1972).
  - 25 Sidney Shalett, "First Atomic Bomb Dropped on Japan; Missile Is Equal to 20,000 Tons of TNT; Truman Warns Foe of a 'Rain of Ruin'," *NYT*, 7 August 1945, 1.
  - 26 The Associated Press, "Would Tell More of Eniwetok," *NYT*, 2 April 1952, 3.
  - 27 Austin Stevens, "U.S. Hints Progress on Hydrogen Bomb in Eniwetok Tests," *NYT*, 26 May 1951, 1, 9.
  - 28 Jay Walz, "Experiments for Hydrogen Bomb Held Successfully at Eniwetok; Leaks about Blast Under Inquiry," *NYT*, 17 November 1952, 1,
  - 29 *NYT*, "Hydrogen Blast in '52 Dug Mile-Wide Crater in Sea and Wiped Out Island," [subhead under "Eisenhower Asks Relaxing Of Secrecy on Atomic Data"], 18 February 1954, 1, 8.
  - 30 *NYT*, "Eisenhower Releases Movie of Superbomb," 27 March 1954, 1, 8; *NYT*, "Color Film of First H-Bomb Test Is Previewed by Press in Capital," 1 April 1954, 1, 22; *NYT*, "Films of H-Bomb Now Being Shown," 2 April 1954, 5; the film was broadcast several times on television and in some movie theaters; still photographs were published.
  - 31 United Press, "Fear Banned Bomb Film," *NYT*, 4 April 1954, 86.
  - 32 The Associated Press, "Films of Blast Draw Japanese," *NYT*, 8 April 1954, 8.
  - 33 Leo Egan, "No Basic Change in Civil Defense," *NYT*, 2 April 1954, 5.
  - 34 *NYT*, "Health Officers Ask Atomic Data," 11 December 1954, 9.
  - 35 John W. Finney, "Hydrogen Blast Fired 200 Miles Above The Pacific," *NYT*, 10 July 1962, 1.
  - 36 See the 1994 DOE list in Appendix Table 1.
  - 37 John W. Finney, "Scientists Given More A.E.C. Data," *NYT*, 15 April 1958, 1, 14. The article stated that still being withheld by the AEC for security reasons was the exact explosive force.
  - 38 The Associated Press, "U.S. Plans to Announce Every Test as It Occurs," *NYT*, 26 April 1962, 13.
  - 39 William L. Laurence, "Atom Test Series Starts in Pacific," *NYT*, 5 May 1956, 1, 10; William L. Laurence, "Small U.S. H-Bomb Believed Tested," *NYT*, 15 May 1956, 1, 18.
  - 40 William L. Laurence, "Airborne H-Bomb Exploded by U.S. over Pacific Isle," *NYT*, 21 May 1956, 1, 16.
  - 41 The Associated Press, "Scientists Studying H-Bomb Blast Data," *NYT*, 22 May, 1956, 1, 13.
  - 42 Anthony Leviero, "H-Bomb Air Drop Missed by 4 Miles," *NYT*, 16 June 1956, 1, 6; *NYT*, "Air Force Admits Miss With H-Bomb," 17 June 1956, 28.
  - 43 William L. Laurence, "H-Bomb Improved by Fall-Out Curb," *NYT*, 29 July 1956, 19.
  - 44 John W. Finney, "U.S. Eliminates 95% of Fall-Out From the H-Bomb," *NYT*, 25 June 1957, 1, 3; William L. Laurence, "Science in Review, Construction of a 'Clean' H-Bomb Presents Formidable Problems for the Experts," *NYT*, 23 June 1957, sec. 4, E9. A *Times* editorial said development of a "clean" bomb changes "the entire world balance of power and restores the scales again in favor of the free world;" see *NYT* "A 'Clean' Bomb," 22 June 1957, 22.

- 45 Citing Lapp, Richard G. Hewlett and Jack M. Holl, *Atoms for Peace and War 1953-1961: Eisenhower and the Atomic Energy Commission* (Berkeley: University of California Press, 1989), 347-48.
- 46 NYT, "U.S. Denies Tests Misuse Trust Area," 28 June 1956, 2.
- 47 See, for example, United Press, "Pacific Shocks Indicate U.S., Soviet Bomb Tests," NYT, 26 June 1956, 11; NYT, "New Atomic Blast Put 22 Miles High," 8 July 1956, 5; United Press, "Atom Blast Indicated," NYT, 9 July 1956, 12; United Press, "Bomb Test Is Reported," NYT, 23 July, 1956, 3.
- 48 United Press, "Bomb Test."
- 49 NYT, "Soviet Charges U.S. Hid 18 Atom Tests," 24 August 1958, 1, 36.
- 50 Cochran, Arkin, Norris and Hoenig, *Nuclear Weapons Databook*, 157-158.
- 51 John W. Finney, "A.E.C. Head Warns U.S. May Resume Tests If Ban Fails," 30 October 1958, 1, 10.
- 52 John W. Finney, "C.A.A. Broadcasts Atomic Test Data," NYT, 12 June 1958, 10.
- 53 James Reston, "Propaganda Tragedy," NYT, 1 April 1958, 14.
- 54 NYT, "Radio Activity [sic] Traced," 28 April 1959, 21. A week later, *The Times* reported in a longer, 18-paragraph article the AEC estimated a record amount of radioactive debris in the stratosphere. The United States and Great Britain contributed three times more to it than did the Soviets; see John W. Finney, "West's Fall-Out Triples Russia's," NYT, 6 May 1959, 23.
- 55 Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis: Naval Institute Press, 1994), 112.
- 56 NYT, "U.S. Will Test Atom as Submarine Killer," 10 May 1955, 1, 14.
- 57 United Press, "Fishermen Protest Atom Test," NYT, 12 May 1955, 5.
- 58 Dan Noyes, Maureen O'Neill and David Weir, "Operation Wigwam," *New West*, 1 December 1980, 25-38; Barton C. Hacker, *Elements of Controversy: The Atomic Energy Commission and Radiation Safety in Nuclear Weapons Testing 1947-1974* (Berkeley: University of California Press, 1994), 170-72; Defense Nuclear Agency, *Operation Wigwam* (Washington, D.C.: National Technical Information Service, 1981)[DNA 6000F].
- 59 United Press, "Atom Blast Fired Beneath Pacific," NYT, 18 May 1955, 11.
- 60 Michael Parenti, *Inventing Reality: The Politics of News Media*, 2d ed., (New York: St. Martin's Press, 1993), 201.
- 61 <http://www.gwu.edu/~nsarchiv/radiation/dir/mstreet/commeet/meet10/trnsc10b.txt>, accessed 10 January 2004.
- 62 The Associated Press, "Pentagon Confirms Secret Tests of Atom Weapons in '55 and '62," NYT, 16 December 1979, 72; Frank J. Prial, "Coast Freelance Unit Thrives on Reporting for TV," NYT, 10 September 1983, 28.
- 63 The Associated Press, "A-Bomb in Missile Exploded in Test Miles Above Sea," NYT, 2 August 1958, 1, 6. Radiation from the shot was considered to have burned out radio sets in Wallis Islands, 2,300 miles away, a Reuters account on the same page in *The Times* said.
- 64 The Associated Press, "Island Traffic Curbs Ended," NYT, 17 August 1958, 5; The Associated Press, "Hawaii to Get Atom-Test Word," NYT, 10 August 1958, 27; United Press International, "Hawaii is Assured," NYT, 9 August 1958, 13; see Finney, "C.A.A. Broadcasts Atomic-Test Data," indicating codename and times of Operation Hardtack tests were secret.
- 65 United Press International, "A.E.C. Test Draws Crowd," NYT, 13 August 1958, 11.
- 66 NYT, "Trust Isles Raise Atom Test Issue," 3 December 1961, 20; Firth, *Nuclear Playground*, 24.
- 67 NYT, [editorial], "The Nuclear Tests," 29 April 1962, 10 E.
- 68 The Associated Press, "U.S. Plans to Announce Every Test as it Occurs," NYT, 26 April 1962, 13.
- 69 John Finney, "Hydrogen Blast Fired 200 Miles Above the Pacific," NYT, 10 July 1962, 1. This was the Starfish Prime shot (Pac. No. 78 in Appendix Table 1).

- 70 John A. Osmundsen, "Samoans Terrified by H-Blast; Some Fear Heavens May Fall," *NYT*, 11 July 1962, 4.
- 71 The introductory material to this 1994 DOE list explains that the bombs dropped on Hiroshima and Nagasaki were not considered tests for purposes of the U.S. compilation. However, omission of the four failed Pacific tests in 1962 implies the Department also did not consider them as actual tests.
- 72 John Finney, "H-Bomb Destroyed in Air After Rocket's Radio Fails," *NYT*, 5 June 1962, 1, 7.
- 73 United Press, "U.S. Fails 2d Time in Altitude Shot," *NYT*, 21 June 1962, 1, 13.
- 74 Harold M. Schmeck Jr., "Hotspot to Mark Failure of Test," *NYT*, 21 June 1962, 13.
- 75 John Finney, "3rd Atom Test Fails; U.S. Faces Dilemma on Finishing Series," *NYT*, 27 July 1962, 1, 2.
- 76 John Finney, "4th Nuclear Shot Fails over Pacific; Another Scheduled," *NYT*, 17 October 1962, 1, 9.
- 77 John Finney, "U.S. Closes Series of A-Tests in Air; Urges World Ban," *NYT*, 5 November 1962, 1.
- 78 *Nuclear Weapons Databook*, 160.
- 79 Alexandra Brooks and Howard Hu, "China," in *Nuclear Wastelands*, 487-519, esp. 493.

## Chapter 6

- 1 Leslie R. Groves, *Now It Can Be Told: The Story of the Manhattan Project* (New York: Harper & Brothers, 1962), 434; Barton C. Hacker, *The Dragon's Tail: Radiation Safety in the Manhattan Project, 1942-1946* (Berkeley: University of California Press, 1987), 85.
- 2 Gordon E. Dean, *Forging the Atomic Shield: Excerpts from the Office Diary of Gordon E. Dean*, ed. Roger M. Anders (Chapel Hill, N.C.: University of North Carolina Press, 1987), 286.
- 3 William Burr, Thomas S. Blanton, and Stephen I. Schwartz, "The Costs and Consequences of Nuclear Secrecy," in *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz (Washington, D.C.: Brookings Institution Press, 1998), 433-483; quote is at 434.
- 4 Opening Statement of Senator Fred Thompson, 105th Cong., 1st sess., Hearing before the Committee on Governmental Affairs: *Report of the Commission on Protecting and Reducing Government Secrecy*, 7 May 1997, S. Hrg. 105-85, 2.
- 5 Prepared statement of Jonathan Weisgall [legal counsel to the people of Bikini], 104th Cong., 2d sess., *Hearing Before The Committee On Governmental Affairs*, United States Senate, 12 March 1996 [S. Hrg. 104-588], 330; also Advisory Committee on Human Radiation Experiments, *Final Report* (Washington, D. C.: U.S. Government Printing Office, 1995), 477-79.
- 6 Burr, Blanton and Schwartz, "The Costs and Consequences," 432.
- 7 Atomic Energy Act of 1946, P.L. 585, 79th Cong., 2d sess., 60 Stat. 755, (esp. p. 766 for basic research provision), 42 U.S.C. 1801-19.
- 8 Selecting these articles was made by using *The Times* annual indexes and searching the heading of *news and newspapers* and then the subheading of *U.S.* These articles serve as a representative sampling of press-government relations between 1946-62.
- 9 Allen Drury, "U.S. Suppression of News Charged," *NYT*, 8 November 1955, 25.
- 10 Daniel Patrick Moynihan with introduction by Richard Gid Powers, *Secrecy: The American Experience* (New Haven: Yale University Press, 1998), 154.
- 11 For details see Harrison Salisbury, *Without Fear or Favor: The New York Times and Its Times* (New York: Times Books, 1980), 483-492.
- 12 *Ibid.*, 492.
- 13 *Ibid.*, 633-34.
- 14 These statistics are based on a count of articles on these investigations as listed in *The New York Times* indexes for 1954-57 using the subject heading of *news* and subheading of *United States*.

- 15 NYT, "Editors See Peril in U.S. News Curb," 1 October 1951, 14; The Associated Press, "Press Fight Asked to Keep News Free," NYT, 18 November 1951, 46.
- 16 David Anderson, "Defense Secrecy Called Excessive," NYT, 21 March 1953, 11.
- 17 Allen Drury, "U.S. Suppression of News Charged," NYT, 8 November 1955, 25.; Testimony and Statements of James Reston, 84th Cong., 1st sess., *Availability of Information from Federal Departments and Agencies, Part 1, Panel Discussion With Editors et al.*, Hearings before a Subcommittee of the Committee on Government Operations, House of Representatives, 7 November 1955, 25-27, 59-60, 62-63; Allen Drury, "House Unit Hits U.S. on Secrecy," 29 July 1956, 26; United Press, "Editors' Aid Urged To Fight News Curb," NYT, 26 April 1957, 26; Allen Drury, "Army Aide Denies Press Stole Data," NYT, 2 July 1957, 11.
- 18 Burr, Blanton and Schwartz, "The Costs and Consequences," 463.
- 19 Adam Clymer, "A-Test 'Confusion' Laid to Eisenhower," NYT, 20 April 1979, 1, 20.
- 20 For Pentagon spokesman Arthur Sylvester's justification of "managed news" and of the right to lie to the U.S. people, see NYT, "U.S. Aide Defends Lying to Nation," 7 December 1962, 5.
- 21 NYT [editorial], "The Right Not to Be Lied To," 10 May 1961, 44.
- 22 See for example, the view of former AEC commissioner Henry DeWolf Smyth, who advocated more data be released so that private industry could exploit nuclear energy as a source for electrical power; this argument was also made by *Times* science editor Kaempffert in 1954 as the Eisenhower Administration was proposing legislation to do just that. See NYT, "Smyth Scores U.S. on Atom Program," 8 September 1958, 1, 12; Waldemar Kaempffert, "Science in Review, Unnecessary Secrecy Holds Back Peaceful Uses of Atomic Energy for All Nations," 9 February 1956, sec. IV, p. 11.
- 23 NYT, "2 New Categories Added To Secrecy," 20 March 1954, 4; NYT, "U.S. Atom 'Secret' Printed in Britain," 25 November 1954, 24.
- 24 See, for example, NYT, "Eisenhower Asks Relaxing Of Secrecy on Atomic Data," 18 February 1954, 1, 8 or Clinton P. Anderson, "The Test Debate: 'We Need to Know More,'" NYT Magazine, 25 February 1962, 5, 67, 68.
- 25 Censorship at the first Bikini test was alleged by a CBS correspondent in George Moorad, "Test Is Suspect, Radio Man Holds," NYT, 2 July 1946, 18.
- 26 Four *Times* articles indicated the U.S. government appeared to initiate more access for journalists to visit in 1952 the recently declassified areas of the Oak Ridge National Laboratory, to witness in 1958 the first AEC demonstration that atomic bombs were safely handled and to participate in 1955 for the first time in an airplane chase through atomic clouds over the Nevada Test Site; see The Associated Press, "Curtain at Oak Ridge Lifts For Press Tour," NYT, 14 February 1952, 12; Gladwin Hill, "A.E.C. Shows Atom Safety Test; Ends Secrecy on Accident Study," NYT, 22 September 1958, 1, 14; Gladwin Hill, "Air Force Planes Chase and Test Atomic Cloud After Nevada Blast," NYT, 2 March 1955, 1, 12. In a fourth case the AEC invited any newsmen (and TV cameras beaming coast-to-coast images) and civil defense officials to Nevada to view the nuclear explosion believed to be the most powerful of the 15 tested there thus far; William L. Laurence, "Atom Bomb Fired with Troops Near; Chutists Join Test," NYT, 23 April 1952, 1.
- 27 One of the articles categorized here involves Truman's berating the press, which is detailed in the text. In the second article, Baldwin in 1955 mentioned the views of defense and White House officials that the press had published weapons characteristics or technical information of value to an enemy; see Hanson W. Baldwin, "Pentagon's Press—1," NYT, 13 April 1955, 12. For another article in which Baldwin cites official sources in criticizing the free-loading, imbibing journalists who covered the first Bikini test, see "Press and Bikini," NYT, 3 August 1946, 6.
- 28 NYT [editorial], "How Much Secrecy?" 19 October 1951, 26; Gladwin Hill, "Tactical Bomb Test 'Secrets' Open To Thousands but Not to News Men," NYT, 18 October 1951, 18; see also Gladwin Hill "Rumors on Atom Test Irk A.E.C., But Security Rules Yield Little Else," NYT, 26 October 1951, 12.



- 29 United Press International, "Hydrogen Explosion Set Off Underground in Nevada," *NYT*, 7 July 1962, 1, 5.
- 30 *NYT* [editorial], "American Atmospheric Tests," 2 November 1961, 36.
- 31 *NYT* [editorial], "The Approaching Tests," 24 April 1962, 36; see also John W. Finney, "Kennedy Orders A-Testing in Air in Next Few Days," *NYT*, 25 April 1962, 1, 8.
- 32 Hanson W. Baldwin, "Problem of Secrecy in Atomic Age," *NYT*, 8 April 1946, 5.
- 33 *NYT* [editorial], "The Spring of 1959," 22 March 1959, sec. 4, 8; United Press International, "Pentagon Studying News on Argus Test," *NYT*, 27 April 1959, 12.
- 34 W.H. Lawrence, "President Accuses Press of Revealing Vital War Secrets," *NYT*, 5 October 1951, 1, 12; for an earlier example, see the three-paragraph story, *NYT*, "Truman Criticizes Press," 7 November 1947, 16.
- 35 Lawrence, "President Accuses" and *NYT*, "Text of Truman Security Statement and Transcript of Discussion," 5 October 1951, 12.
- 36 Lawrence, "President Accuses."
- 37 *NYT*, "Fortune Says A.E.C. Cleared Atom Article and Bought 500 Reprints for Distribution," 5 October 1951, 12.
- 38 Lawrence, "President Accuses" and United Press, "Yale Censors Its Study of Censorship Breaches," *NYT*, 5 October 1951, 12.
- 39 The articles covered five speeches by Adler, six by Sulzberger, four by assistant managing editor Turner Catledge and two by John Oakes, member of *The Times* editorial board. Some Adler speeches are discussed in the text.
- 40 For examples of Arthur Krock's "In The Nation" columns that were studied, see "The President's Secret Daily 'Newspaper,'" 16 July 1946, 22; "The Rising Barriers Against Public Information," 18 April 1952, 24; "Need of an Advisory Group on Security News," 17 February 1953, 26; "National Security and the 'Flow' of Information," 22 November 1962, 28; "More Complications Trying to 'Manage the News'," 4 December 1962, 40.
- 41 Krock, "Truman's Press Views Mystify the Capital, 7 October 1951, 157; Krock, "The Shrinking Channel of Access to the News," 15 November 1962, 34. Reston columns: "Report on Relations of President and Press," 23 December 1951, sec. 4, 3; "The Anonymous Advisers," 26 June 1958, 16; "Faith, Hope and Hagerty," 24 March 1959, 5; "Man Who Came to Dinner Stirred a Korea Policy Stew," 11 April 1952, 4; "The Arts of Black Magic and the Press," 26 April 1961, 38; "How To Make Life Worse Than It Actually Is," 14 July 1961, 22. Other Reston columns on this topic in issues of 16 February 1955 and 10 May 1961.

## Chapter 7

- 1 William L. Laurence, "Huge New Atom Gun to Tear World Veil," *NYT*, 24 October 1939, 28. Later, Laurence greatly inflated the status of Prometheus, calling him the "legendary father of civilization;" see "The Last Gap Is Filled in Element Table," *NYT*, 18 September 1947, 27.
- 2 William L. Laurence, *Men and Atoms: The Discovery, the Uses and the Future of Atomic Energy* (New York: Simon and Schuster, 1959), 7; William L. Laurence, "Atomic Factories Incredible Sight," *NYT*, 29 September 1945, 6.
- 3 Stephane Groueff, *Manhattan Project: The Untold Story of the Making of the Atomic Bomb* (London: Collins, 1967), 145.
- 4 William L. Laurence, *Dawn over Zero: The Story of the Atomic Bomb* (Westport, Conn.: Greenwood Press, 1946), 2d. ed. Enlarged, 148; Pierre Grimal, *A Concise Dictionary of Classical Mythology*, ed. Stephen Kershaw, trans. A. R. Maxwell-Hyslop (Oxford, England: Basil Blackwell, 1986), 167.
- 5 Interviews with author: Hans Behling, health physicist with S. Cohen and Associates, Inc. of McLean, Virginia, 5 June 2002; sociologist emeritus Johan Galtung, 25 March 2002; John Yaukey, technology specialist with Gannett News Service, 26 November 2001.
- 6 William L. Laurence, "Element 94 Key to Atomic Puzzle," *NYT*, 5 October 1945, 4.

- 7 Glenn T. Seaborg, "Foreword," in Jonathan Weisgall, *Operation Crossroads: the Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), ix-xiv, esp. x.
- 8 Ralph E. Lapp, *The Voyage of the Lucky Dragon* (New York: Harper and Brothers Publishers, 1958), 180-81.
- 9 Merrill Eisenbud and Thomas Gesell, *Environmental Radioactivity: From Natural, Industrial and Military Sources*, 4th ed. (San Diego: Academic Press, 1997), 26.
- 10 John W. Gofman, *Radiation and Human Health* (San Francisco: Sierra Club Books, 1981), 469-491, esp. 476.
- 11 Eisenbud and Gessell, *Environmental Radioactivity*, quote is at 26.
- 12 Barton C. Hacker, *Elements of Controversy: The Atomic Energy Commission and Radiation Safety in Nuclear Weapons Testing 1946-1974* (Berkeley: University of California Press, 1994), 173; Behling interview.
- 13 Glenn T. Seaborg, "The Discovery of Plutonium in the Cyclotron," in *The Metal Plutonium*, ed. A.S. Coffinberry and W.N. Miner (Chicago: University of Chicago Press, 1961), 9.
- 14 Helen Caldicott, "Nuclear Shadow: The Weapons, The Power, The Waste," *Nation*, 262, no. 17 (29 April 1996), 14; William Burr, Thomas S. Blanton, and Stephen I. Schwartz, "The Costs and Consequences of Nuclear Secrecy," in *Atomic Audit, The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz (Washington, D. C.: Brookings Institution Press, 1998), 433-83, esp. 469.
- 15 Groueff, *Manhattan Project*, 166.
- 16 Samuel Glasstone, *Sourcebook on Atomic Energy* (Princeton, N.J.: D. Van Nostrand Co., 1967), 3d ed., 136; NYT, "Mme. Curie Is Dead; Martyr to Science," 5 July 1934, 1; Emilio Segre, *From X-Rays to Quarks: Modern Physicists and Their Discoveries* (San Francisco: W.H. Freeman and Co., 1980), 37, 40.
- 17 U.S. Atomic Energy Commission, *Fourth Semi-Annual Report to Congress* (Washington, D. C.: Government Printing Office, 1948), 8.
- 18 Laurence, "Scientists 'Create' in Atomic Project," NYT, 4 October 1945, 4; Laurence, "Element 94 Key," 3.
- 19 William L. Laurence, "Plutonium Lifted by New Chemistry," NYT, 8 October 1945, 6; Laurence, "Atomic Factories."
- 20 William L. Laurence, "Fiery 'Super Volcano' Awes Observer of 3 Atom Tests," NYT, 1 July 1946, 1, 5.
- 21 News items were selected by studying the 1946-62 indexes of *The Times* and then retrieving those items listed under the subject heading of *plutonium*. Articles retrieved for this database can reasonably be expected to represent what *The Times* deemed the most significant articles on plutonium annually because the newspaper incorporated them into its indexing system. The 128 articles selected are a sample of the 1,152 articles that mentioned plutonium based on a full-text search made of *The Times* online archive, which is operated by ProQuest Archiver, from January 1, 1946 to December 31, 1962, as accessed January 12, 2004.
- 22 The subject matter of the 128 articles about plutonium in the United States and abroad from 1946-62 was categorized as follows:
  - 33 articles on the post-war production and control of the atomic bomb, of which plutonium was a vital component;
  - 11 articles about the only U.S. plutonium-producing facility in Hanford, Washington; several articles were based on *Times* reporters' visits there;
  - 72 articles about other plutonium production processes related to electricity generation, patents, policies, prices related more to civilian than to military uses;
  - 7 articles about the theft or disappearance of containers of plutonium;
  - 5 articles related to the biological effects of plutonium.

The year that the United States signed the treaty to ban the testing of atmospheric and underwater nuclear testing was also the year that the first order for a privately owned nuclear

- power plant was placed in 1963 by a U.S. utility, according to Eisenbud and Gesell, *Environmental Radioactivity*, 532.
- 23 North American Newspaper Alliance, "RAREMETAL [sic] 'BUMPS' PLUTONIUM POISON," *NYT*, 22 February 1948, 10.
  - 24 Hanson W. Baldwin, "The Need for Atom Arms," *NYT*, 30 June 1958, 14; Robert K. Plumb, "Elusive Element Is Seen First Time," *NYT*, 17 April 1958, 29. In a separate search of *The Times* online archive made January 12, 2004, only five of the 1,152 articles mentioning plutonium also contained the words *half life*. Again the very short half lives of other elements were given numerically, such as the 27-year half lives of strontium 90 and cesium 137 and the 23-minute half life of thorium 233. But the long half life of 24,000 years for plutonium was un-mentioned.
  - 25 United Press International, "Radiation Phial Lost," *NYT*, 20 January 1962, 7.
  - 26 The Associated Press, "French Close Atomic Pile," *NYT*, 7 July 1960, 13.
  - 27 The Associated Press, "4 Exposed to Atomic Peril," *NYT*, 26 January 1960, 42.
  - 28 Austin C. Wehrwein, "Control Sought Over Plutonium," *NYT*, 27 February 1958, 15.
  - 29 *NYT*, "Atomic Saw," 25 October 1958, 30.
  - 30 Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: The Dial Press, 1999), 193; Advisory Committee on Human Radiation Experiments, *Final Report* (Washington, D.C.: U.S. Government Printing Office, 1995), 83-112; quote is at 90.
  - 31 Hanson W. Baldwin, "New Atomic Capital," *NYT Magazine*, 30 July 1950, 17, 19; quote is at 17.
  - 32 Caldicott, "Nuclear Shadow," 14.
  - 33 Arjun Makhijani, A. James Ruttenber, Ellen Kennedy, and Richard Clapp, "The United States," in *Nuclear Wastelands: A Global Guide to Nuclear Weapons Production and Its Health and Environmental Effects*, ed. Arjun Makhijani, Howard Hu and Katherine Yih (Cambridge, Mass.: The MIT Press, 1995), 169-284.
  - 34 Citing Karl Darrow, Spencer R. Weart, *Nuclear Fear: A History of Images* (Cambridge, Mass.: Harvard University Press, 1988), 98.
  - 35 A. Costandina Titus, "Selling the Bomb: Public Relations Efforts by the Atomic Energy Commission during the 1950s and early 1960s," *Government Publications Review* 16 (January/February 1989), 25.
  - 36 Arjun Makhijani, "A Readiness to Harm," in *Nuclear Wastelands*, quote at 5.

## Chapter 8

- 1 Robert C. Kiste, "Pre-Colonial Times," in *Tides of History: The Pacific Islands in the Twentieth Century*, ed. K.R. Howe, Robert C. Kiste, and Brij V. Lal (Honolulu: University of Hawaii Press, 1994), 11, 14-16.
- 2 Kiste reported that 170 inhabitants lived on Bikini Atoll but that only 161 residents were moved by the U.S. Navy in 1946 with nine others temporarily absent because of employment, hospitalization, or education; see Robert C. Kiste, *The Bikinians: A Study in Forced Migration* (Menlo Park, Calif.; Cummings Publishing Co., 1947), 12. U.S. officials in official proceedings often use other figures and theirs are then used to preserve the accuracy of what transpired in the proceedings or what *The Times* reported.
- 3 Jonathan M. Weisgall, "The Nuclear Nomads of Bikini Atoll," *Foreign Policy* 39 (summer 1980), 74-98.
- 4 Testimony of Admiral William H.P. Blandy, 79th Cong., 2d sess., *Hearing before the Special Committee on Atomic Energy, United States Senate, Pursuant to S.Res. 179*, 24 January 1946, 453-61; Bikini comments at 457-58.
- 5 Beverly Ann Deepe Keever, "The Pacific Islanders," in *U.S. News Coverage of Racial Minorities: A Sourcebook, 1934-1996*, ed. Beverly Ann Deepe Keever, Carolyn Martindale, Mary Ann Weston (Westport, Conn.: Greenwood, 1997), 261-307, especially 272.

- 6 Blandy, *Hearing before the Special Committee*, 24 January 1946, 453-461; Bikini comments at 457-458. Congressional materials and *Times* articles of this period used the spelling of Eniwetok and it is then retained in this study. Otherwise, the preferred spelling of Enewetak is used.
- 7 Sidney Shallet, "Test Atomic Bombs to Blast 100 Ships at Marshalls Atoll," *NYT*, 25 January 1946, 1, 4; quote is at 4.
- 8 U.S. House Committee on Naval Affairs, *Hearings on House Joint Resolution 307*, 29 January 1946, 2429; Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), 106.
- 9 *NYT*, "Secrecy Favored on Atom Test Data," 31 January 1946, 8. The January 29th hearing was continued to the next morning and *The Times* reported on it.
- 10 This assessment was made by reviewing *The Times* 1946 index for the entries beginning with atomic and with U.S. Congress—Senate and also by scanning the three issues of *The Times* that followed the dates of each hearing.
- 11 *Hearing Before the Committee on Naval Affairs, United States Senate, on H.J. Res. 307, Part 2*, 79th Cong., 2nd sess., 18 April 1946, 21-44.
- 12 Statement of Vice Admiral William H. Blandy, *Hearing Before the Committee on Naval Affairs, United States Senate, on H.J. Res. 307, Part 2*, 79th Cong., 2nd sess., 18 April 1946, 39.
- 13 Hanson W. Baldwin, "Atom Bomb Test Need," *NYT*, 10 April 1946, 17. Science Editor Waldemar Kaempffert so wrote in *The Times* regular Sunday "Science in Review" column the day before the first Bikini test that the experiments would undoubtedly provide information of great scientific value although many scientists had disputed this expectation; Kaempffert, "Science in Review: Much Valuable Information Should Be Gained From Atomic Bomb Tests at Bikini," *NYT*, 30 June 1946, E9.
- 14 *NYT* [editorial], "The Atomic Bomb Test," 26 January 1946, 12; *NYT* [editorial], "The Bomb Test," 30 January 1946, 12.
- 15 Weisgall, *Operation Crossroads*, 96.
- 16 United Press, "Celler Urges Ban on Bomb," *NYT*, 25 January 1946, 4.
- 17 John H. Crider, "Atom Bomb 'Fears' Held Policy Issue," *NYT*, 26 May 1946, 7. The oppositional views of the Federation of American Scientists were buried in the last five paragraphs of this 25-paragraph story.
- 18 Weisgall, *Operation Crossroads*, 98-99, citing Oppenheimer letter to Truman, May 3, 1946.
- 19 Quoting E.E. Schattschneider, Gerald A. Kosicki, "Problems and Opportunities in Agenda-Setting Research," *Journal of Communication* 43, no. 2 (Spring 1993), 113.
- 20 Letter from University of Rochester physics professor L.A. Du Bridge, "Atomic Test Queried," *NYT*, 5 May 1946, 8, which was countered by one written by two scientists connected with Joint Task Force One; see Ralph A. Sawyer and John von Neuman, "Atomic Tests Defended," *NYT*, 19 May 1946, 8.
- 21 *NYT*, "Atomic Test Issue," 30 March 1946, 1, 9.
- 22 U.S. *Congressional Record*, 79th Cong., 2d sess., 1946, pt. 3; S2790 (daily ed., March 29, 1946); also Weisgall, *Operation Crossroads*, 96.
- 23 *NYT*, "Atomic Test Issue;" *ibid.*, *Congressional Record* and Weisgall, *Operation Crossroads*, 95-99.
- 24 *NYT*, "Atomic Test Issue," 1.
- 25 *NYT*, "Compton, Dewey Urge the Tests," 30 March 1946, 9.
- 26 U.S. *Congressional Record*, 79th Cong., 2d sess., 1946, pt. 3; S2790 (daily ed., March 29, 1946); also Weisgall, *Operation Crossroads*, 96.
- 27 U.S. *Congressional Record*, S2794.
- 28 Weisgall, *Operation Crossroads*, 97.
- 29 U.S. *Congressional Record*, 79th Cong., 2d sess., 1946, H4023-4024 (daily ed., April 18, 1946); Weisgall, *Operation Crossroads*, 97.
- 30 C.P. Trussell, "Senate Approves Bikini Test Fleet," *NYT*, 15 June 1946, 4.

- 31 Ibid.; U.S. *Congressional Record*, 79th Cong., 2d sess., 1946, Pt 6: S6926-33 (daily ed., June 14, 1946); Weisgall, *Operation Crossroads*, 101-03.
- 32 Weisgall, *Operation Crossroads*, 161, 154, 155; quote at 97.
- 33 Harvey Wasserman and Norman Solomon with Robert Alvarez and Eleanor Walters, *Killing Our Own: The Disaster of America's Experience with Atomic Radiation* (New York: A Delta Book, 1982), 37, 38.
- 34 Weisgall, *Operation Crossroads*, 155-58.
- 35 Ibid., 13, 112-14; quote at 114.
- 36 Ibid., 121; see also The Associated Press, "Photo Work Good in Atom Bomb Rehearsal; 300 Aerial Cameras Will 'Shoot' Bikini Blast," *NYT*, 18 March 1946, 3 and *NYT*, "To Record 'Operation Crossroads' in the Pacific," 12 March, 1946, 12.
- 37 Sidney Shalett, "ABC of the Bikini Test, Milestone of Our Age," *NYT*, 23 June 1946, 10E.
- 38 Sidney Shalett [text] and Bertrand Zadig [drawings], "Operation Crossroads," *NYT Magazine*, 17 February 1946, 8-9.
- 39 The "helping hand" gesture made by a member of the dominant race to African Americans or other non-Caucasian groups in the United States is a not-so-subtle way of implying superiority, according to comments made by Lillian Dunlap at a workshop on stereotyping sponsored by the Newspaper Division and the Minorities in Communication Division at the national convention of the Association of Education in Journalism and Mass Communication, Chicago, August 1996.
- 40 For a discussion, see Beverly Ann Deepe Kever, "The Origins and Colors of a News Gap," in *U.S. News Coverage*, 1-21.
- 41 Prepared statement of Phillip Muller [Foreign Minister of the Republic of the Marshall Islands], 104th Cong., 2d sess., *Human Radiation Experiments: Hearing Before The Committee On Governmental Affairs United States Senate*, 12 March 1996 [S. Hrg. 104-588], 10-11, 26, 157-163; quote is at 157, citing scientist Merrill Eisenbud, Atomic Energy Commission, "Minutes of Advisory Committee on Biology and Medicine," New York, 1956, p. 238.
- 42 The Associated Press, "Bikini Natives Move," *NYT*, March 12, 1946, 17.
- 43 United Press International, "Bikini Atoll Evacuation Cited to UNO Site Areas," *NYT*, 3 March 1946, 31.
- 44 Weisgall, *Operation Crossroads*, 106-11, quote is at 108.
- 45 The Associated Press, "More Islanders Moved," *NYT*, 4 June 1946, 17.
- 46 Lt. (jg) E. J. Rooney, "The Strange People of Bikini," *NYT Magazine*, 31 March 1946, 23, 50.
- 47 The Associated Press, "Bikini Bomb Blast on Today; Epic Naval Test Is Set Up," *NYT*, 30 June 1946, 1, 3; quote is at 3.
- 48 Robert Trumbull, "A Swing Around Our Pacific 'Empire,'" *NYT Magazine*, 19 May 1946, 1, 13, 59-61; Robert Trumbull, "Role for Carrier in Atom Warfare Championed by Admiral Pownall," *NYT*, 20 February, 1946, 10.
- 49 *NYT*, "Scientists Confirm Origin of Atolls, Study Isle of 127 Persons, 25 Pigs," 23 October 1952, 3.
- 50 *NYT*, [editorial], "But Why Come Home?," 24 October 1952, 22.
- 51 Leonard Mason, "The Bikinians: A Transplanted Population," in *Human Organization* 9, no. 1 (spring 1950), 5-15; quote is at 15.
- 52 Weisgall, *Operation Crossroads*, 194.
- 53 The computation, made in square inches, tallied as Bikini-related elements the three-line banner headline, the three-column photograph with its caption and headline, the left-hand lead article with its subheads, Laurence's article with headline and the first two items in the standing column titled World News Summary.
- 54 See also Hanson Baldwin's Sunday analysis, "Atom Bomb Is Proved Most Terrible Weapon," *NYT*, 7 July 1946, 70.

- 55 William L. Laurence, "Fiery 'Super Volcano' Awes Observer of 3 Atom Tests," *NYT*, 1 July 1946, 1, 5; quote is at 5.
- 56 Weisgall, *Operation Crossroads*, 151.
- 57 Laurence, "Fiery 'Super Volcano'," 5.
- 58 The Associated Press, "Bikini Television Shows No Motion," *NYT*, 1 July 1946, 5.
- 59 United Press, "Bikini Atom Bomb Not So Powerful As One at Nagasaki, Blandy Says," *NYT*, 3 July 1946, 1, 3; quote is at 3.
- 60 The Associated Press Wirephoto, "A Peaceful Scene on Bikini," *NYT*, 4 July 1946, 4.
- 61 Jack Niedenthal, *For the Good of Mankind: A History of the People of Bikini and their Islands* (Majuro, Marshall Islands: Micronitor Publishing, 2001), 91-114; A. Costandina Titus, "Selling the Bomb: Public Relations Efforts by the Atomic Energy Commission during the 1950s and 1960s," *Government Publications Review* 16 (Jan/Feb 1989), 17.
- 62 The Associated Press, "Greater Havoc at Bikini Revealed On Closer Inspection by Observers," *NYT*, 4 July 1946, 1, 4; quote is at 1.
- 63 Weisgall, *Operation Crossroads*, 199.
- 64 The Associated Press, "Preliminary Reports to President on Bikini," *NYT*, 12 July 1946, 4. Effects of the Able test on Bikini Island are noted in the fifth of six paragraphs in the statement of the President's commission and in the 16th of 21 paragraphs in that of the Joint Chiefs' Evaluation Board.
- 65 Felix Belair Jr., "Survey At Bikini Finds Redesigning of Fleet Needed," *NYT*, 12 July 1946, 1, 4.
- 66 *NYT* [editorial], "First Report On Bikini," 12 July 1946, 16.
- 67 Weisgall, *Operation Crossroads*, 132-140.
- 68 United Press, "Bikini King Amazed at Changed Realm," *NYT*, 24 July 1946, 12.
- 69 The Associated Press, "King Sees 'Big Boom'," *NYT*, 25 July 1946, 2.
- 70 The Associated Press, "Bikini Natives' Cemetery, Two Huts, Dogs Remain," *NYT*, 30 July 1946, 8.
- 71 For example, before the underwater Baker test, *The Times* published advance articles written by its two specialized reporters. In a 20-paragraph article, William Laurence buried in the next-to-last paragraph the prediction of damage caused by "large amounts of highly radioactive fission products in the waterspout, which may land on the decks of the ships and make them untenable for human beings." See William L. Laurence, "'Tree' Spectacle Forecast," *NYT*, 24 July 1946, 1, 5; quote is at 5. The one-column headline above the article by Hanson W. Baldwin focused on "lethal radioactivity" but he mentions that danger only in passing in the seventh of a 20-paragraph story on military strategy: "Lethal Radioactivity and Violent Waves Held Likely Results of Atom Bomb Blast," *NYT*, 28 June 1946, 5.
- 72 William L. Laurence, "Blast Biggest Yet," [subhead under 3-line banner], *NYT*, 25 July 1946, 1, 2; quote is at 2.
- 73 *NYT* [editorial], "The Underwater Test," 26 July 1946, 20.
- 74 Hanson W. Baldwin, "Thin-Hulled Ships Survive At Bikini," *NYT*, 27 July 1946, 3.
- 75 The Associated Press, "The Nagato Apparently Sinking," *NYT*, 27 July 1946, 3.
- 76 Hanson W. Baldwin, "Radioactivity Bar to Bikini Surveys," and The Associated Press, "The Nevada Now Listing," *NYT*, 28 July 1946, 31.
- 77 Hanson W. Baldwin, "Bikini Ships Show Rising Blast Harm," *NYT*, 29 July 1946, 2.
- 78 Hanson W. Baldwin, "Operation Crossroads Findings," *NYT*, 30 July 1946, 8.
- 79 *NYT* [editorial], "Radioactivity At Bikini," 30 July 1946, 22.
- 80 The Associated Press, "Floating Drydock Sinks at Bikini; Blandy Calls Bomb Poison Weapon," *NYT*, 6 August 1946, 1, 14; quote is at 1.
- 81 Weisgall, *Operation Crossroads*, 224, 243, quote at 306; The Associated Press, "Report Tells of '46 Warning on Atomic Tests," *NYT* [Nexis document], 25 May 1983, sec. A, 16.

- 82 Hanson W. Baldwin, "Atomic Rays Deal Death Stealthily; Bikini Has Uncovered No Defenses," *NYT*, 2 August 1946, 7.
- 83 United Press, "Undersea Bomb Reveals Threat to World's Fish," 10 August 1946, 6.
- 84 Hanson W. Baldwin, "Army-Navy Group Will Go to Bikini," *NYT*, 22 September 1946, 34.
- 85 See, for example, *NYT*, "Notes on Science: Bikini Aftermath," 5 January 1947, IV, 11; United Press, "Sinking of Prinz Eugen After Atom Test Bared," *NYT*, 9 January 1947, 6; The Associated Press, "Navy to Tow Bikini Ships Across Pacific for Tests," *NYT*, 20 January 1947, 10; *NYT*, "Bikini Ships Named," 30 January 1947, 2; *NYT*, "Atom-Bombed Ship Undergoes Study," 11 May 1947, 9; *NYT*, "Ship Returns from Bikini," 19 June 1947, 43. In 1948, the list continued with Associated Press, "4 Bikini ships Scuttled," *NYT*, 13 March 1948, 8; Associated Press, "Two U.S. Bikini ships Sunk," *NYT*, 25 March 1948, 14; United Press, "Radioactive Destroyer Sunk," *NYT*, 21 April 1948, 54; *NYT*, "The New York, Nevada, A-Bomb Survivors, Will be Targets for Fleet Fire Next Month," 9 June 1948, 9.
- 86 The Associated Press, "Flagship Still Radioactive Weeks After Bikini Test," *NYT*, 26 August 1946, 2.
- 87 William L. Laurence, "Atom Effects: World-Wide Ruin by Contamination Held Doubtful," *NYT*, 29 August 1950, 8; see also United States Department of Defense and the United States Atomic Energy Commission, *The Effects of Atomic Weapons*, ed. Samuel Glasstone (Washington, D. C.: Government Printing Office, 1950).
- 88 For examples of three Page 1 articles on European displaced persons just as the Bikinians were being exiled from their homeland, see *NYT*, "Plight of Uprooted Persons Up in 20-Nation Talks Today," 8 April 1946, 1, 5; *NYT*, "Rifkind Says Settling of Jews Is Urgent, Backs Army Care," 8 April 1946, 1; *NYT*, "795 Immigrants Reach U.S. Haven, First Under Truman's Alien Order," 21 May 1946, 1.
- 89 Leonard Edward Mason, "Relocation of the Bikini Marshallese: A Study in Group Migration." (Ph.D. diss., Yale University, 1954).
- 90 Weisgall, *Operation Crossroads*, 311-312.
- 91 *NYT*, "166 Bikini Natives To Be Moved Again," 3 October 1947, 15.
- 92 *NYT* [editorial], "Bikini Aftermath," 28 September 1947, sec. 4, E11.
- 93 *NYT*, "Navy Will Assist Natives of Bikini," 23 January 1948, 12.
- 94 United Press, "Bikini Islanders Move Again," *NYT*, 15 March 1948, 2.
- 95 Niedenthal, *For the Good of Mankind*, 137, based on an oral history with Lore Kessibuki in May 1991 before his death in 1994.
- 96 Anthony Leviero, "U.S. Atomic Proving Ground Being Built on Pacific Atoll," *NYT*, 2 December 1947, 24.
- 97 The Associated Press, "Secret Closely Kept," *NYT*, 2 December 1947, 24; Associated Press, "U.S. Completes Removal of Eniwetok Inhabitants," *NYT*, 25 December 1947, 14.
- 98 The Associated Press, "Secret Closely Kept."
- 99 The Associated Press, "U.S. Completes Removal."
- 100 Defense Nuclear Agency, *Operation Hardtack I 1958*, Washington, D. C., 1982, 1, 207; Stewart Firth, *Nuclear Playground: Fight For An Independent and Nuclear Free Pacific* (Honolulu: University of Hawaii Press, 1987), 24.
- 101 The Associated Press, "Bikini 'King' Goes Home," *NYT*, 7 August 1947, 2; *NYT*, "Bikini DP's Reported Now Self-Sufficient, But Older Ones Pine for Lagoon," 21 April 1947, 27; *NYT*, "U.S. Pacific Wards Showing Progress," 26 December 1951, 2.
- 102 *NYT*, "U.S. to Pay Claims of Atomic Exiles," 20 June 1956, 6; The Associated Press, "Displaced Islanders Paid," *NYT*, 27 November 1956, 8; *NYT*, "U.S. Settles Claims on H-Bomb Atolls," 29 May 1957, 6.
- 103 *NYT*, "Bikini Aftermath," 28 September 1947, sec. 4, E11. See also *NYT*, "Notes on Science—Marine Life Survives on Bikini Atoll," 23 November 1947, sec. 4, E9; The Associated Press,

- "Bikini Wild Dog Caught," *NYT*, 30 July 1947, 22; *NYT*, "U.S. to Study Bikini Flora To Gauge Effect of Bombs," 28 June 1947, 6.
- 104 United Press, "Particles of Undersea Atomic Bomb Create Permanent Perils, Bikini Monitor Declares," *NYT*, 23 November 1948, 25. *The Times* also reviewed Bradley's book, repeating Bradley's point about the persistence and deadliness of radioactivity; see Orville Prescott, "Books of the Times," 23 November 1948, 27.
- 105 The Associated Press, "Bikini Sea Mites Called Radioactive 'Carriers'," *NYT*, 3 January 1948, 8.
- 106 The Associated Press, "Fish Reported Living On Since Bikini Atom Blast," *NYT*, 13 January 1949, 15.
- 107 The Associated Press, "Bikini Atoll Food Still Radioactive," *NYT*, 25 September 1949, 4. See also Associated Press, "To Study Atomic Test Islands," *NYT*, 19 July 1949, 4.
- 108 The Associated Press, "Corn Freaks Grow from Atomic Tests," *NYT*, 16 December 1951, 53.
- 109 *NYT*, "Nicotine Doubted as Cancer Factor," 17 April 1955, 55.
- 110 The Associated Press, "Radioactivity of Ocean Is Reported Multiplied," *NYT*, 22 October 1955, 11.
- 111 *NYT*, "Bomb-Test Islands Unsafe for Years," 23 June 1956, 4.
- 112 United Press, "Atoll Fall-Out 'Light,'" *NYT*, 3 August 1956, 21.
- 113 Many anthropologists were on specific research assignments that permitted them to travel extensively in the TTPI, usually to talk to informants among different island groups. Eleven served as staff or district anthropologists, who wrote in-depth reports for trust administrators about conditions of the inhabitants. For their work, see for example, Mason, "The Bikinians: A Transplanted Population," and Leonard Mason, "Micronesia: Marshalls, Gilberts, Ocean Island, and Nauru," in *Geography of the Pacific*, ed. Otis W. Freeman (New York: John Wiley & Sons, 1951), 270-297.
- 114 See, for example, U.N. Trusteeship Council, "Report on the Trust Territory of the Pacific Islands," Official Records, 18th sess., (7 June-14 August 1956), supplement no. 3.
- 115 Neal O. Hines, "Bikini Report," *The Scientific Monthly* 72, no. 2 (February 1951), 102-113, especially 107, 108. The University of Washington research about which Hines wrote was noted as early as spring 1949 in the AEC's semi-annual reports to Congress and provided enough details to warrant an enterprising reporter's telephone calls.
- 116 *NYT* [editorial], "New Atomic Arms," 19 May 1948, 26.
- 117 Richard G. Hewlett and Francis Duncan, *Atomic Shield: A History of the United States Atomic Energy Commission, vol. 2, 1947/1952* (Washington, D.C.: Atomic Energy Commission, 1972), 65, 140, 149, 159, 161-65.
- 118 The Associated Press, "Atom Test Group Set for Eniwetok," *NYT*, 23 December 1947, 14.
- 119 The Associated Press, "Secret Closely Kept."
- 120 The Associated Press, "Atomic Weapons Tests Barred to Foreign Eyes," *NYT*, 6 February 1948, 17.
- 121 *NYT* [editorial], "New Atomic Arms."
- 122 Jay Walz, "U.S. Secretly Tests Atom Weapon; Lilienthal Board Will Be Renamed," *NYT*, 20 April 1948, 1, 2.
- 123 Anthony Leviero, "3 New Atomic Arms in Arsenal of U.S. Pass Severe Tests," *NYT*, 18 May 1948, 1.
- 124 William L. Laurence, "Science in Review: A Swift Succession of Significant Events Occurs in the Field of Atomic Energy," *NYT*, 7 December 1947, sec. 4, E II.
- 125 The Associated Press, "Atom Tests Unaffected," *NYT*, 7 July 1950, 3.
- 126 Austin Stevens, "Tests Prove Gains in Hydrogen Bomb," *NYT*, 14 June 1951, 1, 3; quote is at 3.



- 127 The Associated Press, "Atom Tests at Eniwetok Held for Civil Defense," *NYT*, 12 May 1951, 4 and Austin Stevens, "U.S. Hints Progress on Hydrogen Bomb in Eniwetok Tests," *NYT*, 26 May 1951, 1, 9; quote is at 9.
- 128 See, for example, W.H. Lawrence, "New Atomic Tests Set for Eniwetok," *NYT*, 21 March 1951, 1, 15; *NYT*, "'Nuclear Fission' Tests On In Pacific, Says Senator," 24 April 1951, 8; The Associated Press, "Capital Sees Indications of Vast New Atom Blast," *NYT*, 24 May 1951, 31.
- 129 United Press, "Atomic Blasts Not a Bar to Troops, Says Observer of Tests of Eniwetok," *NYT*, 13 May 1951, 1, 6, referring to Sen. Henry Jackson, Democrat of Washington, who said there were no radioactive after-effects from the test explosion and troops moved into the area within minutes; *NYT*, "Recent Atom Tests Declared A Success," 13 June 1951.
- 130 See William L. Laurence, "Design State Seen on Hydrogen Bomb," *NYT*, 26 May 1951, 9; Hanson W. Baldwin, "Atomic Race in 1951," 7 June 1951, 4 and *NYT*, "Eniwetok Data for Further Tests," [Sunday science brief signed W.K.], 24 June 1951, 9.
- 131 *NYT*, [AEC photograph], "The 1951 Atomic Blast at Eniwetok," 14 June 1951, 1.
- 132 The Associated Press, "Apocalyptic Blast of Bomb Depicted," *NYT*, 15 June 1951, 8; Samuel T. Williams, "Headliners—F Edward Hebert," *NYT Magazine*, 1 July 1951, 17.
- 133 *NYT*, "Films of H-Bomb Now Being Shown," 2 April 1954, 5; Bev Keever, "Fallout: Enewetak Atoll, 50 years ago this week," *Honolulu Weekly*, 30 October-5 November 2002, 6-8.
- 134 Merril Eisenbud, *An Environmental Odyssey: People, Pollution, and Politics in the Life of a Practical Scientist* (Seattle: University of Washington Press, 1990), 70.

## Chapter 9

- 1 Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York: Simon & Schuster, 1995), 541.
- 2 Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), 9, 306-07; see also Hans Behling, John Mauro, Kathleen Behling, "Reassessment of Acute Radiation Doses Associated with Bravo Fallout at Utrik Atoll," May 2002, prepared for the Utrik Local Government Council, P.O. Box 741, Majuro, MH 96960.
- 3 The Associated Press, "Atomic Tests Likely in March," *NYT*, 7 February 1954, 2; *NYT*, "Atom Blast Opens Test in Pacific; No Hint of Hydrogen Plans Given," 2 March 1954, 1, 6.
- 4 Weisgall, *Operation Crossroads*, 302, 303, quote at 306.
- 5 Ralph E. Lapp, *The Voyage of the Lucky Dragon* (New York: Harper and Brothers Publishers, 1957), 187.
- 6 Weisgall, *Operation Crossroads*, 303-04; Robert A. Conard, "Fallout: The Experiences of a Medical Team in the Care of a Marshallese Population Accidentally Exposed to Fallout Radiation." Upton, N.Y.: Brookhaven National Laboratory; Report No. 46444, 1992, 6.
- 7 The Associated Press, "264 Exposed to Atom Radiation after Nuclear Blast in the Pacific," *NYT*, 12 March 1954, 1, 3.
- 8 Barbara Rose Johnston and Holly M. Barker, "Hardships and Consequential Damages from Radioactive Contamination, Denied Use, Exile and Human Subject Experimentation Experienced by the People of Rongelap, Rongerik, and Ailinginae Atolls," 17 September 2001, prepared for the Public Advocate, Nuclear Claims Tribunal, P. O. Box 702, Majuro, Republic of the Marshall Islands 96960. Allen interview was conducted 22 August 1994 by Barker in Majuro.
- 9 Richard G. Hewlett and Jack M. Holl, *Atoms for Peace and War: 1953-1961 Eisenhower and the Atomic Energy Commission* (Berkeley: University of California Press, 1989), 175.
- 10 Robert A. Conard et al., "A Twenty-Year Review of Medical Findings in a Marshallese Population Accidentally Exposed to Radioactive Fallout," BNL 5042; Upton, N.Y.: Brookhaven National Laboratory, 1975, 72; Weisgall, *Operation Crossroads*, 4.
- 11 Lapp, *The Voyage of*, 185.

- 12 Stewart Firth, *Nuclear Playground: Fight for an Independent and Nuclear Free Pacific* (Honolulu: University of Hawaii Press, 1987), 20; Weisgall, *Operation Crossroads*, 302-307.
- 13 Lewis Mumford, "Policy on Bomb Examined," *NYT*, 28 March 1954, sec. 4, E10; *NYT* [editorial], "The Bomb," 28 March 1954, sec. 4, E10.
- 14 Lindesay Parrott, "Japan Postpones Atom Ship Claim," *NYT*, 19 March 1954, 4; Weisgall, *Operation Crossroads*, 305.
- 15 Lindesay Parrott, "Atom Smasher Sets Record; Japan Gets Radioactive Fish," *NYT*, 17 March 1954, 1, 10.
- 16 United Press, "Jaundice—Not Fall-Out," *NYT*, 23 August 1955, 7.
- 17 *NYT*, "Japanese Dusted by H-Bomb Is Dead," 24 September 1954, 10.
- 18 Lapp, *The Voyage of*, 197.
- 19 The Associated Press, "Red Influences Blamed," *NYT*, 24 September 1954, 10; The Associated Press, "Death from the H-Bomb," *NYT*, 26 September 1954, 2E.
- 20 Reuters, "More Boats Contaminated," *NYT*, 1 April 1954, 26; United Press, "4th Boat Quarantined," *NYT*, 4 April 1954, 6; see also The Associated Press, "Japanese Bid U.S. Curb Atom Tests," *NYT*, 1 April 1954, 26 and United Press, "Bomb Peril Zone Is Widened by U.S.," *NYT*, 21 March 1954, 42.
- 21 Quoted in Weisgall, *Operation Crossroads*, 305.
- 22 The Associated Press, "U.S. Radioactivity Up," 27 March 1954, 8; Reuters, "Fish Food Radioactive," *NYT*, 21 December 1954, 6.
- 23 Citing others, Weisgall, *Operation Crossroads*, 302.
- 24 *Ibid.*, 301.
- 25 Hewlett and Holl, *Atoms for Peace*, 172.
- 26 William L. Laurence, *The Hell Bomb* (New York: Alfred A. Knopf, 1951), 23; Warren Shields, "Shattuck Lecture: You, Your Patients and Radioactive Fallout," *New England Journal of Medicine*, 226, no. 22 (May 31, 1962), 1123-1125, esp. 1124.
- 27 See, for example, the testimony of Jonathan M. Weisgall, [legal counsel to the people of Bikini Atoll], 98th Cong., 2d sess., *Hearing Before the Subcommittee on Public Lands and National Parks of the Committee on Interior and Insular Affairs House of Representatives on Section 177 of the Proposed Compact of Free Association: Compensation for Victims of U.S. Nuclear Testing in the Marshall Islands*, 8 May 1984, 998-56, II, 23; Holly M. Barker, "Collisions of History and Language: Nuclear Weapons Testing, Human Environmental Rights Abuses, and Cover-up in the Republic of Marshall Islands" (Ph.D. diss., American University, 2000), 87.
- 28 Testimony of Jonathan Weisgall, 104th Cong., 2d sess., *Human Radiation Experiments: Hearing Before The Committee On Governmental Affairs United States Senate*, 12 March 1996 [S. Hrg. 104-588], 328-337, quote is at 333.
- 29 E. P. Cronkite, R. A. Conard and V. P. Bond, "Historical Events Associated with Fallout from Bravo Shot Operation Castle and 25 Y of Medical Findings," *Health Physics* 73, no. 1 (July 1997), 176-186, quote is at 176; see also testimony of Dr. Eugene P. Cronkite, 85th Cong., 1st sess., *The Nature of Radioactive Fall-Out and Its Effects on Man: Hearings Before the Special Subcommittee on Radiation of the Joint Committee on Atomic Energy, Congress of the United States*, Part 1, 3 June 1957, 941-955.
- 30 Weisgall, *Hearing before the Subcommittee on Public Lands*, 998-56, II, 23.
- 31 *Half Life: A Parable for the Nuclear Age*, 86-minute videocassette (Los Angeles: Direct Cinema, 1986).
- 32 Holly M. Barker, *Bravo for the Marshallese: Regaining Control in a Post-Nuclear, Post-Colonial World* (Belmont, Calif.: Wadsworth, 2004), 41-42.
- 33 Merrill Eisenbud, "Monitoring Distant Fallout: The Role of the Atomic Energy Commission Health and Safety Laboratory During the Pacific Tests, with Special Attention to the Events Following Bravo," *Health Physics* 73, no. 1 (July 1997), 21-27; quote is at 26-27.

- 34 Cronkite, Conard and Bond, "Historical Events," 177-184. Statistics in the literature vary on how many islanders were evacuated on which day. In a 2002 letter to this writer, NCT Public Advocate Bill Graham notes that 239 inhabitants of Rongelap and Utrik were evacuated: 64 people were on Rongelap Island on March 1, another 18 Rongelapese had gone to Ailinginae to gather food and all 82 were evacuated on March 3. On Utrik, 157 were present on the day of Bravo and all were evacuated on March 4. Barker, *Bravo for the Marshallese*, 30.
- 35 Barker, *Bravo for the Marshallese*, 50-59.
- 36 Johnston and Barker, "Hardships and Consequential Damages," 20.
- 37 From the English-language subtitles translating the words of an unnamed Rongelap woman speaking in *Half Life*.
- 38 Johnston and Barker, "Hardships and Consequential Damages," 22.
- 39 Cronkite, Conard and Bond, "Historical Events," 177-184.
- 40 The Associated Press, "2d Hydrogen Bomb Blast Proves Mightier Than Any Forecast," *NYT*, 18 March 1954, 1, 10.
- 41 The Associated Press, "Text of Statement and Comments by Strauss on Hydrogen Bomb Tests in the Pacific," *NYT*, 1 April 1954, 20.
- 42 Conard, "Fallout: The Experiences," 6.
- 43 *NYT*, [editorial], "The March First Bomb," 1 April 1954, 30.
- 44 Eugene P. Cronkite, Victor P. Bond, Robert A. Conard, N. Raphael Shulman, Richard S. Farr, Stanton H. Cohn, Charles L. Dunham, L. Eugene Browning, "Response of Human Beings Accidentally Exposed to Significant Fall-Out Radiation," *The Journal of the American Medical Association* 150, 1 October 1955, 430-434.
- 45 *Ibid.*
- 46 United Press International, "Ways to Resist Atom Rays Seen," *NYT*, 17 August 1958, 75.
- 47 Robert K. Plumb, "Fall-Out Effects Gone in 6 Months," *NYT*, 9 June 1955, 22.
- 48 *NYT*, "Fall-Out Victims in Sound Health," 21 July 1957, 22; Robert A. Conard et al., "Medical Survey of Marshallese Two Years After Exposure to Fall-Out Radiation," *The Journal of the American Medical Association*, vol. 164, no. 11 (July 13, 1957), 1192-1196, esp. 1193.
- 49 Cronkite, Conard and Bond, "Historical Events," 181.
- 50 Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: The Dial Press, 1999), 303.
- 51 Cronkite, Conard and Bond, "Historical Events," 184.
- 52 Barker, "Collisions of History and Language," 90-91.
- 53 A.M. Rosenthal, "Marshall Islanders Protest To U.N. on Nuclear Tests," *NYT*, 15 May 1954, 1, 10. Also on page 10, see *NYT*, "Texts of Bomb Protest and U.S. Reply."
- 54 A.M. Rosenthal, "Tests Protested by Marshallese," *NYT*, 15 May 1954, 5.
- 55 *NYT*, "H-Bomb Plea to be Aired," 2 June 1954, 24; The Associated Press, "Bomb Refugees Find New Home in Pacific," *NYT*, 24 June 1954, 13; *NYT*, "Reds Say U.S. Tests Violate Trust Pact," 7 July 1954, 4; *NYT*, "India Challenges U.S. on Atom Tests," July 10, 1954, 1, 5; Michael James, "Halt in U.S. Atom Tests Rejected; U.N. Unit Bars Soviet-Indian Bid," July 13, 1954, 1, 3; *NYT*, "U.S. Backed in U.N. on Pacific Tests," 16 July 1954, 5. See also *NYT*, "Eisenhower Releases Movie of Superbomb," 27 March 1954, 1, 8; *NYT*, "Islands and the Atom," 16 May 1954, sec. 4, E2.
- 56 Robert Trumbull, "Pacific Islanders Score Atom Tests," *NYT*, 20 April 1958, 25.
- 57 *NYT*, "Islanders in U.N. Plea," 27 April 1960, 6.
- 58 Patricia J. Lindop and J. Rotblat, "Consequences of Radioactive Fallout," *The Final Epidemic: Physicians and Scientists on Nuclear War*, eds. Ruth Adams and Susan Cullen (Chicago: Educational Foundation for Nuclear Science, 1981), 117; Neal O. Hines, *Proving Ground: An Account of the Radiobiological Studies in the Pacific 1946-61* (Seattle, Wash.: University of Washington Press, 1962), 239.

- 59 U.S. House Subcommittee on Energy Conservation and Power, *American Nuclear Guinea Pigs: Three Decades of Radiation Experiments on U.S. Citizens*, 99th Cong., 2nd sess., 1986, Committee Print 99-NN, 1.
- 60 Cronkite, Conard and Bond, "Historical Events," 177-184.
- 61 <http://www.rmiembassyus.org/nuclear/exhibit/effects.html>, as accessed June 19, 2002; William Burr, Thomas S. Blanton, and Stephen I. Schwartz, "The Costs and Consequences of Nuclear Secrecy," in, *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz (Washington, D. C.: Brookings Institution Press, 1998), 433-483.
- 62 Johnston and Barker, "Hardships and Consequential Damages," 22; Conard, "Fallout: The Experiences," 46.
- 63 Cronkite, Conard and Bond, "Historical Events," 181.
- 64 Johnston and Barker, "Hardships and Consequential Damages," 34.
- 65 *Ibid.*, 26.
- 66 *Ibid.*
- 67 President Kessai Note, "Petition Presented to the Congress of the United States of America Regarding Changed Circumstances Arising from U.S. Nuclear Testing in the Marshall Islands," 11 September 2000, Attachment VI, 17.
- 68 William M. Blair, "U.S. H-Bomb Test Put Lethal Zone At 7,000 Sq. Miles," *NYT*, 16 February 1955, 1, 18.
- 69 *NYT*, "Report Issued by the Atomic Energy Commission on Effects of H-Bomb Explosions," 16 February 1955, 18; United Press, "Report on H-bomb Hidden 3 Months," *NYT*, 25 March 1955, 11.
- 70 The Associated Press, "264 Exposed."
- 71 *NYT*, "Report Issued."
- 72 Conard et al., "A Twenty Year Review of Medical Findings," 1; Stephen Hilgartner, Richard Bell and Rory O'Connor, *Nukespeak: Nuclear Language, Visions, and Mindset*, (San Francisco: Sierra Club Books, 1982), 99; Weisgall, *Operation Crossroads*, 302-307.
- 73 Robert K. Plumb, "Fall-Out of Bomb A Defense Factor," *NYT*, 10 June 1955, 10. See also Anthony Leviero, "Big Bomb Blast Jolted Civil Defense Leaders; But Program Still Lags," *NYT*, 10 June 1955, 10; William M. Blair, "Geneticist Tells of Fall-Out Harm," *NYT*, 26 April 1955, 17; The Associated Press, "Scientist Disputes A.E.C.'s Blast Data," *NYT*, 30 May 1955, 1.
- 74 The Associated Press, "'Paralysis' Charged," *NYT*, 10 May 1955, 14; *NYT*, "Physicist Warns on 'Fall-Out' War," April 21, 1955, 7; *NYT*, "Secrecy Charged on Atomic Perils," 16 October 1955, 42.
- 75 The Associated Press, "Bomb Refugees Find New Home in Pacific," *NYT*, 24 June 1954, 13.
- 76 *NYT*, "Bomb Test in U.N.," 11 July 1954, sec. IV, 2.
- 77 *NYT*, "Nuclear Arsenal Growing 'Rapidly,' A.E.C. Says—Hydrogen Arms Pushed," 21 July 1954, 5.
- 78 United Press, "New Superbombs Indicated by A.E.C. As Result of Tests," the *NYT*, 30 January 1955, 26.
- 79 Plumb, "Fall-Out Effects Gone."
- 80 United Press, "Atomic Dust Ills Wane," *NYT*, 13 December 1955, 6.
- 81 *NYT*, "Atomic Fugitives Safe," 7 June 1955, 2.
- 82 *NYT*, "Bikini Natives Tested," 7 April 1957, 66.
- 83 The Associated Press, "Fallout Victims Called Fit," *NYT*, 9 April 1957, 67.
- 84 *NYT*, "Experts Divided on Fall-Out Issue," 4 June 1957, 16.
- 85 *NYT*, "Fall-Out Victims in Sound Health," 21 July 1957, 22; Robert A. Conard et al., "Medical Survey of Marshallese Two Years After Exposure to Fall-Out Radiation," *The Journal of the American Medical Association*, vol. 164, no. 11 (July 13, 1957), 1192-1196, esp. 1193.
- 86 United Press International, "Ways to Resist Atom Rays Seen," *NYT*, 17 August 1958, 75.
- 87 *NYT*, "Islanders Recover From Fall-Out But Suffer Emotional Distress," 22 May 1959, 6.

- 88 NYT, "American on Atoll To Rebut Atom Risk," 2 July 1959, 6.
- 89 The Associated Press, "Pacific Isles Aided by 2 New Statutes," NYT, 25 August 1964, 13. The article gave no source for the information on the deaths and causes of death; the AP story said the causes of death were "apparently" unrelated to radioactive fallout. For examples of how the poor medical condition of the Rongelap Islanders was glossed over and misrepresented by Atomic Energy Commission Chairman Lewis Strauss, see Arjun Makhijani and Stephen I. Schwartz, "Victims of the Bomb," 417 fn. 47.
- 90 Walter Sullivan, "Children's Thyroids Damaged by Hydrogen Bomb Fallout in Pacific in '54," NYT, 3 July 1968, 11; Walter Sullivan, "Marshall Islander's Death Tied to Fallout," NYT, 21 November 1972, A26; Walter Sullivan, "Radiation from H-Test In '54 Still Taking Toll," NYT, 3 June 1974, 19; United Press International, "Marshall Islanders' Surgery," NYT, 4 June 1974, 9; United Press International, "Nuclear Test Cited In Tumor Outbreak," NYT, 6 April 1975, 4.
- 91 Conard, "A Twenty Year Review of Medical Findings," 14, 39.
- 92 United Press, "Pre-Natal Injuries Noted in Bomb Area," NYT, 1 May 1954, 36.
- 93 James V. Neel, Gilbert W. Beebe and Robert W. Miller, "Delayed Biomedical Effects of the Bombs," *Bulletin of the Atomic Scientists* 41, no. 7, (August 1985), 72-75. For a description of Marshallese women's vivid, personal testimonies related to their pregnancies, their producing "grapes" or "coconut babies," or otherwise deformed offspring, see Barker, *Bravo to the Marshallese*, 53-55, 105-111.
- 94 Conard, "A Twenty Year Review of Medical Findings," 14, 39.
- 95 The Associated Press, "Illnesses at Birth Seen From Fall-out," NYT, 3 June 1957, 11.
- 96 Conard, "A Twenty Year Review of Medical Findings," 9, 73.
- 97 Robert D. Lange, William C. Moloney and Tokuso Yamasaki, "Leukemia in Atomic Bomb Survivors, I. General Observations," *Blood* 9 (1954), 574-85.
- 98 Stephen Kinzer, "Refusing to Learn to Love the Bomb: Nations Take Their Case to Court," NYT, 14 January 1996, sec. 4, E7.
- 99 Johnston and Barker, "Hardships and Consequential Damages," 22-23.
- 100 G. Casarett, R. G. Metcalf and G. A. Boyd, "Pathology Studies on Rats Injected with Polonium, Plutonium, and Radium," and H. E. Silbertstein, W. N. Valentine, W. L. Minto, J.S. Lawrence and R.M. Fink "Studies of Polonium Metabolism in Human Subjects," in *Biological Studies in Polonium, Radium, and Plutonium*, ed. Robert M. Fink (New York: McGraw-Hill Book Co., Inc., 1950), 343-389 and 122-148 respectively.
- 101 New York, Dial Press, 1999.
- 102 *The Times* carried 1820 articles about the University of Rochester from the beginning of 1946 through the end of 1962. The headlines of more than half of these (through June 9, 1955) were scanned, with some complete articles being printed, and these indicated no articles mentioning the University's involvement with human radiation experiments. A more selective search linking the University within the same document with "atom" from June 10, 1955 to the end of 1962 also found no articles hinting at human radiation experiments. A few articles extolled the value of atom-related research to discover cures for diseases as evidenced by the headline of "A Near Utopia Seen in Use of Isotopes," 14 November 1946, 31.

The closest article brushing the subject of human radiation experiments listed a University of Rochester professor among the 1,000 who signed a petition and sent it to each New York state legislator urging legalization of "voluntary euthanasia" for "incurable sufferers" so that it would be "brought out into the open and safeguarded against abuse rather than, as at present, practiced illegally, surreptitiously and without supervision or regulation." The petition urged prior approval by a written court of record, a signed and attested petition from the sufferer and an investigation by a medical committee; see NYT, "1,000 Doctors Urge 'Mercy Death' Law," 15 December 1947, 30. This article appeared five months after 15 Nazi doctors were found guilty of medical experimentation; see Kathleen McLaughlin, "Hitler's Doctor, 14 Others Guilty in Medical Experimentation Trial," NYT, 20 August 1947, 1, 2.

- 103 U.S. House Subcommittee on Energy Conservation and Power, *American Nuclear Guinea Pigs: Three Decades of Radiation Experiments on U.S. Citizens*, 99th Cong., 2nd sess., 1986, Committee Print 99-NN, 1, 3, 4, 21-22, 28.
- 104 For these references, see <http://tis.eh.doe.gov/ohre/roadmap/experiments>.
- 105 Howard A. Rusk, "Clues to Enigma of Cancer Hunted in Fish in Bahamas," *NYT*, 7 February 1954, 69. The assessment of Rusk's output is based on surveying listings under his name in *The Times* indexes from 1946-62; memorandum in *NYT* archives marked "Confidential" and dated 8 December 1954 from Rusk to Orvil Dryfoos, Sulzberger's son-in-law and assistant.
- 106 For these reports, see Robert A. Conard, "Review of Medical Findings in a Marshallese Population Twenty-Six Years after Accidental Exposure to Radioactive Fallout" (Upton, N.Y.: Brookhaven National Laboratory, 1989), 89.
- 107 *NYT*, "Frederika Inspects Brookhaven Plant," 28 October 1958, 13; *NYT*, "Ex-King of Belgium Sees U.S. Atom Unit," 17 September 1956, 29; Leonard Buder, "L.I. Youths Meet Atom First Hand," *NYT*, 12 February 1957, 29; *NYT*, "Reds Visit Brookhaven," 24 December 1957, 2. Brookhaven had been visited by 160 scientists and delegations from 50 foreign countries, according to Ira Henry Freeman, "Foreign Experts Visit Brookhaven," *NYT*, 21 October 1956, 56.
- 108 One of the earliest articles was written by U.S. Sen. Elbert D. Thomas from Utah, "Atomic Bombs in International Society," *American Society of International Law*, 39, no. 4 (October 1945), 736-44.
- 109 See, for example, "On Disclosure of Atomic Secrets in Litigation," *Tennessee Law Review*, 19, no. 4 (June 1946), 477-83.

## Chapter 10

- 1 Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), 4.
- 2 Keith Schneider, "Energy Official Seeks to Assist Victims of Tests," *NYT* [Nexis document], 20 December 1993, 1; Tom Wicker, "In the Nation: Serving His Country," *NYT* [Nexis document], 29 August 1983, sec. A, 19. Wicker wrote that the Pentagon estimated between 250,000 and 500,000 service and civilian personnel were exposed to atmospheric tests and that as of November 1982, the Veterans Administration had approved only 16 of 2,883 radiation-related claims made by veterans or their families.
- 3 Dana Thomas, "Birthday Suit," *NYT*, 30 June 1996, sec. 6, 39. See also Reuters, "Louis Reard, Engineer, Dies; Designed the Bikini in 1946," *NYT* [Nexis document], 17 September 1984, sec. B, 8.
- 4 S. L. Simon and W. L. Robison, "A Compilation of Nuclear Weapons Test Detonation Data for U.S. Pacific Ocean Tests," *Health Physics* 73, no. 1 (July 1997), 258-264. Much data have still not been released.
- 5 This calculation relies on the 1994 DOE figure that the Hiroshima bomb was actually 15 kiloton, rather than 20 KT, as had been reported for decades.
- 6 Warren Shields, "Shattuck Lecture: You, Your Patients and Radioactive Fallout," *The New England Journal of Medicine*, 226, no. 22 (May 31, 1962), 1123-1125, esp. 1124.
- 7 Arjun Makhijani and Stephen I. Schwartz, "Victims of the Bomb" in *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz (Washington, D.C.: Brookings Institution Press, 1998), 395.
- 8 Jill A. Edy, "Journalistic Uses of Collective Memory," *Journal of Communication* 49, no. 2 (spring 1999), 71-84, quotes are at 71-75.
- 9 Quoting Kundera, Noam Chomsky, *Class Warfare: Interviews with David Barsamian* (Monroe, Maine: Common Courage Press, 1996), 59.

- 10 The Nexis and *Times* archive searches picked up variations of the term *bikini*, whether in capitals or lower case or in plural form. *The Times* online archive gives no page number on which the article it locates was originally published.
- 11 June Weir, "Women of Fashion," *NYT* [Nexis document], 11 April 1982, sec. 6, 45.
- 12 Howard W. French, "Majuro Journal; A Pacific Puzzle: Connecting Dots Into a Nation," *NYT*, 30 June 2001, foreign desk; Phil Patton, "Forms That Trace a Previous Era's Angst," *NYT*, 11 October 2001, house and home/style desk.
- 13 Richard Bernstein, "Bikini Islanders Seek U.N. Help To Go Home," *NYT* [Nexis document], 17 May 1984, sec. A, 18; *NYT* [Nexis document], "U.S. Rejects Claim of Marshall Islanders," 19 May 1984, sec. 1, 5; John Noble Wilford, "Enewetak Islanders Seeking Continued Ties to U.S.," *NYT* [Nexis document], 24 May 1981, sec. 1, 8;
- 14 John Noble Wilford, "For Pacific's Atomic Nomads, A Symbolic Ground-Breaking," *NYT* [Nexis document], 10 April 1988, 1, accompanied by a map of the Marshall Islands and a photo including Bikinian leaders; John Noble Wilford, "Destiny of Bikini Is Again At the Mercy of Technology," *NYT* [Nexis document], 19 April 1988, sec. C, 1; with two photographs and a map.
- 15 *NYT* [Nexis document], "And the Colonies Dwindle," 4 July 1983, sec. 1, 18.
- 16 *NYT* [Nexis document], "Doing Right by the Micronesians," 25 July 1985, sec. A, 22. See also a letter to the editor from former assistant Interior secretary Pedro A. Sanjuan, "Bikinians Bare Tragedy of U.S. Nuclear Testing," *NYT*, 12 March 1997, sec. A, 22.
- 17 Robert C. Kiste, "United States," in *Tides of History: The Pacific Islands in the Twentieth Century*, ed. K.R. Howe, Robert C. Kiste, and Brij V. Lal (Honolulu: University of Hawaii, 1994), 234; see also Compact of Free Association Act of 1985, Public Law 99-239; 99 Stat. 1770, in effect in 1986.
- 18 See, for example, Stuart Taylor Jr., "Reagan Supports Cleanup of Atoll Contaminated by U.S. Atom Tests," *NYT* [Nexis document], 14 March 1985, sec. A, 12; it notes Bikinians seriously criticized the U.S. treatment of them.
- 19 Letter with enclosure from Tara O'Toole [assistant secretary for environment, safety and health, U.S. Department of Energy] to Senator Ted Stevens, March 26, 1996, printed in U.S. Senate Committee on Governmental Affairs, *Human Radiation Experiments: Hearing Before the Committee on Governmental Affairs, United States Senate, 104 Cong., 2d. sess.,* [S. Hrg. 104-588], 347-49. See also portions of her prepared statement about the DOE's Marshall Islands Medical Program, 312-15 as well as Makhijani and Schwartz, "Victims of the Bomb," 420.
- 20 John Noble Wilford, "Bikinians Suing U.S. for \$450 million over A-tests," *NYT* [Nexis document], 15 March 1981, sec. 1, 15; Robert Trumbull, "Islanders Uprooted by A-Tests Fight Aid Cut," *NYT* [Nexis document], 10 September 1981, sec. A, 17; John Noble Wilford, "Banished Bikinians Sue U.S. for Nuclear Cleanup," *NYT* [Nexis document], 2 May 1984, sec. A, 25; *NYT* [Nexis document], "Judge Refuses to Reject Suit Against U.S. by Bikini Island," 11 October 1984, sec. A, 21 and Robin Toner and Warren Weaver Jr., "Briefing—Deus ex Machina II," *NYT* [Nexis document], 2 July 1986, sec. A, 18; The Associated Press, "Judge Drops Suits of Marshall Isles," *NYT*, 30 August 1987, sec. 1, 27.
- 21 Robert Trumbull, "Pacific Atolls Show Feisty Independence," *NYT* [Nexis document], *NYT*, 24 October 1982, sec. 4, 2; with photo of an island.
- 22 Robert Trumbull, "Song of the South Pacific Islanders: Don't Dump It Here," *NYT* [Nexis document], 2 September 1984, sec. 4, 5. See also Jonathan Weisgall's op-ed piece warning the U.S. that time was running out in the Pacific, "U.S. Neglect in the Pacific," *NYT* [Nexis document], 7 December 1985, sec. 1, 27; John Noble Wilford, "Atom Waste: Worth Money to Bikinians?" *NYT* [Nexis document], 14 April 1988, sec. A, 21.
- 23 Samuel A. Tower, "Stamps: New Commemorative Pays Tribute to Research," *NYT*, [Nexis document], 13 May 1984, sec. 2, 41; John Dunn, "Stamps: From the Far East," *NYT* [Nexis docu-

- ment], 13 April 1986, sec. 2, 40; John Dunn, "Creativity in Design of New Issues," NYT [Nexis document], 31 August 1986, sec. 2, 25; Weisgall, *Operation Crossroads*, 3, 225.
- 24 See, for example, NYT [Nexis document], "For Eisenhower, 2 Goals If Bomb Was To Be Used," 8 June 1984, sec. A, 8; Jock Elliott, "The Pennsy and Me," NYT [Nexis document], 19 August 1990, sec. 6, 18.
- 25 For example, a proposal to turn Bikini Atoll into the first solar-powered community when Islanders could return home was examined in several articles, which also mentioned the Bikinians' suffering intermittent near-starvation; see Robert Trumbull, "Refugees May Get All Their Power From Sun," NYT [Nexis document], 26 October 1980, sec. 1, 24. See also Richard Haitch, "Follow-Up on the News: Pledge to Bikinians," NYT [Nexis document], 21 June 1981, sec. 1, 2; Walter Sullivan, "Response to Radioactive Iodine 131 Is Debated," NYT [Nexis document], 11 May 1986, sec. 1, 12; David Margolick, "The Marshall Islands Has Blue Lagoons, Pacific Breezes and an Opening on a Court," NYT [Nexis document], 3 April 1992, sec. A, 19; Gary Goshgarian, "Taking an Expedition Vacation," NYT [Nexis document], 20 April 1986, sec. 10, 21.
- 26 Jeffrey Davis, "Bikini's Silver Lining," NYT [Nexis document], 1 May 1994, sec. 6, 42.
- 27 For example, the style of The Associated Press, which is used by most newspapers, states: "Do not use racially derogatory terms unless they are part of a quotation that is essential to the story." See The Associated Press, *The Associated Press Stylebook and Libel Manual*, 32nd printing, (New York: The Associated Press, 1997), 173.
- 28 See, for example, Nicholas D. Kristof, "An Atomic Eden (but Don't Eat the Coconuts)," NYT [Nexis document], 5 March 1997, sec. A, 4; Nicholas D. Kristof, "Godzilla's Home Opens Its Arms To Scuba Divers," 22 June 1997, sec. 5, 22 and a followup letter to the editor by George Dunbar on 3 August 1997, sec. 5, 15.
- 29 NYT [Nexis document], "Required Reading Thanks to Japan," 20 May 1982, sec. A, 18.
- 30 Smitherman also criticized the government for failing to warn him and others of the hazards at Operation Crossroads. His anguish was bolstered by a scholarly report, which *The Times* published in 1983, bringing to light several 37-year-old secret memoranda written by U.S. military safety officers at Operation Crossroads. They stated that the radioactive fallout produced by the Able and Baker tests at Bikini Atoll in 1946 could have endangered U.S. servicemen; see The Associated Press, "Report Tells of '46 Warning on Atomic Tests," NYT [Nexis document], 25 May 1983, sec A, 16; Margot Slade and Wayne Biddle, "Ideas and Trends in Summary: How It Was at Bikini," NYT [Nexis document], 29 May 1983, sec 4, 8.
- 31 Studs Terkel, *The Good War: An Oral History of World War II* (New York: Ballantine Books, 1984), 547-555.
- 32 NYT [Nexis document], "Stafford L. Warren Dies; Nuclear Safety Pioneer," 29 July 1981, sec. A, 19.
- 33 See NYT, "U.S. Defense Moves on Atom Proposed," 30 June 1946, 3; similar comments by Warren were also published earlier in *The Times* in Harold B. Hinton, "Atom Bomb Force In Big City Argued," NYT, 16 February 1946, 15.
- 34 Laurence Marshall Carucci, "U.S must honor obligations to Enewetak people," *The Honolulu Advertiser*, 4 June 2000, B3.
- 35 Davor Z. Pevec, [attorney for the people of Enewetak], audiotaped and videotaped presentation titled "Enewetak and the H-Bomb after 50 Years: A Time for Just Compensation" at the University of Hawaii, March 6, 2001.
- 36 John Noble Wilford, "Earthbound; Our Future in Space Is Already History," NYT, 9 February 2003, "Week in Review" Section.
- 37 Robert Trumbull, "Pacific Islanders Sue the U.S. for \$500 Million," NYT [Nexis document], 17 October 1982, sec. 1, 7. NYT [Nexis document], "News Summary," 17 October 1982, sec. 1, 2.
- 38 United Press International, "Eniwetok Crop Is Radioactive," NYT [Nexis document], 20 April 2000, sec. 1, 8.



- 39 Bill Weinberg, letter to the editor, "Downwind from the Bomb," *NYT* [Nexis document], 9 March 1986, sec. 6, 118.
- 40 *NYT* [Nexis document], "New Life for Nuclear City," 18 January 1981, sec. 6, 28; Richard Rhodes, "H-Bombs Dreams," *NYT* [Nexis document], 11 February 1990, sec. 7, 3; Christopher Lehmann-Haupt, "The Race for an Even Bigger Bomb," *NYT* [Nexis document], 7 August 1995, sec. C, 14.
- 41 Clyde Haberman, "40 Years After Pacific D-Day, No Crowds and No Parades," *NYT* [Nexis document], 16 June 1984, sec. 1, 1; Robert Sherrod, "Saipan: The Tide Shifts," *NYT* [Nexis document], 16 June 1984, sec. 1, 23; John Pinkerman, letter to the editor, "Army Tank Vanguard in Saipan Battle," *NYT* [Nexis document], 3 July 1984, sec. A, 14. The fourth article mentioned Enewetak's importance to scientists debating global warming and the melting of Antarctica's ice; see Walter Sullivan, "New Theory on Ice Sheet Catastrophe Is the Direst One Yet," *NYT* [Nexis document], 2 May 1995, sec. C, 4.
- 42 Bruce Lambert, "John P.W. Vest," *NYT* [Nexis document], 9 January 1993, sec. 1, 11 and United Press International, "U.S. Ruled Not Liable in Military Cancer Case," *NYT* [Nexis document], 9 September 1982, sec. A, 16.
- 43 John Noble Wilford, "U.S. Resettles 75 on Pacific Atoll Evacuated for Bomb Tests in 40s," *NYT*, 11 April 1977, 1, 8.
- 44 Laurence Marshall Carucci and Mary H. Maifeld, *Ien Entaan im Jerata: Times of Suffering and Ill Fortune: An Overview of Daily Life on Ujelang and Enewetak since 1946* [A report submitted to the Marshall Islands Nuclear Claims Tribunal], March 1999, 59.
- 45 The Associated Press, "Marshall Islanders' suffering 'priceless,'" *The Honolulu Advertiser*, 9 May 2000, 1.
- 46 Merrill Eisenbud, *Environmental Radioactivity* (New York: McGraw-Hill Book Co., 1963), 344.
- 47 Merrill Eisenbud and Thomas Gesell, *Environmental Radioactivity: From Natural, Industrial and Military Sources*, 4th ed., (San Diego: Academic Press, 1997), 379-87.
- 48 Holly M. Barker, *Bravo for the Marshallese: Regaining Control in a Post-Nuclear, Post-Colonial World* (Belmont, Calif.: Wadsworth, 2004), 30.
- 49 R. K. Whyte, "First day neonatal mortality since 1935; re-examination of the Cross hypothesis," *British Medical Journal* 304 (8 February 1992), 343-46.
- 50 Citing DOE report, Makhijani and Schwartz, "Victims of the Bomb," 417-18.
- 51 The Associated Press, "70 Are Moved From Atoll Used in '54 Atomic Test," *NYT* [Nexis document], 21 May 1985, sec. A, 7; 245 others were later moved.
- 52 Glenn H. Alcalay [Letter to the Editor], "The Bomb That Shook The World's Conscience," *NYT*, 5 September 1985, sec. A, 26.
- 53 Bernstein, "Bikini Islanders Seek," sec. A, 18. Eleven months earlier, the United States agreed to pay \$183 million in quarterly payments, which include earnings from a \$150 million trust fund, to the Marshall Islands over 15 years to pay for claims arising from the U.S. Pacific nuclear weapons testing. The four "atomic atoll" islands to receive these funds were: Bikini (\$75 million), Enewetak (\$48.7 million), Rongelap (\$37.5 million) and Utrik (\$22.5 million); see United Press International, "U.S. to Give \$183.7 Million to Marshall Islands," *NYT* [Nexis document], 28 June 1983, sec. A, 6.
- 54 Richard L. Sine, "A Continuing Series on Maps and Navigation," *NYT* [Nexis document], 23 December 1984, sec. 2, 31.
- 55 Quoting the independent study, Makhijani and Schwartz, "Victims of the bomb," 418.
- 56 Walter Goodman, "Screen: 'Half Life,' A Documentary," *NYT* [Nexis document], 3 December 1986, sec. C, 21; for a vivid description of Marshallese women's testimonies on these experiences, see Barker, *Bravo for the Marshallese*, 105-114.
- 57 *Ibid.*, Goodman.
- 58 Sullivan, "Response to Radioactive Iodine 131."

- 59 Herbert Mitgang, "Rights and Wrongs in the Marshall Islands," *NYT* [Nexis document], 20 January 1990, sec. 1, 16.
- 60 Davis, "Bikini's Silver Lining," 42.
- 61 Matthew L. Wald, "Report Faults Energy Dept. On Managing Nuclear Site," *NYT* [Nexis document], 24 October 1997, sec. A, 27.
- 62 See also Solly Zuckerman, "Inventing Annihilation," *NYT* [Nexis document], 7 August 1983, sec. 7, 11.
- 63 Jane Dibblin, *Day of Two Suns: U.S. Nuclear Testing and the Pacific Islanders* (London: Virago Press, 1988), 20-64, quote is at 36; Mitgang, "Rights and Wrongs in the Marshall Islands."
- 64 Goodman, "Screen: 'Half Life,' A Documentary."
- 65 William J. Broad, "Scientists Fear Atomic Explosion of Buried Waste," *NYT* [Nexis document], 5 March 1995, 1.
- 66 From June 2, 2000 to January 15, 2004, *The Times* online archive located only one article out of 456 containing the terms of plutonium and "half life." However, that article does not include the concept of "half life" as used in this book. Instead it contains separate references to "half" ("half a mile") and "life" ("whether life ever existed"). See Stefano S.Coledan, "Wheeled Robots Are Ready to Explore Mars, Past and Present," *NYT*, 25 March 2003. This article was excluded from the total of 31 articles referenced in the text. This search tells us that, assuming *The Times* online retrieval system is accurate, the newspaper published no articles during the period of nearly four years of the new millennium that described for readers plutonium's 24,000-year half life.
- 67 Martin Forstenzer, "Concerns Arise Over Aquifer Near Nuclear Test Site," *NYT* [Nexis document], 21 March 2000, sec. F, 2.
- 68 Matthew L. Wald, "Finding a Burial Place for Nuclear Wastes Grows More Difficult," *NYT* [Nexis document], 5 December 1989, sec. C, 1.
- 69 See, for example, Broad, "Scientists Fear Atomic Explosion."
- 70 William J. Broad, "Nuclear Accords Bring New Fears on Arms Disposal," *NYT* [Nexis document], 6 July 1992, 1; see also Richard Severo, "New Substance Seen As Aid In Treating Plutonium Contamination Case," *NYT* [Nexis document], 13 September 1980, 7; Malcolm W. Browne, "Contaminant Called Extremely Rare," *NYT* [Nexis document], 27 July 1985, 27.
- 71 See, for example, Gerald Harrison [letter to the editor], "Where Has All The Plutonium Gone?," *NYT* [Nexis document], 26 October 1991, 18; *NYT* [Nexis document], "Topics of the Times: A Big Grant for Russian Science," 14 December 1992, 16; Hal Dresner [letter to editor], "Crazy Weather," *NYT* [Nexis document], 6 November 1997, 31.
- 72 William J. Broad, "Poison in the Earth: A Special Report; Nuclear Roulette for Russia: Burying Uncontained Waste," *NYT* [Nexis document], 21 November 1994, 1.
- 73 Dan Barry and Andrew C. Revkin, "At 50, Brookhaven Lab Is Beset by Problems," *NYT* [Nexis document], 22 March 1997, 1.
- 74 U.S. Department of Energy Office of Environmental Management, *Closing the Circle on the Splitting of the Atom: The Environmental Legacy of Nuclear Weapons Production in the United States and What the Department of Energy is Doing About It* (no place, no publisher, no date), 8, 9; Stephen I. Schwartz, "Introduction," in *Atomic Audit*, 3.
- 75 U.S. Department of Energy, *Closing the Circle*, 43.
- 76 A.O. Sulzberger, Jr., "U.S. Responsible in Atom Testing, House Unit Says," *NYT*, 7 August 1980, A14; U.S. House Committee on Interstate and Foreign Commerce and Its Subcommittee on Oversight and Investigations, "The Forgotten Guinea Pigs": A Report on Health Effects of Low-Level Radiation Sustained as a Result of the Nuclear Testing Program Conducted by the United States Government, 96th Cong., 2nd sess., 1980, Committee Print 96-IFC 53, 37, 26.
- 77 The Bikinians had first been moved by the Navy from their homelands in 1946 to Rongerik, 125 miles to the east, then in March 1948 to Kwajalein and then in September 1948 to Kili Island. Prepared statement of Jonathan Weisgall [legal counsel to the people of Bikini], 104th

- Cong., 2d sess., *Human Radiation Experiments: Hearing Before The Committee On Governmental Affairs United States Senate*, 12 March 1996 [S. Hrg. 104-588], 334.
- 78 Weisgall, *Human Radiation Experiments*, 334-336. Weisgall told Senators the Bikinians' fears about being human guinea pigs arose from a 12 September 1976 study by Lawrence Livermore National Laboratory stating: "Bikini Atoll may be the only global source of data on humans where intake via ingestion is thought to contribute the major fraction of plutonium body burden. ...It is possibly the best available source of data for evaluating the transfer of plutonium across the gut wall after being incorporated into biological systems."
- 79 Testimony of Jonathan Weisgall, 98th Cong., 2d sess., *Hearing before the Subcommittee on Public Lands and National Parks of the Committee on Interior and Insular Affairs House of Representatives on Section 177 of the Proposed Compact of Free Association: Compensation for Victims of U.S. Nuclear Testing in the Marshall Islands*, 8 May 1984, 998-56, II, 23.
- 80 Testimony of John Anjain, *Hearing before the Subcommittee*, 235, emphasis in the original.
- 81 Advisory Committee on Human Radiation Experiments, *Final Report* (Washington, D.C., U.S. Government Printing Office, October 1995), 597.
- 82 Testimony and prepared statement of Phillip Muller [RMI Foreign Minister], *Human Radiation Experiments: Hearing Before The Committee*, 10-11, 26, 157-163.
- 83 Muller, *Human Radiation Experiments*, 10-11, 26, 157-163, 190-193.
- 84 *Ibid.*, deBrum's quote at 21 and Byrd's at 23-24.
- 85 Letter with one-page attachment from Paul J. Seligman, deputy assistant secretary for health studies, U.S. Department of Energy, to Sheiko Eknilang, 28 June 1999.
- 86 Makhijani and Schwartz, "Victims of the Bomb," 421; 422-28.
- 87 No such article was found in the index to the *Times* for that period, in the Nexis keyword search or in scanning the single issues of the *Times* for the three days immediately following the date of the hearing.
- 88 Comments of Rep. George Miller, *Oversight Hearing before the Subcommittee on Oversight and Investigations of the Committee on Natural Resources on Radiation Exposure from Pacific Nuclear Tests*, 103 Cong., 2d sess., 24 February 1994, Serial No. 103-68, 1, 2.
- 89 *Ibid.*, testimony of Jonathan Weisgall, [legal counsel to the people of Bikini], 4-44. At issue in the hearing was the "Changed Circumstances" provision in the Compact of Free Association Act of 1986 between the United States and the Marshall Islands whereby injuries to persons or property discovered after that date could be covered in a new request to Congress. As Weisgall told the subcommittee, the problem was that the U.S. government had continued to keep documents from the testing program classified, "thus making it impossible to determine the extent of injuries and damages during the 1940s and 1950s" and thus withholding this material information from the Marshallese during Compact negotiations.
- 90 Testimony of Senator John S. Riegle, *Oversight Hearing*, 359.
- 91 Chairman deBrum told the Committee that the only information received from the U.S. government were the levels of radiation for the people of Rongelap and Utrik during the Bravo experiment—and that these were the only people to whom the United States admitted exposure; see deBrum's statement before the Committee on Resources reprinted in Republic of Marshall Islands Nuclear Claims Tribunal [NCT], *Annual Report to the Nitijela for the Calendar Year 1999* (no place), 18-28.
- 92 *Ibid.*, 9, 10. The Tribunal's standard meant that the U.S. nuclear testing was presumed to be the cause of the listed medical conditions for persons verified to have been on the atolls during the testing period. The Tribunal awards framework is largely patterned after U.S. programs that compensate certain categories of U.S. workers and veterans for specified medical conditions that the Tribunal and U.S. government accepts without proof were caused by their documented exposure to radiation.

For the first time, in August 1999, the Tribunal awarded full payment to the descendants of Dial Leviticus, who had been born at Bikini Atoll in 1971, thirteen years after the testing

- had ended. Medical records and opinions found that his illness and death were sufficiently related to his exposure at Bikini Atoll from his birth date until he was moved from there in 1978.
- 93 The source is the Republic of Marshall Islands NCT, *Annual Report to the Nitijela for the Calendar Year 1999*, 15 [Rev. 2/99] and in effect in 2003. This listing indicates the medical conditions that are irrebuttably presumed to be the result of the U.S. nuclear weapons tests and the amounts of compensation for each condition that will be paid to eligible claimants in pro rata payments. The NCT was established under agreement with the U.S. government "to render final determination upon all claims past, present and future, of the Government, citizens and nationals of the Marshall Islands which are based on, arise out of, or are in any way related to the Nuclear Testing Program" [Article IV of the 177 Agreement]. The Tribunal arbitrates these claims as an alternative to the numerous class-action lawsuits seeking millions of dollars in damages that were filed by Marshallese in federal courts.
- 94 See, for example, The Associated Press, "Marshall Islanders' suffering 'priceless,'" *The Honolulu Advertiser*, 9 May 2000, 1; NCT Fact Sheet as of December 31, 2003.
- 95 NCT, *Annual Report to the Nitijela for the Calendar Year 2002*, 1, 3, 6, 24 and its accompanying two-page insert beginning "Facts about the Tribunal's Personal Injury Compensation Awards;" NET's December 31, 2003 Fact Sheet.
- 96 Makhijani and Schwartz, "Victims of the Bomb," 394-431; the \$759 million excludes costs of surplus food shipments and some resettlement efforts.
- 97 Citing Simon et al., Eisenbud and Gesell, *Environmental Radioactivity*, 387.
- 98 Oscar DeBrum statement before House Committee on Resources reprinted in NCT's 1999 *Annual Report to the Nitijela*, 26.
- 99 Pevec, "Enewetak and the H-Bomb."
- 100 Kessai H. Note, President of the Republic of the Marshall Islands, "Petition Presented to the Congress of the United States of America Regarding Changed Circumstances Arising from U.S. Nuclear Testing in the Marshall Islands," 11 September 2000. In June 2003, the petition was posted at [www.rmiembassyus.org.nuclear/petition.html](http://www.rmiembassyus.org.nuclear/petition.html).

## Chapter 11

- 1 Quoted in *Last Aid: The Medical Dimensions of Nuclear War*, ed. Eric Chivian, Susanna Chivian, Robert Jay Lifton, John E. Mack (San Francisco: W.H. Freeman and Co., 1982), 30.
- 2 William L. Laurence, "Nagasaki Was the Climax of the New Mexico Test," *Life*, 24 September 1945, 30.
- 3 William L. Laurence, "U.S. bomb Site Belies Tokyo Tales," *NYT*, 12 September 1945, 1,4.
- 4 *Ibid.*; photograph is on page 5.
- 5 *Life*, "New Mexico's Atomic Bomb Crater," 24 September 1945, 27-31, quote at 27.
- 6 Quoting Faulkner, Paul Fussell, "The critic as human being," *Atlantic*, September 1983, 122.
- 7 Charles E. Morrison [president of U.S.-funded East-West Center], "Optimism in Asia can't hide dangers," *The Honolulu Advertiser*, 18 January 2004, B1.
- 8 Jeremy Rifkin, *Harnessing the Gene and Remaking the World: The Biotech Century* (New York: Jeremy P. Tarcher/Putnam, 1998), xiii, 48-66; quote at 49.
- 9 *The Times* is now publicly owned with Arthur Ochs Sulzberger Jr. serving as publisher and chairman of The New York Times Company; see Susan E. Tift and Alex S. Jones, *The Trust: The Private and Powerful Family Behind the New York Times*, (Boston: Little, Brown and Co., 1999), 740-780.
- 10 Jonathan M. Weisgall, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis, Md.: Naval Institute Press, 1994), 4; Beverly Ann Deepe Kever, "The Pacific Islanders" in *U.S. News Coverage of Racial Minorities: A Sourcebook, 1934-1996*, ed. Beverly Ann Deepe Kever, Carolyn Martindale, Mary Ann Weston (Westport, Conn.: Greenwood Press, 1997), 262.

- 11 Beverly Ann Deepe Keever, "The Racial Dimensions of the Nuclear Age: Insights Gleaned from Interdisciplinary Literature," presented to the National Association of African American Studies, National Association of Hispanic and Latino Studies, National Association of Native American Studies, International Association of Asian Studies; Houston, February 21, 2003.
- 12 Science Applications International Corporation, "Native American Interpretation of Cultural Resources in the Area of Yucca Mountain, Nevada, Interim Report," (no place) March 1989 [DOE/NV-10576-17]; Arjun Makhijani, Stephen I. Schwartz, and William J. Weida, "Nuclear Waste Management and Environmental Remediation" in *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*, ed. Stephen I. Schwartz (Washington, D.C.: Brookings Institution Press, 1998), 380.
- 13 Eugene P. Cronkite, Victor P. Bond, Robert A. Conard, Raphael Shulman, Richard S. Farr, Stanton H. Cohn, Charles L. Dunham, L. Eugene Browning, "Response of Human Beings Accidentally Exposed to Significant Fall-Out Radiation," *The Journal of the American Medical Association* 159, no. 5 (October 1955), 434.
- 14 Paula B. Johnson, David O. Sears and John B. McConahay, "Black Invisibility, the Press and the Los Angeles Riot," *American Journal of Sociology* 76, no. 4 (January 1971), 718; Beverly Ann Deepe Keever, "The Origins and Colors of a News Gap," in *U.S. News Coverage*, 1-21.
- 15 Christopher Campbell, *Nuclear Weapons Fact Book* (Feltham, England: Hamlyn Publishing, 1984), 184-85; U.S. General Accounting Office, "Kwajalein Atoll is the Key U.S. Defense Interest in Two Micronesian Nations," January 2002, GAO-02-119, 7, 33-41; testimonies of Peter T.R. Brookes [U.S. Defense Department deputy assistant secretary for Asian and Pacific Affairs] and Gerald M. Zackios [RMI Compact Negotiator], *Oversight Hearing: The Compacts of Free Association*, House Committee on Resources, 17 July 2002: <http://resources-committee.house.gov/107cong/fullcomm/2002/jul17/brookes.htm> or [/zackios.htm](http://resources-committee.house.gov/107cong/fullcomm/2002/jul17/zackios.htm) accessed May 23, 2003; Almira Ainri Matayoshi interview with the author in Marshallese, Honolulu, 17 July 2001, translator was Carmina Alik.
- 16 Makhijani and Schwartz, "Victims of the Bomb," in *Atomic Audit*, 395, 429.
- 17 Stephen I. Schwartz, "Introduction," in *Atomic Audit*, 3, 6.
- 18 William Burr, Thomas S. Blanton, Stephen I. Schwartz, "The Costs and Consequences of Nuclear Secrecy," in *Atomic Audit*, 434.
- 19 Neal A. Palafox, David B. Johnson, Alan R. Katz, Jill S. Minami and Kennar Briand, "Site Specific Cancer Incidence in the Republic of the Marshall Islands," *Cancer Supplement* 83, no. 8, (October 15, 1998), 1822.
- 20 Jack Niedenthal, *For the Good of Mankind: A History of the People of Bikini and Their Islands* (Majuro, Marshall Islands: Micronitor Publishing, 2001), 91-92.
- 21 As quoted and described by Jefferson Morley, [washingtonpost.com](http://www.washingtonpost.com/wp-dyn/articles/A55823-2003Mar19.html) staff, 20 March, 2003 at [www.washingtonpost.com/wp-dyn/articles/A55823-2003Mar19.html](http://www.washingtonpost.com/wp-dyn/articles/A55823-2003Mar19.html), retrieved March 25.
- 22 Part of banner headline, *NYT*, 8 August 1945, 1.
- 23 International Court of Justice, "Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons," *International Legal Materials* 35, no. 4 (July 1996), 17.
- 24 Audits in advertising, circulation and ethics have a strong tradition in modern journalism, but as far as is known, a news audit has not been devised. Ochs set high standards for the truthfulness of advertising accepted into his newspaper and established his own rules for achieving results. An independent firm, the Audit Bureau of Circulation, established a system of auditing newspaper circulation as a means of verification for advertisers. An ethical audit for newspapers was recently recommended; see Philip Meyer, *Ethical Journalism: A Guide for Students, Practitioners, and Consumers* (New York: Longman, 1987), 189-200. Meyer's discussion about measuring the accuracy of news products and disclosing conflicts of interest might also be included in a news audit.
- 25 See [www.nytc.com/press.html](http://www.nytc.com/press.html), "Ethical Journalism Guidebook," 7, 19-22, 28-30, accessed January 18, 2004.

- 26 These groups cross the political spectrum and levels of analysis. Some of the most conspicuous include Accuracy in Media ([www.aim.org](http://www.aim.org)), Project for Excellence in Journalism ([www.journalism.org](http://www.journalism.org)), commentary on media performance ([www.salon.com](http://www.salon.com)), Center for Media and Public Affairs ([www.cmpa.com](http://www.cmpa.com)), the magazine *Columbia Journalism Review* ([www.cjr.org](http://www.cjr.org)) and the nonprofit school, Poynter Institute ([www.poynter.org](http://www.poynter.org)). Many have links and lists of useful resources. The book *International Media Monitoring* by leading Finnish scholar Kaarle Nordenstreng and Michael S. Griffin (Hampton Press, 1999), available from [amazon.com](http://amazon.com), is useful for examining coverage of global issues.
- 27 See Eric Boehlert's critique at <http://dir.salon.com/news/feature/2000/09/27/lee/index.html>.
- 28 Jacques Steinberg, "The Times Chooses Veteran of Magazines and Publishing as Its First Public Editor," *NYT*, 27 October 2003, 19; Daniel Okrent, "The Public Editor: An Advocate for Times Readers Introduces Himself," *NYT*, 7 December, 2003, Week in Review Desk.
- 29 See executives under "our company" at [www.nytc.com](http://www.nytc.com) and under press see the "Report of the Committee on Safeguarding the Integrity of Our Journalism" (the Siegal Committee), accessed 18 January 2003, page 18.
- 30 "Report of the Committee on Safeguard," no page.
- 31 Okrent, "The Public Editor."
- 32 Sharon M. Friedman, Carole M. Gorney and Brenda P. Egolf, "Reporting on Radiation: A Content Analysis of Chernobyl Coverage," *Journal of Communication* 37, no. 3 (summer 1987), 58-79; quote at 63.
- 33 David M. Rubin, "How the News Media Reported on Three Mile Island and Chernobyl," *Journal of Communication* 73, no. 3 (summer 1987), 42-57, quote at 44.
- 34 See, for example, David O. Stewart, "A New Test," in *ABA Journal*, November 1993, 48.
- 35 Catherine Caufield, *Multiple Exposures: Chronicles of the Radiation Age* (New York: Harper and Row, 1989), 246-47, 249.
- 36 Jill A. Edy, "Journalistic Uses of Collective Memory," *Journal of Communication* 49, no. 2 (spring 1999), 74.
- 37 See, for example, the 29-paragraph article by William L. Laurence, "First Atomic Fire Ignited Decade Ago," *NYT*, 1 December 1952, 12. A *Times* editorial also dramatized the tenth anniversary but devoted two of its three paragraphs to the positive medical uses of radioactive elements without mentioning the dangers of radioactivity resulting from nuclear weapons tests; see *NYT* [editorial], "Atomic Decennial," 2 December 1952, 30.
- 38 Click *Extra!* in the left-hand panel at [www.fair.org](http://www.fair.org) for Allimadi's "Inventing Africa" article of 10 September 2003, accessed 19 January 2004; Deborah E. Lipstadt, *Beyond Belief: The American Press and the Coming of the Holocaust 1933-1945* (New York: The Free Press, 1986), 170, 171; Karl Grossman, "Holocaust: Back-Page News," *EXTRA!*, summer 1989, 31. See also Karl Grossman, "Why the *Times* failed to cover the Holocaust," *Long Island Jewish World*, 14-20 February 1992, 4, 12. I'm indebted to Professor Grossman for providing this inspiration and information to develop on short notice this double-holocaust theme.

## Appendix

- 1 USDOE Nevada Operations Office, Las Vegas, Nev., Office of External Affairs, December 1994, (Revision 14). Revision 15 pertained only to Nevada tests.
- 2 Tod Ensign and Glenn Alcalay, "Duck and Cover(up): U.S. Radiation Testing on Humans," *Covert Action* 49 (Summer 1994), 29.
- 3 David M. Rubin and Constance Cummings, "Nuclear War and Its Consequences on Television News," *Journal of Communication* 39, no. 1 (Winter 1989), 39-58, esp. 40.
- 4 June Adamson, "From Bulletin to Broadside: A History of By-Authority Journalism in Oak Ridge, Tennessee," *Tennessee Historical Quarterly* 38 (1979), 479-93; Mayumi Yamaguchi and John Lent, "40 Years Ago: How Big Papers Covered Bombs That Ended War," *Media History*

- Digest* 5, no. 3 (1985), 2-5, 30-31, 38-40; Kathy J. Corbalis, "'Atomic Bill' Laurence: He Reported the Birth of the A-Bomb." *Media History Digest* 5, 3 (1985), 9-11, 28-30.
- 5 Wm. [sic] David Sloan, *American Journalism History: An Annotated Bibliography* (Westport, Conn.: Greenwood Press, 1989).
  - 6 Janet Besse and Harold D. Lasswell, "Our Columnists on the A-Bomb," *World Politics* 3 (October 1950), 72-87, esp. 73.
  - 7 Eugene J. Rosi, "Elite Political Communication: Five Washington Columnists on Nuclear Weapons Testing, 1954-1958," *Social Research* 34 (1967), 703-727. See also Spencer Weart, *Nuclear Fear: A History of Images* (Cambridge, Mass.: Harvard University Press, 1988), 116, 186, 40, 476.
  - 8 Eugene Rosi, "How 50 Periodicals and the *Times* Interpreted the Test Ban Controversy," *Journalism Quarterly* 41 (1964), 545-56.
  - 9 Frederick O'Hara Jr., "Attitudes of American Magazines Toward Atmospheric Nuclear Testing, 1945-1965." Ph.D. diss., University of Illinois at Urbana-Champaign, 1974.
  - 10 Neal O. Hines, "Atomic Energy and the Press: Two Years After Hiroshima," *Journalism Quarterly* 24, no. 4 (December 1947), 315-322; quote is at 315.
  - 11 Elmer Davis, *History of The New York Times*, (New York: The New York Times, 1921).
  - 12 Meyer Berger, *The Story of The New York Times, 1851-1951* (New York: Simon and Schuster, 1951).
  - 13 Richard F. Shepard, *The Paper's Papers: A Reporter's Journey Through the Archives of The New York Times* (n.p.: Times Books, Random House, 1996).
  - 14 Harrison Salisbury, *Without Fear or Favor: The New York Times and Its Times* (New York: Times Books), 1980; Susan E. Tifft and Alex S. Jones, *The Trust: The Private and Powerful Family Behind The New York Times* (Boston: Little, Brown, 1999); *The Newspaper and Its Making*, members of the staff of The New York Times (New York: Charles Scribner's Sons, 1945).
  - 15 Hanson Baldwin, *Reminiscences*, oral history with transcript in two volumes conducted by John T. Mason Jr. for Oral History Program of the U.S. Naval Institute, 1975; William L. Laurence, *Reminiscences of William L. Laurence*, oral history transcript in two parts tape-recorded in an unspecified number of interviews conducted by Louis M. Starr for the Oral History Research Office, Columbia University, from March 1956 to January 1957 in New York City and by Scott Bruns in 1964. Greatly appreciated is the assistance of Mary Marshall Clark in locating and granting permission to cite Laurence's oral history transcripts.
  - 16 See, for example, Richard W. Budd, Robert K. Thorp, Lewis Donohew, *Content Analysis of Communication* (New York: Macmillan, 1967).

# SELECTED BIBLIOGRAPHY

- Adams, Ruth and Susan Cullen, eds. *The Final Epidemic: Physicians and Scientists on Nuclear War*. Chicago: Educational Foundation for Nuclear Science, 1981.
- Advisory Committee on Human Radiation Experiments. *Final Report*. Washington, D.C.: U.S. Government Printing Office, 1995.
- Allimadi, Milton. "Inventing Africa." [www.fair.org](http://www.fair.org), click *Extra!*, 20 September 2003, accessed 19 January 2004.
- Atomic Energy Act of 1946. Public Law 79-585, 60 Stat. 755, 79th Cong., 2nd sess., 1 August 1946.
- Baldwin, Hanson W. "New Atomic Capital." *New York Times Magazine*, 30 July 1950, 17, 19.
- \_\_\_\_\_. *Reminiscences*. Annapolis, Md.: Oral History Program of the U.S. Naval Institute, 1975. Oral history with transcript in two volumes. Interviewer John T. Mason, Jr.
- Barker, Holly M. "Collisions of History and Language: Nuclear Weapons Testing, Human Environmental Rights Abuses, and Cover-up in the Republic of Marshall Islands." Ph.D. diss., American University, 2000.
- \_\_\_\_\_. *Bravo for the Marshallese: Regaining Control in a Post-Nuclear, Post-Colonial World*. Belmont, Calif.: Wadsworth, 2004.
- Behling, Hans, John Mauro, Kathleen Behling. "Reassessment of Acute Radiation Doses Associated with Bravo Fallout at Utrik Atoll." May 2002. Prepared for the Utrik Local Government Council, P.O. Box 741, Majuro, MH 96960.
- Bedjaoui, Mohammed. "Declaration of President Bedjaoui." *International Legal Materials* 35, no. 6 (November 1996), 1345-47.
- Borland, Hal. "The Kaiser, Japan and Hitler." *New York Times*, 16 July 1939, sec. 7, 1-2, 14-15.
- Boyer, Paul. *By the Bombs Early Light: American Thought and Culture at the Dawn of the Atomic Age*. New York: Pantheon, 1985.
- Braw, Monica. *The Atomic Bomb Suppressed: American Censorship in Occupied Japan*. Armonk, N.Y.: M.E. Sharpe, Inc., 1991.
- Burchett, Wilfred. *Shadows of Hiroshima*. London: Verso, 1983.
- Caldicott, Helen. "Nuclear Shadow: The Weapons, The Power, The Waste." *Nation* 262, no. 17 (29 April 1996), 14.
- Carucci, Laurence Marshall. "U.S must honor obligations to Enewetak people." *Honolulu Advertiser*, 4 June 2000, B3.
- Carucci, Laurence M. and Mary H. Maifeld. *Ien Entaan im Jerata: Times of*



- Suffering and Ill Fortune: An Overview of Daily Life on Ujelang and Enewetak since 1946.* Submitted to the Marshall Islands Nuclear Claims Tribunal in behalf of the People of Enewetak, March 1999.
- Chomsky, Noam. *Class Warfare: Interviews with David Barsamian.* Monroe, Maine: Common Courage Press, 1996.
- Clark, Claudia. *Radium Girls: Women and Industrial Health Reform, 1910-1935.* Chapel Hill, N.C.: the University of North Carolina Press, 1997.
- Cochran, Thomas B., William M. Arkin, Robert S. Norris, and Milton M. Hoenig, eds. *Nuclear Weapons Databook, Volume 2, U.S. Nuclear Warhead Production.* Cambridge, Mass.: Ballinger Publishing, 1987.
- Compact of Free Association Act of 1985.* Public Law 99-239, 99 Stat. 1770. 99th Cong., 1st sess., 14 January 1986.
- Conard, Robert A. "Medical Survey of Marshallese Two Years After Exposure to Fall-Out Radiation." *The Journal of the American Medical Association* 164, no. 13 (July 1957), 1192-96.
- . "A Twenty-Year Review of Medical Findings in a Marshallese Population Accidentally Exposed to Radioactive Fallout." BNL 50424. Upton, N.Y.: Brookhaven National Laboratory, 1975.
- . "Review of Medical Findings in a Marshallese Population Twenty-Six Years after Accidental Exposure to Radioactive Fallout." Upton, N.Y.: Brookhaven National Laboratory, January 1989.
- . "Fallout: The Experiences of a Medical Team in the Care of a Marshallese Population Accidentally Exposed to Fallout Radiation." Report 46444. Upton, N.Y.: Brookhaven National Laboratory, 1992.
- Cronkite, Eugene P., Victor P. Bond, Robert A. Conard, N. Raphael Shulman, Richard S. Farr, Stanton H. Cohn, Charles L. Dunham, L. Eugene Browning. "Response of Human Beings Accidentally Exposed to Significant Fall-Out Radiation." *The Journal of the American Medical Association* 150, 1 October 1955, 430-434.
- Cronkite, E.P., R.A. Conard and V.P. Bond, "Historical Events Associated with Fallout from Bravo Shot—Operation Castle and 25 Y of Medical Findings." *Health Physics* 73, no. 1 (July 1997), 176-186.
- Davies, Lawrence E. "Trust Isles Grow As Security Chain." *New York Times*, 17 August 1952, 59.
- . "Trust Isles Beset By Trade Problem." *New York Times*, 18 August 1952, 3.
- . "Trust Isles Aided By U.S. Monopoly." *New York Times*, 19 August 1952, 4.
- Davis, Jeffrey. "Bikini's Silver Lining." *New York Times* [Nexis Document], 1 May 1994, sec. 6, 42.
- Dean, Gordon E. *Forging the Atomic Shield: Excerpts from the Office Diary of*

- Gordon E. Dean. Edited by Roger M. Anders. Chapel Hill, N.C.: University of North Carolina Press, 1987.
- deBum, Oscar. Interviewed and tape recorded in Honolulu, 19 June 1999.
- . Testimony before U.S. House Committee on Resources. *The Status of Nuclear Claims, Relocation and Resettlement Efforts in the Marshall Islands*, 106th Cong., 1st sess., 11 May 1999. Accessed at [http://www.access.gpo.gov/resources/hii57451.000/hii57451\\_Of.htm](http://www.access.gpo.gov/resources/hii57451.000/hii57451_Of.htm) on 3 January, 2000.
- Dibblin, Jane. *Day of Two Suns: U.S. Nuclear Testing and the Pacific Islanders*. London: Virago Press, 1988.
- Dunlap, Lillian. "Comments at workshop on stereotyping." Presentation at the National Convention of the Association of Education in Journalism and Mass Communication, Chicago, August 1996.
- Edy, Jill A. "Journalistic Uses of Collective Memory." *Journal of Communication* 49, no. 2 (1999), 71-84.
- Eisenbud, Merrill. *Environmental Radioactivity*. New York: McGraw-Hill Book Co., 1963.
- . *An Environmental Odyssey: People, Pollution, and Politics in the Life of a Practical Scientist*. Seattle: University of Washington Press, 1990.
- . "Monitoring Distant Fallout: The Role of the Atomic Energy Commission Health and Safety Laboratory During the Pacific Tests, with Special Attention to the Events Following Bravo." *Health Physics* 73, no. 1 (July 1997), 21-27.
- Eisenbud, Merrill and Thomas Gesell. *Environmental Radioactivity: From Natural, Industrial and Military Sources*. San Diego: Academic Press, 1997.
- Ensign, Tod and Glenn Alcalay. "Duck and Cover(up): U.S. Radiation Testing on Humans." *Covert Action* 49 (Summer 1994), 28-35, 65.
- Fink, Robert M, ed. *Biological Studies in Polonium, Radium, and Plutonium*. New York: McGraw-Hill Book Co., Inc. 1950.
- Firth, Stewart. *Nuclear Playground: Fight For An Independent and Nuclear Free Pacific*. Honolulu: University of Hawaii Press Pacific Islands Studies Program, 1987.
- Foner, Eric, ed. *The New American History*. Philadelphia: Temple University Press, 1990.
- Gitlin, Todd. *The Whole World Is Watching: Mass Media in the Making and Unmaking of the New Left*. Berkeley: University of California Press, 1980.
- Glasstone, Samuel, ed. U.S. Department of Defense and U.S. Atomic Energy Commission. *The Effects of Atomic Weapons*. Rev. September 1950. Washington, D.C.: U.S. Government Printing Office, 1950.
- . *The Effects of Nuclear Weapons*. Washington, D.C.: U.S. Government

- Printing Office, 1957.
- Gofman, John W. *Radiation and Human Health*. San Francisco: Sierra Club Books, 1981.
- Goodman, Walter. "Screen: 'Half Life,' A Documentary." *New York Times* [Nexis Document], 3 December 1986, sec. C, 21.
- Groves, Leslie R. *Now It Can Be Told: The Story of the Manhattan Project*. New York: Harper & Brothers, 1962.
- Hacker, Barton C. *The Dragon's Tail: Radiation Safety in the Manhattan Project, 1942-1946*. Berkeley: University of California Press, 1987.
- Half Life: A Parable for the Nuclear Age*. Los Angeles: Direct Cinema, 1986. 86-minute videocassette.
- Herman, Edward S. and Noam Chomsky. *Manufacturing Consent: The Political Economy of the Mass Media*. New York: Pantheon Books, 1988.
- Hersey, John. "Hiroshima." *The New Yorker*, 31 August 1946.
- Hewlett, Richard G., and Oscar E. Anderson. *A History of the Atomic Energy Commission, The New World, 1939/1946*. Vol. 1. University Park, Penn.: The Pennsylvania State University Press, 1962.
- Hewlett, Richard G. and Francis Duncan. *Atomic Shield: A History of the Atomic Energy Commission*. Vol. 2. Washington, D.C.: Atomic Energy Commission, 1972.
- Hewlett, Richard G. and Jack M. Holl. *Atoms for Peace and War: 1953-1961 Eisenhower and the Atomic Energy Commission*. Berkeley: University of California Press, 1989.
- Hilgartner, Stephen, Richard C. Bell and Rory O'Connor. *Nukespeak: Nuclear Language, Visions, and Mindset*. San Francisco: Sierra Club Books, 1982.
- Hill, Gladwin. "Tactical Bomb Test 'Secrets' Open To Thousands but Not to News Men." *New York Times*, 18 October 1951, 18.
- Hines, Neal O. "Atomic Energy and the Press: Two Years After Hiroshima." *Journalism Quarterly* 24, no. 4 (1947), 315-22.
- . "Bikini Report." *The Scientific Monthly* 72, no. 2 (February 1951), 102-13.
- . *Proving Ground: An Account of the Radiobiological Studies in the Pacific 1946-61*. Seattle: University of Washington Press, 1962.
- Howe, K.R., Robert C. Kiste and Brij V. Lal, eds. *Tides of History: The Pacific Islands in the Twentieth Century*. Honolulu: University of Hawaii Press, 1994.
- Hulen, Bertram D. "U.S. Proposes that it Rules Pacific Isles." *New York Times*, 7 November 1946, 1, 25.
- International Court of Justice. "Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons." *International Legal Materials* 35,

- no. 4 (1996), 809-938.
- International Physicians for the Prevention of Nuclear Wars, International Commission to Investigate the Health and Environmental Effects of Nuclear Weapons Production, and Institute for Energy and Environmental Research. *Radioactive Heaven and Earth: The Health and Environmental Effects of Nuclear Weapons Testing In, On, and Above the Earth*. New York: Apex Press, 1991.
- Johnston, Barbara Rose and Holly M. Barker. "Hardships and Consequential Damages from Radioactive Contamination, Denied Use, Exile and Human Subject Experimentation Experienced by the People of Rongelap, Rongerik, and Ailinginae Atolls," 17 September 2001. Prepared for the Public Advocate, Nuclear Claims Tribunal, P.O. Box 702, Majuro, RMI 96960.
- Keever, Bev. "Fallout: Enewetak Atoll, 50 years ago this week." *Honolulu Weekly*, 30 October-5 November 2002, 6-8.
- Keever, Beverly Ann Deepe, Carolyn Martindale, Mary Ann Weston, eds. *U.S. News Coverage of Racial Minorities: A Sourcebook, 1934-1996*. Westport, Conn.: Greenwood Press, 1997.
- Keever, Beverly Ann Deepe. "The Racial Dimensions of the Nuclear Age: Insights Gleaned from Interdisciplinary Literature." Presentation at the national conference of the National Association of African American Studies, National Association of Hispanic and Latino Studies, National Association of Native American Studies, International Association of Asian Studies. Houston, February 21, 2003.
- Kiste, Robert C. *The Bikinians: A Study in Forced Migration*. Menlo Park, Calif.: Cummings Publishing, 1974.
- . *Kili Island*. Eugene: University of Oregon Department of Anthropology, 1968.
- Kiste, Robert C. and Mac Marshall, eds. *American Anthropology in Micronesia: An Assessment*. Honolulu: University of Hawaii Press, 1999.
- Lakoff, George and Mark Johnson. *Metaphors We Live By*. Chicago: The University of Chicago Press, 1980.
- Lamont, Lansing. *Day of Trinity*. New York: Atheneum, 1965.
- Lange, Robert D., William C. Moloney, and Tokuso Yamawaki. "Leukemia in Atomic Bomb Survivors, I. General Observations." *Blood* (1954), 574-85.
- Lapp, Ralph E. *The Voyage of the Lucky Dragon*. New York: Harper & Brothers, 1957.
- Larson, Erik Sean. "Comparison of *The New York Times's*, *The Times of London's*, *Science's*, and *Nature's* coverage of the birth of atomic the-

- ory: 1896-1922." Master's thesis, Michigan State University, 1992.
- Laurence, William L. "Airborne H-Bomb Exploded By U.S. Over Pacific Isle." *New York Times*, 21 May 1956, 1, 16.
- . "Atom Test Series Starts in Pacific." *New York Times*, 5 May 1956, 1, 10.
- . "Atomic Bombing Of Nagasaki Told By Flight Member." *New York Times*, 9 September 1945, 1, 35.
- . "Atomic Factories Incredible Sight." *New York Times*, 29 September 1945, 6.
- . "Bikini 'Dud' Decried For Lifting Fears." *New York Times*, 4 August 1946, 3.
- . *Dawn Over Zero: The Story of the Atomic Bomb*. 2nd enlarged ed. Westport, Conn.: Greenwood Press, 1946.
- . "Drama of the Atomic Bomb Found Climax in July 16 Test." *New York Times*, 26 September 1945, 1.
- . "Element 94 Key To Atomic Puzzle." *New York Times*, 5 October 1945, 4.
- . "Fiery 'Super Volcano' Awes Observer of 3 Atom Tests." *New York Times*, 1 July 1946, 1, 5.
- . "First Atomic Fire Ignited Decade Ago." *New York Times*, 1 December 1952, 12.
- . "Gases Explain Size of Atomic Plants." *New York Times*, 3 October 1945, 10.
- . "H-Bomb Improved by Fall-Out Curb." *New York Times*, 29 July 1956, 19.
- . *The Hell Bomb*. New York: Alfred A. Knopf, 1951.
- . Letter to A.H. Sulzberger, 15 February 1967, in *New York Times Archives*, "AHS folder with heading LAURENCE, WILLIAM L. 1943-1967."
- . "Lightening Blew Up Dummy Atom Bomb." *New York Times*, 27 September 1945, 7.
- . *Men and Atoms: The Discovery, the Use and the Future of Atomic Energy*. Expanded from the first ed. New York: Simon and Schuster, 1959.
- . "Plutonium Lifted By New Chemistry." *New York Times*, 8 October 1945, 6.
- . *Reminiscences of William L. Laurence, Part I*. New York: Oral History Research Office, Columbia University, 1956-1957. Oral history with transcripts: Interviewer Louis M. Starr. Part II, 1964: Interviewer Scott Bruns.
- . "Scientists 'Create' in Atomic Project." *New York Times*, 4 October 1945, 4.

- . “Small U.S. H-Bomb Believed Tested.” *New York Times*, 15 May 1956, 1, 18.
- . “‘Tree’ Spectacle Forecast.” *New York Times*, 24 July 1946, 1, 12.
- . “U.S. Atom Bomb Site Belies Tokyo Tales.” *New York Times*, 12 September 1945, 1, 4.
- . “Vast Power Source in Atomic Energy Opened by Science.” *New York Times*, 5 May 1940, 1, 51.
- Lawrence, W.H. “2d Big Aerial Blow.” *New York Times*, 9 August 1945, 1, 6.
- . “Atomic Bomb Wiped Out 60% of Hiroshima.” *New York Times*, 8 August 1945, 1.
- . “Nagasaki Flames Rage For Hours.” *New York Times*, 10 August 1945, 1.
- . “No Radioactivity In Hiroshima Ruin.” *New York Times*, 13 September 1945, 4.
- . “President Accuses Press Of Revealing Vital War Secrets.” *New York Times*, 5 October 1951, 1, 12.
- . “Visit to Hiroshima Proves It World’s Most-Damaged City.” *New York Times*, 5 September 1945, 1.
- Lewis, Richard S. Jane Wilson, eds., with Eugene Rabinowitch. *Alamagordo Plus Twenty-Five Years: An Inside Look at the Impact of Atomic Energy on Science, Technology, and World Politics*. New York: The Viking Press, 1971.
- Lieber, Michael, ed. *Exiles and Migrants in Oceania*. Honolulu: University Press of Hawaii, 1977.
- Life*. “New Mexico’s Atomic Bomb Crater,” 24 September 1945, 27-31.
- Makhijani, Arjun, Howard Hu and Katherine Yih, eds. *Nuclear Wastelands: A Global Guide to Nuclear Weapons Production and Its Health and Environmental Effects*. Cambridge, Mass.: The MIT Press, 1995.
- Mason, Leonard. “The Bikinians: A Transplanted Population.” *Human Organization*, no. 1 (Spring 1950), 5-15.
- . “Micronesia: Marshall, Gilberts, Ocean Island, and Nauru.” In *Geography of the Pacific*, edited by Otis W. Freeman. New York: John Wiley & Sons, 1951, 270-97.
- . “Relocation of the Bikini Marshallese: A Study in Group Migrations.” Ph.D. diss., Yale University, 1954.
- Matayoshi, Almira Ainri audiotape interview with author in Marshallese, Honolulu, 17 July 2001, translator was Carmina Alik.
- McCombs, Maxwell E. “Agenda Setting.” *International Encyclopedia of Communications* vol. 1. New York: Oxford University Press, 1989, 42-43.

- McGaffin, William and Erwin Knoll. *Anything But the Truth: The Credibility Gap—How The News Is Managed In Washington*. New York: G.P. Putnam's Sons, 1968.
- McNeill, John. "The Strategic Trust Territory in International Law." Ph.D. diss., University of London, 1976.
- Members of the staff of *The New York Times*. *The Newspaper and Its Making*. New York: Charles Scribner's Sons, 1945.
- Meyer, Philip. *Ethical Journalism: A Guide for Students, Practitioners, and Consumers*. New York: Longman, 1987.
- Moloney, W.E. "Leukemia and Survivors of Atomic Bombing." *The New England Journal of Medicine* 253 (1955), 88-90.
- Moynihan, Daniel Patrick, introduction by Richard Gid Powers. *Secrecy*. New Haven: Yale University Press, 1998.
- Neel, James V., Gilbert W. Beebe and Robert W. Miller. "Delayed Biomedical Effects of the Bombs," *Bulletin of the Atomic Scientists* 41, no. 7, (August 1985), 72-75.
- New York American*. "Facsimile of World Kaiser Story as Edited in Proof by Dr. W.B. Hale." 20 November 1908, 1.
- New York Times*. "70-Year Effect of Bombs Denied." 9 August 1945, 8.
- . "Adolph S. Ochs." 9 April 1935, 20, 21.
- . "Begin Wide Inquiry Into Radium Deaths." 20 June 1925, 1, 6.
- . "Bikini DP's Reported Now Self-Sufficient, But Older Ones Pine for Lagoon, Navy Says." 21 April 1949, 27.
- . "Blame Radium For Death." 9 June 1925, 14.
- . "Fortune Says A.E.C. Cleared Atom Article And Bought 500 Reprints for Distribution." 5 October 1951, 12.
- . "Injury From The X Rays." 27 April 1897, 5.
- . "Islanders in U.N. Plea." 27 April 1960, 6.
- . "Kaiser Talks of Roosevelt." 21 July 1908, 1.
- . "Leaders in Government, Journalism and Other Fields Offer Tributes to Sulzberger's Career." 12 December 1968, 41.
- . "Publisher Made Striking Changes." 12 December 1968, 40.
- . "Radium Killed Woman, Relatives Declare; She Is Seventh Watch Dial Painter to Die." 19 June 1925, 1.
- . "Radium Suits Settled." 5 May 1926, 21.
- . "Radium Victims Win \$50,000 and Pensions in Suit Settlement." 5 June 1928, 1, 8.
- . "Recent Atom Tests Declared A Success." 13 June 1951, 11.
- . "Reds Say U.S. Tests Violate Trust Pact." 7 July 1954, 4.
- . Report of the Committee Safeguarding the Integrity of Our Journalism (the Siegal Committee). July 30, 2003. [www.nytc.com](http://www.nytc.com), click press, accessed 18 January 2004.

- .“Statement of the *New York Times*’s Aim Established Journalistic Standard.” 9 April 1935, 4, 17.
- .“Sulzberger Stressed News Coverage, Financial Strength and Technical Progress.” 12 December 1968, 40.
- .“Text of Statements by Truman, Stimson on Development of Atomic Bomb.” 7 August 1945, 4.
- .“Text of Truman Security Statement and Transcript of Discussion.” 5 October 1951, 12.
- .“Text of United States Proposal on Trusteeship in the Pacific.” 7 November 1946, 24.
- .“Texts of Bomb Protest and U.S. Reply.” 15 May 1954, 10.
- .“To Begin Two Suits Against Radium Co.” 24 June 1925, 21.
- .“To Fight Radium Hazards.” 26 February 1929, 21.
- .“Truman Criticizes Press.” 7 November 1947, 16.
- .“United States Makes Proposal on Islands of Pacific.” 7 November 1946, 24.
- .“U.S. Aide Defends Lying to Nation.” 7 December 1962, 5.
- .“U.S. Assumes Rule Of Isles In Pacific.” 20 July 1947, 35.
- .“War Department Called Times Reporter to Explain Bomb’s Intricacies to Public.” 7 August 1945, 5.
- .“William L. Laurence.” 4 May 1937, 21.
- .“William Laurence, Ex-Science Writer for the Times, Dies.” 19 March 1977, 1, 7.
- .“Women Ask \$1,250,000 in Radium Poisoning; Hear in Court Their Chance to Live Is Slender.” 27 April 1928, 1.
- New York World*. “Germans Divided as to Interview.” 22 November 1908, 3.
- .“Hale Approved Kaiser Interview Printed in World.” 22 November 1908, 1, 3.
- .“Kaiser Says His Lesson as Told.” 22 November 1908, 3.
- .“Next Outbreak in Germany, Volcanic.” 22 November 1908, 3.
- Niedenthal, Jack. *For the Good of Mankind: A History of the People of Bikini and Their Islands*. Majuro, Marshall Islands: Micronitor Publishing, 2001.
- North American Newspaper Alliance. “Raremetal [sic] ‘Bumps’ Plutonium Poison.” *New York Times*, 22 February 1948, 10.
- Novak, Benjamin. “An Analysis of the Science Content of the *New York Times* and of Selected General Science Textbooks.” Ph.D. diss., Temple University, 1942.
- Noyes, Dan, Maureen O’Neill and David Weir. “Operation Wigwam,” *New West*, 1 December 1980, 25-38.
- Okrent, Daniel. “The Public Editor: An Advocate for Times Readers



- Introduces Himself." *New York Times* [online], 7 December 2003, Week in Review Desk.
- Palafox, Neal A., David B. Johnson, Alan R. Katz, Jill S. Minami and Kennar Briand. "Site Specific Cancer Incidence in the Republic of the Marshall Islands." *Cancer Supplement* 83, no. 8, (October 15, 1998), 1821-24.
- Parenti, Michael. *Inventing Reality: The Politics of News Media*, 2d ed. New York: St. Martin's Press, 1993.
- Parrott, Lindesay. "Japan Buries Fish Exposed To Atom." *New York Times*, 18 March 1954, 6.
- . "Japan Gets Radioactive Fish." *New York Times*, 17 March 1954, 1, 9.
- . "Japan Postpones Atom Ship Claim." *New York Times*, 19 March 1954, 4.
- Pevac, Davor Z. Audiotaped and videotaped presentation. "Enewetak and the H-Bomb after 50 Years: A Time for Just Compensation." University of Hawaii, March 6, 2001.
- Republic of the Marshall Islands. "Petition Presented to the Congress of the United States of America Regarding Changed Circumstances Arising From U.S. Nuclear Testing in the Marshall Islands." 11 September 2000. <http://www.rmiembassyus.org>; click nuclear, then petition, accessed 8 February 2004.
- Republic of the Marshall Islands Nuclear Claims Tribunal. "Annual Report to the Nitijela for the Calendar Year 1997." No date; no place.
- . "Annual Report to the Nitijela for the Calendar Year 1999." No date; no place.
- . "Annual Report to the Nitijela for the Calendar Year 2002" with two-page insert beginning "Facts about the Tribunal's Personal Injury Compensation Awards." No date; no place.
- Reston, James. "Propaganda Tragedy." *New York Times*, 1 April 1958, 14.
- Rifkin, Jeremy. *Harnessing the Gene and Remaking the World: The Biotech Century*. New York: Jeremy P. Tarcher/Putnam, 1998.
- Rooney, E.J., Lt. (JG). "The Strange People From Bikini." *New York Times Magazine*, 31 March 1946, sec. VI, 23, 59.
- Rosenthal, A.M. "Marshall Islanders Protest To U.N. on Nuclear Tests." *New York Times*, 15 May 1954, 1, 10.
- . "Tests Protested by Marshallese." *New York Times*, 15 May 1954, 5.
- Rosi, Eugene J. "Elite Political Communication: Five Washington Columnists on Nuclear Weapons Testing, 1954-1958." *Social Research* 34 (1967), 703-27.
- . "How 50 Periodicals and the *Times* Interpreted the Test Ban Controversy." *Journalism Quarterly* 41 (1964), 545-46.

- Rubin, David M. and Constance Cummings. "Nuclear War and Its Consequences on Television News." *Journal of Communication* 39, no. 1 (Winter 1989), 39-58.
- Schramm, Wilbur, ed. *One Day in the World's Press: Fourteen Great Newspapers on a Day of Crisis*. Stanford, Calif.: Stanford University Press, 1959.
- Schroth, Raymond A. "Following the Boys." *Columbia Journalism Review* 33, no. 3 (September-October 1994), 50-52.
- Schwartz, Stephen I., ed. *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*. Washington, D.C.: Brookings Institution Press, 1998.
- Seaborg, Glenn T. "The Discovery of Plutonium in the Cyclotron," in *The Metal Plutonium*, eds. A.S. Coffinberry and W.N. Miner. Chicago: University of Chicago Press, 1961, 9-12.
- \_\_\_\_\_. "Foreword," in Jonathan M. Weisgall, *Operation Crossroads: the Atomic Tests at Bikini Atoll*. Annapolis, Md.: Naval Institute Press, 1994, ix-xvii.
- Shalett, Sidney and Zadig Bertrand. "Operation Crossroads." *New York Times Magazine*, 17 February 1946, 8-9.
- Shields, Warren. "Shattuck Lecture: You, Your Patients and Radioactive Fallout." *The New England Journal of Medicine* 226, no. 22 (31 May 1962), 1123-1125.
- Simon, S.L. and W. L. Robison. "A Compilation of Nuclear Weapons Test Detonation Data for U. S. Pacific Ocean Tests," *Heath Physics* 73, no. 1 (July 1997), 258-264.
- Shoemaker, Pamela J. and Stephen D. Reese. *Mediating the Message: Theories of Influences on Mass Media Content*, 2d. ed. New York: Longman, 1996.
- Smith, R. Jeffrey. "Atomic Bomb Tests Leave Infamous Legacy." *Science*, 15 October 1982, 266-69.
- \_\_\_\_\_. "Scientists Implicated in Atom Test Deception." *Science*, 5 November 1982, 545-47.
- Spark M. Matsunaga Institute for Peace. *50 Years with the Bomb*. Honolulu, 1995.
- Stayman, Allen P. "Renegotiating the Compacts of Free Association." Audiotaped presentation at the Pacific Islands Studies Occasional Seminar Series. Honolulu: University of Hawaii, 9 May 2000.
- Stuart Hall: Representation and Media*, videocassette, 55 min., Media Education Foundation, no date.
- Sulzberger, A.O. Jr. "U.S. Responsible in Atom Testing, House Unit Says." *New York Times*, 7 August 1980, 14.
- The Associated Press. "Isle 10 Miles Long Wiped Out." *New York Times*,

- 21 February 1954, 18.
- . "Marshall Islanders' suffering priceless." *Honolulu Advertiser*, 9 May 2000, 1.
- . "Text of Statement and Comments by Strauss on Hydrogen Bomb Tests in the Pacific." *New York Times*, 1 April 1954, 20.
- . "The Texts of the War Crimes Committee Report and the Jackson Statement." *New York Times*, 9 August 1945, 10.
- . "U.S. Plans to Announce Every Test as it Occurs." *New York Times*, 26 April 1962, 13.
- . "Would Tell More of Eniwetok." *New York Times*, 2 April 1952, 3.
- Thomas, Dana. "Birthday Suit." *New York Times* [Nexis Document], 30 June 1996, sec. 6, 39.
- Titus, Alice Costandina. "Selling the Bomb: Public Relations Efforts by the AEC during the 1950s and Early 1960s." *Government Publications Review* (1989), 15-29.
- Trumbull, Robert. "Pacific Islanders Score Atom Tests." *New York Times*, 20 April 1958, 25.
- . "Song of the South Pacific Islanders: Don't Dump It Here." *New York Times* [Nexis Document], 2 September 1984, sec. 4, E5.
- . "A Swing Around Our Pacific 'Empire'." *New York Times Magazine*, 19 May 1946, 13, 59-60.
- U.S. Congress Special Subcommittee on Radiation of the Joint Committee on Atomic Energy. *The Nature of Radioactive Fall-Out and Its Effects on Man. Hearings*. 85th Cong., 1st sess., Part 1, 3 June 1957.
- U.S. *Congressional Record. Proceedings*, 79th Cong., 2nd sess., part 3, 29 March 1946, S2790-94.
- . 79th Cong., 2nd sess., 18 April 1946, H4023-24.
- . 79th Cong., 2nd sess., part 6, 14 June 1946, S6926-33.
- U.S. Defense Nuclear Agency. *Operation Wigwam*. DNA 6000F. Washington, D.C.: National Technical Information Service, 1981.
- . *Operation Hardtack I*, 1958. Report DNA 6038F. Washington, D.C.: National Technical Information Service, 1982.
- U.S. Department of Energy. *United States Nuclear Tests, July 1945 through September 1992*. DOE/NV-209-Rev. 14. Las Vegas, Nev.: USDOE Nevada Operations Office, Office of External Affairs, December 1994.
- . Letter with one-page attachment from Paul J. Seligman, deputy assistant secretary for health studies, to Sheiko Eknilang, 28 June 1999.
- U.S. Department of Energy Office of Environmental Management. *Closing the Circle on the Splitting of the Atom: The Environmental Legacy of Nuclear Weapons Production in the United States and What the Department of Energy is Doing About It*. No place, no publisher, no

- date.
- U.S. General Accounting Office. "Kwajalein Atoll is the Key U.S. Defense Interest in Two Micronesian Nations," GAO-02-119. Washington, D.C.: General Accounting Office, January 2002.
- U.S. House Committee on Interstate and Foreign Commerce and its Subcommittee on Oversight and Investigations. *"The Forgotten Guinea Pigs": A Report on Health Effects of Low-Level Radiation Sustained as a Result of the Nuclear Testing Program Conducted by the United States Government*. Committee Print 96-IFC. Washington, D.C.: U.S. House of Representatives, 1980.
- U.S. House Committee on Naval Affairs. *Hearings on House Joint Resolution 307, 79th Cong., 2nd sess., 29 January 1946*.
- U.S. House Committee on Resources. *The Status of Nuclear Claims, Relocation and Resettlement Efforts in the Marshall Islands*, 106th Cong., 1st sess., 11 May 1999. Accessed at [http://www.access.gpo.gov/resources/hii57451.000/hii57451\\_Of.htm](http://www.access.gpo.gov/resources/hii57451.000/hii57451_Of.htm) on 3 January 2000.
- \_\_\_\_\_. *Oversight Hearing: The Compacts of Free Association*. 17 July 2002: <http://resourcescommittee.house.gov/107cong/fullcomm/2002/jul17/> accessed May 23, 2003.
- U.S. House Subcommittee of the Committee on Government Operations. *Availability of Information from Federal Departments and Agencies Part 1—Panel Discussion with Editors et al.*, 84th Cong., 1st sess., 7 November 1955.
- U.S. House Subcommittee on Energy Conservation and Power. *American Nuclear Guinea Pigs: Three Decades of Radiation Experiments on U.S. Citizens*. Committee Print 99-NN. Washington, D.C.: U.S. House of Representatives, 1986.
- U.S. House Subcommittee on Oversight and Investigations of the Committee on Natural Resources. Hearing. *Natural Resources on Radiation Exposure from Pacific Nuclear Tests*, 103 Cong., 2nd sess., 24 February 1994.
- U.S. House Subcommittee on Public Lands and National Parks of the Committee on Interior and Insular Affairs. *Hearing Before the Subcommittee on Public Lands and National Parks of the Committee on Interior and Insular Affairs House of Representatives on Section 177 of the Proposed Compact of Free Association: Compensation for Victims of U.S. Nuclear Testing in the Marshall Islands*, 98th Cong., 2nd sess., 8 May 1984.
- U.S. Senate Committee on Governmental Affairs. *Human Radiation Experiments: Hearing Before the Committee on Governmental Affairs United States Senate*, 104 Cong., 2nd sess., 12 March 1996.
- \_\_\_\_\_. *Report of the Commission on Protecting and Reducing Government*

- Secrecy*, 105th Cong., 1st sess., 7 May 1997.
- U.S. Senate Committee on Naval Affairs. *Hearing on H.J. Res. 307, Part 2*, 79th Cong., 2nd sess., 18 April 1946.
- U.S. Senate Committee on Naval Affairs. *Hearing*. 79th Cong., 2nd sess., 19 March 1946.
- U.S. Senate Special Committee on Atomic Energy. *Hearing*, 79th Cong., 2nd sess., 24 January 1946.
- United Nations Trusteeship Council. *Report on the Trust Territory of the Pacific Islands*. Supplement No. 3. United Nations, 1956.
- United Nations Trusteeship for Pacific Islands*. 61 Stat. 3301, 80th Cong., 1st sess., 18 July 1947.
- United Press. "14 NATO Delegates To See Atomic Test." *New York Times*, 23 May 1958, 2.
- . "Radioactive Ash Rains on Japan, Member Complains to the Diet." *New York Times*, 26 March 1954, 5.
- . "Report on H-Bomb Hidden 3 Months." *New York Times*, 25 March 1955, 11.
- . "Sickness After Visit To Hiroshima Denied." *New York Times*, 9 September 1945, 34.
- . "Yale Censors Its Study of Censorship Breaches." *New York Times*, 5 October 1951, 12.
- Voss, Frederick S. *Reporting the War: Journalistic Coverage of World War II*. Washington, D.C.: Smithsonian Institute Press, 1994.
- Walz, Jay. "Atom Bombs Made in 3 Hidden 'Cities'." *New York Times*, 7 August 1945, 1.
- Weart, Spencer R. *Nuclear Fear: A History of Images*. Cambridge: Harvard University Press, 1988.
- Weisgall, Jonathan M. "The Nuclear Nomads of Bikini Atoll." *Foreign Policy* 39 (Summer 1980), 74-98.
- . *Operation Crossroads: The Atomic Tests at Bikini Atoll*. Annapolis, Md.: Naval Institute Press, 1994.
- Welsome, Eileen. *The Plutonium Files: America's Secret Medical Experiments in the Cold War*. New York: The Dial Press [Random House, Inc.], 1999.
- Whyte, R.K. "First day neonatal mortality since 1935; reexamination of the Cross hypothesis." *British Medical Journal* 304, 8 February 1992, 343-46.
- Yamazaki, James N. with Louis B. Fleming. *Children of the Atomic Bomb: An American Physician's Memoir of Nagasaki, Hiroshima, and the Marshall Islands*. Durham, N.C.: Duke University Press, 1995.

# Index

## A

---

Able test, 179–84  
Abramson, Jill, 284  
Adler, Julius Ochs, 142  
Advisory Committee on Human Radiation Experiments, 254  
agenda setting, 20  
Ainri, Almira, 84–90, 91–93, 96–97, 273  
Akizuki, Tatsuichiro, 72  
Alamogordo Air Base, 53–54  
*Albuquerque Tribune*, 23  
Allen, William, 201  
Allimadi, Milton, 291–92  
*American Journalism History* (Sloan), 301  
American Society of Newspaper Editors, 274, 276  
Amos, Dorothy, 206  
Anjain, John, 13, 254  
Anjain, Leko, 223  
“anniversary journalism,” 237, 291  
Anti-Ballistic Missile Treaty (1972), 272  
Argonne National Laboratory, 221  
Army, U.S., 10  
Associated Press, The (AP), 56, 176, 178, 182, 185, 190, 195  
Atomic Energy Act (1946), 139  
Atomic Energy Commission (AEC), 46, 59, 139, 215, 256  
    and Bravo test, 200, 216–19  
    on effects of radiation, 74, 76, 78, 159, 288  
    and Merril Eisenbud, 176  
    and National Nuclear Energy Series, 226  
    suppression of information by, 212–13  
Austin, Warren, 101, 103

## B

---

Baker test, 131, 184–87  
Baldwin, Hanson, 31–32, 35, 42, 63, 65, 69, 142, 146–47, 160–61, 168, 173, 178, 185, 186, 195, 302  
Barker, Holly, 92, 210  
Bay of Pigs, 35–36  
Becquerel, Henri, 49–50  
Bedjaoui, Mohammed, 23  
Berger, Meyer, 29, 30, 45  
Beschloss, Michael, 35–36  
Besse, Janet, 301  
Bikini Atoll  
    and Baker test, 8

    and Bravo test, 84, 86, 93, 95, 198–232  
    climate of, 90–91  
    displaced persons from, 187–89, 269, 279–80  
    effect of Compact on, 105–106  
    and 50th anniversary of Operation Crossroads, 234–35  
    *New York Times* coverage of, 165–79  
    and Operation Crossroads, 7–8, 165–97  
    as proving ground, 98–100, 104, 109, 164–97  
    radiation on, 113–14  
    See also Bravo test; Operation Crossroads  
Bingham Jr., Hiram, 92  
*Biological Studies with Polonium, Radium, and Plutonium*, 227  
Black, Hugo, 39  
Blair, Jayson, 16, 282, 284–85  
Blandy, William H. P., 164–67, 185  
Bobo, Aruko, 210  
Bohr, Niels, 1  
Boyer, Paul, 80  
Bradley, David, 192  
Bradley, Michael, 166  
Bravo test (1954), 86, 93, 95, 113, 198–232, 254  
    40th anniversary of, 257  
    health effects of, 205–209, 223–29  
    islanders as “guinea pigs,” 205–209, 214  
    and thyroid problems, 209–10  
    See also Bikini Atoll; Operation Crossroads  
Braw, Monica, 69  
*British Medical Journal*, 246–47  
Broad, William J., 7  
Brookhaven National Laboratory, 117, 215, 221–22, 223–24, 229, 231, 249–50, 251, 255–56  
Brooklyn Museum of Art, 238  
*Bulletin of the Atomic Scientists, The*, 219  
Burchett, Wilfred, 76–78, 80  
Bush, George W., 107, 270  
Bush II Administration, 264, 272, 281, 288  
Byrd, A. C., 256

## C

---

Carucci, Laurence M., 15, 114  
Cater, Douglass, 40  
Catledge, Turner, 29, 34, 36, 142  
Celler, Emanuel, 169  
Center for Investigative Reporting, 131  
Central Intelligence Agency (CIA), 140,

148–49, 163  
 Chernobyl, 287  
 China, 109, 135  
 Churchill, Winston, 34  
 Clark, Charlie, 81–82  
 Clark, Claudia, 49  
*Cleveland Press, The*, 142  
 Climax test (1953), 94  
 Clinton Administration, 23, 214  
 Compact of Free Association (1986), 105, 235, 239–40, 248, 272  
 Compact II, 105  
 Cronkite, E. P., 205–209, 214, 215  
 Cummings, Constance, 301  
 Curie, Marie, 154

---

**D**

Daghlian, Harry, 51–52  
 Davies, Lawrence K., 104  
 Davis, Elmer, 28  
 Davis, Jeffrey, 242  
*Day of Two Suns, A*, 249  
 Dean, Gordon, 119, 137, 143, 274  
 deBrum, Oscar, 258  
 deBrum, Tony, 256  
 Defense Nuclear Agency, 191, 200  
 Department of Energy, U.S. (DOE), 11, 110–11  
   on islanders as subjects of experiments, 255–58  
   1994 list, 110, 115, 119, 122, 127, 134, 180, 294  
   and Operation Wigwam, 129  
   on plutonium, 251–52  
   on Rongelap, 248  
 depleted uranium, 10–11, 288  
 Dibblin, Jane, 249–50  
 Dryfoos, Orvil, 27, 36  
 Dulles, John Foster, 34, 101  
 Dunning, Gordon, 204

---

**E**

Eastland, James, 140  
 Edy, Jill A., 237, 291  
*Effects of Atomic Weapons, The* (U.S. Government), 187  
 Einstein, Albert, 46, 49, 50, 70, 82, 219  
 Eisenbud, Merrill, 51, 176, 197, 205  
 Eisenhower Administration, 120, 124–26,

288  
 Eisenhower, Dwight, 137, 143, 261  
 Eisler, Peter, 10  
 Eknilang, Isao, 206  
 Eknilang, Sheiko, 256  
 Enewetak Atoll, 15, 90–91, 97, 104, 105–106, 114–15, 137, 164–69, 190–91, 195–97, 244–46, 269, 280  
 Engebi, 97  
 Espionage Act (U.S.), 62  
 Executive Order 9835, 140  
 Executive Order 10290, 141, 147

---

**F**

fallout, 201  
 Farrell, Thomas F., 63  
 Faulkner, William, 261, 263  
 FBI, 46  
 Federal Employee Loyalty Program, 140  
 Federation of American Scientists, 273  
 Feis, Herbert, 9  
 Fermi, Enrico, 1  
 First International Congress of Radiation Research, 221  
 Firth, Stewart, 108, 191  
 fission v. fusion, 143–44  
 Foner, Eric, 13  
 Food and Drug Administration, U.S. (FDA), 129  
*Fortune*, 147  
 Freedom of Information Act, 289, 290  
 Friends of Micronesia, 223  
 Frigate Bird test, 295  
 Fuchs, Klaus, 138

---

**G**

Geneva Conventions of 1949, 67  
 Gitlin, Todd, 20  
 Goering, Herrman, 67  
*“Good War, The”* (Terkel), 243  
 Goodman, Walter, 250  
 Gordon, Seth, 129  
 Gore Jr., Albert, 242  
 Greenpeace, 216, 248  
 Grossman, Karl, 292  
 Groves, Leslie, 40–41, 43, 47  
   use of journalists, 78–79  
   and Patrick Stout, 80  
   and radioactivity, 51–52, 136, 138

and Trinity atomic test, 53–59  
and “white bootie caper,” 262

## H

Hacker, Barton, 58  
half life, 250–52  
*Half Life* (O'Rourke), 250  
Hall, Stuart, 59–60  
Hanford, Washington, 160  
Harrison, John, 197  
Hebert, F. Edward, 195–96  
Heine, John, 97  
Herrington, John, 252  
Hersey, John, 82–83  
Hill, Gladwin, 145  
Hines, Neal O., 193, 213, 302  
Hiraoka, Takashi, 225  
Hiroshima  
    Burchett's account of, 76–78  
    justification of, 68–70  
    legality of A-bombing, 65–70  
    and Nuremberg, 66  
    radiation in, 59–65  
*Hiroshima* (Hersey), 82–83  
Huffman, James W., 170  
Hull, John E., 190  
Hussein, Saddam, 280

## I

Ickes, Harold, 188  
*Index to Legal Periodicals*, 230  
Inouye, Daniel, 132  
International Conference for a Nuclear-Free  
    Pacific, 223  
International Court of Justice. See World  
    Court  
Iraq, 280

## J

Jackson, Henry, 130  
Jackson, Robert H., 66–67  
Jacobson, Harold, 61–62  
James, Edwin, 2, 41, 42  
Johnson, Johnny, 14  
Johnson, Lyndon B., 222  
Johnston Island, 109, 110, 132  
Joint Task Force One, 165  
Jones, George E., 52–53  
Joseph, Nerja, 210

*Journal of the American Medical Association*  
(JAMA), 113, 208–209, 221–22, 224, 229

## K

Kaempffert, Waldemar, 31  
Kebenli, Norio, 87  
Kedi, Ken, 90  
Kendall, Wilfred, 91  
Kennedy Administration, 111–12, 121, 134  
Kennedy, John F., 29, 35–36, 133, 135  
Kessibuki, Lore, 189  
Khrushchev, Nikita S., 135  
Kissinger, Henry, 108, 118  
Kiste, Robert C., 90, 93, 96, 118  
Klapper, Joseph, 17  
Krock, Arthur, 35, 149–50  
Kuboyama, Aikichi, 203  
Kundera, Milan, 237  
Kwajalein Atoll, 272

## L

Lapp, Ralph, 125, 199–200, 201–203, 219  
Lasswell, Harold D., 301  
Laurence, William L., 302  
    on A-bombing Japan, 68–70  
    on Able test, 179–81  
    childhood and early career, 45–48  
    early atomic writing, 40  
    on effects of testing, 187  
    on Enewetak test, 195  
    as first *Times* science writer, 31–32  
    introduction to atomic weaponry, 1–2, 20  
    and Manhattan Project, 53  
    use of metaphors, 75, 277  
    on Nagasaki bombing, 17–19, 70–72  
    on Operation Greenhouse, 195  
    on Operation Redwing, 123–24  
    on plutonium, 151–52, 155–56  
    suppression of news, 3, 228–29  
    suppression of radiation news, 53–59, 59–65,  
        73–74, 78–80, 262–64, 276–77  
    ten-article series, 57, 72–74  
    and Trinity test, 53–58  
    as War Department employee, 40–45, 47–48,  
        276–77  
    and “white bootie caper,” 261  
Law of the Sea Treaty, 240  
Leahy, William, 69  
Lee, Wen Ho, 283  
Libby, Willard, 192



*Life*, 79–80, 262–63  
 Limited Test Ban Treaty (1963), 109, 112, 135  
 Lippmann, Walter, 20  
 Lipstadt, Deborah E., 292  
*London Daily Express*, 76–77  
 Lucas, Scott W., 170–72  
*Lucky Dragon*, 120, 201–203  
 Ludlow, Louis, 172

## M

Makhijani, Arjun, 94, 163, 257  
 “managed news,” 144  
*Manchester Guardian*, 202  
 Manhattan Project, 40, 46, 226  
 Marshall Islands, 105  
   health effects of weapons testing, 106, 113, 279  
   history and traditions of, 87, 89–93, 96  
   Marshall, William, 92  
   nuclear weapon tests on, 5, 84, 86  
   as test subjects, 271–73  
   Treaty of Tordesillas (1494), 92  
   and World War II, 96–98  
 Marshall, William, 92  
 Mason, Leonard, 178–79, 188  
 McCarthy, Joan, 131  
 McCarthy, Joseph, 140  
 McCarthy, Tom, 131  
 McCone, John, 127  
 McCormick, Anne O’Hare, 108, 179  
 McGraw, John, 95  
 Medico-Legal Board, 138  
 Meiling, Richard, 81  
 Middlesworth, Van, 209–10  
 Mike test, 119–20, 137, 196–97  
 Miller, George, 205  
 Miller, Richard L., 18  
 Mitgang, Herbert, 249–50  
 Morgan, Karl, 163  
 Morison, Samuel Eliot, 97  
 Moss, John, 142  
*Mount McKinley*, USS, 187  
 Moynihan, Patrick, 136, 140  
 Muller, Phillip, 255–56  
 Mumford, Lewis, 202

## N

Nagasaki

death toll, 70–72  
 radiation in, 52–53, 59–65  
 National Museum of American Jewish History, 292  
 National News Council, 283  
 National Nuclear Energy Series, 226  
 National Security Council (NSC), 143  
 NATO, 10  
 Navy, U.S., 10, 84  
 Nehru, Jawaharlal, 219  
*New York Journal*, 28  
*New York Times*, *The*  
   on Able test, 179–84  
   on Baker test, 184–87  
   on Bikini Atoll 1980–2004, 237–43  
   on the bikini swimsuit, 234–35  
   on Bravo test, 207–209, 217, 219–25, 228–29  
   business strategy, 24–25  
   on classified information, 141–43  
   on the Compact of Free Association, 105  
   on Compact II, 105  
   on displaced persons, 269  
   on Enewetakese, 190, 244–46  
   on failed tests, 134–35  
   on 50th anniversary of Operation Crossroads, 234–35  
   on 40th anniversary of Bravo test, 257  
   as government propaganda tool, 24  
   on government secrecy, 144–47  
   as government supporter, 32–33, 273–75  
   on Hiroshima A-bombing, 59–65  
   and Jayson Blair scandal, 284–85  
   and media framing, 19–20  
   on Mike test, 196–97  
   on Nagasaki A-bombing, 52–53, 59–65  
   and Nazi holocaust, 292  
   and neglect of legal literature, 230  
   Ochs’ business principles, 27–32, 266–80  
   on Operation Crossroads, 165–79, 191–93  
   on Operation Hardtack I, 126–28  
   on Operation Redwing, 123–26  
   on Operation Sandstone, 194–95  
   on Operation Wigwam, 128–31  
   on Pacific islands and tests 1980–2004, 235–60  
   on plutonium, 156–63, 250–52, 267–68  
   on “radium girls,” 49–51  
   on Rongelap 1980–2004, 246–50  
   support for nuclear testing, 202  
   suppression of news, 230–32, 253–55

suppression of radiation news, 80–83,  
 113–18, 266–67, 271–73  
 suppression of frequency and yield news,  
 119–21, 122–35  
 on TTPI, 99–104, 211–12, 269–71  
 on “un-American” activities, 140–41  
*New York Times Magazine*, The, 30  
*New York World*, 28  
*New Yorker*, The, 82–83  
 news audit, 281–83  
*Newsweek*, 173  
 Niedenthal, Jack, 100  
 9/11, 8  
 Nucker, Delmas, 192  
 Nuclear Claims Tribunal, 21–22, 246, 257,  
 258–59  
 Nuclear-Free Pacific movement, 239–40  
 “nuclear racism,” 94  
 nuclear weapons tests, 3  
   clean-up costs, 252  
   costs of, 278  
   failures, 134–35  
   fatalities from, 236, 278  
   legal liabilities, 139  
   in Pacific, 11–13, 118–23  
   “restricted data,” 139  
 Nuremberg International Military Tribunal,  
 66–67

---

**O**

Oak test, 191  
 Ochs, Adolph S., 232  
   business principles of, 266, 275–76  
   early career, 26  
   and Grover Cleveland, 26  
   *Knoxville Chronicle*, 26  
   purchase of NYT, 26  
   and suppression of news, 33, 34–36  
   *See also New York Times*  
 Ochs, Iphigene, 32  
 Official Secrets Act, 295  
 O’Hara Jr., Frederick, 301  
 Okrent, Daniel, 283, 286  
 O’Leary, Hazel, 294  
 Ong, Walter, 89  
 Operation Castle, 216  
 Operation Crossroads, 7–8, 165–97, 234–35,  
 271, 273. *See also* Bikini Atoll; Bravo test  
 Operation Dominic, 295  
 Operation Greenhouse, 119, 195, 274

Operation Ivy, 119–20  
 Operation Hardtack I, 126–28, 216  
 Operation Newsreel, 295  
 Operation Redwing, 123–26, 216  
 Operation Sandstone, 194–95  
 Operation Wigwam, 8, 128–31, 275, 295  
 Oppenheimer, J. Robert, 58, 61–62, 69,  
 78–79, 94, 169, 230, 262, 273  
 O’Rourke, Dennis, 250

---

**P**

Pacific Proving Ground, 111  
 Paine Jr., Ralph D., 148  
 Parenti, Michael, 60, 130  
 Pauling, Linus, 219, 224–25  
 plutonium  
   accidents, 158  
   dangers of, 151–53, 157–63  
   in food chain, 153  
   half life of, 154–55, 288  
   reporting on, 250–52, 267–68  
*Plutonium Files*, The (Welsome), 14, 227  
 Pool, Ithiel de Sola, 24  
 Pope Pius XII, 219  
 Potsdam Conference, 54  
 Powell, Norman John, 17  
 Powers, Francis, 35  
 Presidential Advisory Committee on  
   Human Radiation Experiments, 255  
 press, as watchdog, 39–40, 42–44  
 Project Argus, 34–35  
 Project for Excellence in Journalism, 39  
 Project 4.1, 12, 86, 205, 214, 215, 232  
 Public Health Service, U.S., 253

---

**Q**

Quinn, William, 132

---

**R**

radiation, 8  
   experiments with, 286  
   health risks of, 155  
 radioactivity, 154  
   on Bikini Atoll, 185  
   early awareness of, 49–52  
   estimated cancer fatalities from, 21  
   spread of, 108–109  
 “radium girls,” 49–51  
 Reagan Administration, 239–40, 272  
 Reagan, Ronald, 105

Reard, Louis, 234–35, 243, 277  
 Reese, Stephen, 37  
 re-nuclearization, 9–11, 264, 288  
 Republic of the Marshall Islands (RMI).  
   See Marshall Islands  
 Reston, James, 36, 127, 142–43, 149–50  
 Revelle, Roger, 186  
 Richland, Washington, 160–61  
 Rifkin, Jeremy, 265  
 Riklon, Johnsay, 91, 257  
 Ronald Reagan Ballistic Missile Defense  
   Test Site, 273  
 Rongelap Atoll, 84–87, 92–93, 97, 106,  
   117, 177, 212–13, 216, 246–50, 257,  
   268–69  
 Roosevelt, Franklin D., 34, 46, 50  
 Roosevelt, Theodore, 33  
 Rosi, Eugene, 301  
 Rubin, David M., 301  
 Rudolph, Irene, 49  
 Rumsfeld, Donald, 14  
 Runnels, Elroy, 130–31  
 Rusk, Howard A., 32, 228  
 Rust, John H., 58

---

**S**


---

Salinger, Pierre, 145  
 Salisbury, Harrison, 31, 35–36  
*Saratoga*, USS, 241  
 Saud, King Ibn, 34  
 Schattschneider, E. E., 170  
 Schaub, Katherine, 49–50  
 Schroth, Raymond A., 71–72  
 Schwartz, Stephen I., 22, 252, 257  
 Schweitzer, Albert, 219  
*Scientific Monthly, The*, 193  
 Seaborg, Glenn T., 153  
 Seltzer, Louis, 142  
 Senate Committee on Governmental  
   Affairs, 254  
 Shalet, Sidney, 63  
 “shock and awe,” 280–81  
 Shoemaker, Pamela, 37  
 Sigma Delta Chi, 141  
 Slocum, Richard W., 140  
 Smith, Walter Bedell, 34  
 Smitherman, John, 242  
 Society of Professional Journalists, 41, 276  
 Spaatz, Carl A., 64

*Spie*, 39  
 Stalin, Joseph, 34, 70  
 “Star Wars,” 272  
 Starfish Prime test, 120  
 Stevenson, Adlai, 126, 162  
 Stimson, Henry L., 62, 136  
 Stone, I. F., 290  
 Stout, Patrick, 80–83  
 Strauss, Lewis, 124–25, 129, 207–208, 217  
 Sulzberger, Arthur Hays, 27, 33, 41  
 Sumskol, Mikhail M., 212  
 Swordfish test, 295  
 Szilard, Leo, 46, 50

---

**T**


---

Takaki, Ronald, 53  
 Tamayose, Chiyoko, 98  
 Tanaka, Tomoyuki, 243  
 Task Force on Radiation and Human  
   Rights, 256  
 Taylor, Telford, 66–67  
 Teak test, 132  
 Teller, Edward, 245  
 Thomas, Elbert, 104  
 Thompson, Fred, 138  
 Three Mile Island, 287  
 Treaty of Tordesillas (1494), 92  
 Trinity test, 2, 42  
   “Hot Canyon,” 58–59  
   and suppression of radiation news, 53–59  
   See also William Laurence; *New York Times*  
 Truman Administration, 168  
 Truman, Harry S., 20, 151, 153–54  
   executive orders, 140–41  
   on Hiroshima A-bombing, 63–64, 70  
   on imperialism, 65  
   on Japanese surrender, 54  
   on media, 147–49  
   on Operation Crossroads, 172, 176  
   on use of atomic weapons, 66  
   and use of Marshall Islands, 99–101  
 Trumbull, Robert, 178, 212  
 Trust Territory of the Pacific Islands  
   (TTPI), 98–104, 125, 193, 211–12,  
   269–71  
 Tsujimoto, Zenjiro, 72

---

**U**


---

U-2 spy planes, 35

Ullman, Harlan K., 280  
United Nations  
  General Assembly, 67-68  
  Trusteeship Council, 192, 211  
  and TTPI, 98-104  
United Press, 179, 185  
University of Rochester project, 226-27,  
  286  
*USA Today*, 10  
Utrik Atoll, 86, 106, 117, 212-13, 268-69

---

**V**

---

Vest, John P. W., 15, 190  
Vreeland, Diana, 238

---

**W**

---

Wade, James, 280  
Walker, Jimmy, 33  
Walsh, David I., 171  
War Department, U.S., 61  
Warren, Stafford, 52, 55-56, 182, 243  
Weart, Spencer, 46  
Weiman, David, 112  
Weisgall, Jonathan M., 7-8, 138, 173, 174,  
  176, 180, 182, 185, 198-99, 200, 204, 234,  
  254, 269  
Welsome, Eileen, 14, 23, 94-95, 109, 159,  
  210, 227  
Westin, Susan B., 107  
Whitaker, Don, 198, 200  
White, Geoffrey M., 96  
Whyte, R. K., 247  
Wiggins, J. R., 27  
Wiley, Louis, 31  
Wilson, Charles, 129  
*Woman's Home Companion*, 46  
World Court  
  health effects of Hiroshima A-bombing, 225  
  on legality of Hiroshima A-bombing, 66-67  
  on legality of nuclear weapons use, 304  
  on nuclear weapons, 23, 281  
World Health Organization (WHO), 10

---

**Y**

---

Yale University, 148-49  
Yalta Conference, 34  
Yamazaki, James, 80

# Acknowledgements

I am grateful for the assistance and generosity of many persons and groups in the preparation of this book. Very substantial was the support and guidance of colleagues at the University of Hawai'i who provided the inspiration and impetus for the first stages of research that led to this volume. These were: Professors David E. Stannard, Floyd W. Matson, James M. McCutcheon, Jon Kamakawiwo'ole Osorio, and Robert C. Kiste.

Valuable information was also gleaned from Professor Emeritus Leonard E. Mason, UH Environmental Coordinator John T. Harrison, Dr. James Yamazaki, journalist Lucy Jokiel and Almira Matayoshi, who graciously allowed me to interview her a number of times and then to write about her illuminating life story.

Professors Karl Grossman of State University of New York at Old Westbury and Sharon Friedman of Lehigh University provided valuable background that broadened the perspectives of this book. Facilitating my research at National Archives II in College Park, Maryland, were Robert S. Norris of the National Resources Defense Council, Wilbert Mahoney of the Archives staff and Professor Gail Okawa of Youngstown State University. Chris McDonough's photographs in Chapter 4 provided a powerful means for readers to visualize Almira and absorb her remarkable story.

Moreover, such an undertaking as a book would not be possible without the understanding, support and patience of one's family. I was blessed with these from my husband, Chuck; my parents, Martin and Doris Deepe, and my sister Joan.

Others have been generous in other ways. Vital research funding support was provided by the University of Hawai'i President's Diversity and Equity Initiative of 1999-2000. *The New York Times* permitted me to access its corporate archives in the basement of its historic home building on West 43rd Street.

Publisher Greg Bates of Common Courage Press had the fortitude and foresight to produce this controversial book. Aply assisted by Peter Hastings, Greg saw that the book demonstrated so powerfully the tragedy that results from press self-censorship and government secrecy that withhold ideas and facts essential for an informed democracy. His patient and judicious editing enlivened the volume. It gives a powerful voice to people from the four "atomic atolls" in

the Marshall Islands as well as to U.S. servicemen and unknown and unknowing victims of radioactive fallout that may persist for centuries, if not millennia. After half a century of being buried amidst top-secret documents, unreported Congressional papers and hearings, technically obscure medical and scientific articles, the investigative report provided in *News Zero* begins at last to capture the magnitude of the most awesome and destructive weapons in U.S. history and the bitter nuclear legacy they have left for generations to come.

Beverly Ann Deepe Keever, Ph.D.  
Honolulu, May 9, 2004

# About the Author

Beverly Ann Deepe Keever is a professor of journalism at the University of Hawai'i. She served as a co-editor of *U.S. News Coverage of Racial Minorities: A Sourcebook 1934-1996* (Greenwood Press, 1997). Before teaching, she worked as a journalist, covering the Vietnam War for seven years successively for *Newsweek*, *The New York Herald Tribune* and the *Christian Science Monitor*. Her coverage of the besieged out-



post of Khe Sanh in 1968 was nominated by the *Monitor* for a Pulitzer Prize in international reporting. She has since then received numerous awards for her freedom-of-information endeavors. For a career bridging the profession and the professorate, she received in April 2003 an award from the Columbia University Graduate School of Journalism Alumni Association.

