

China Builds the Bomb

John Wilson Lewis and Xue Litai



STANFORD UNIVERSITY PRESS
Stanford, California

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ISIS Studies in International Policy

Sponsored by the Center for International Security and Arms Control
of the International Strategic Institute at Stanford

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Stanford University Press
Stanford, California

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Leland Stanford Junior University
Printed in the United States of America

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Preface

To the eye of history, many things once hidden are now visible. But, finally, when we glimpse some small part of important past events, we look for meaning, and it is truly said that "in every object there is inexhaustible meaning; the eye sees in it what the eye brings means of seeing." So it is with our quest to learn why and how China built the bomb.

That quest began more than a decade ago. As China and the United States started improving their relations in the early 1970s, we took the initial steps that eventually led to our coauthoring this book. For years, each of us had looked across the Pacific, albeit from opposite sides, to a place that could never quite be reached. Then, in what seemed a moment, reality replaced fantasy, and we reached out to a place that once had seemed so hidden, even threatening. And thus almost by accident we came to this joint effort on China's nuclear weapons program.

How well prepared we were for the task only others can judge and time tell. Our interests, long in developing, ranged from Chinese politics to arms control. The atomic cloud at Hiroshima had cast its spell over our careers, even as we lived under the shadow of past American and Chinese hostilities. In the first three postwar decades, the revolutions of man and warfare exacted an appalling toll, and in the attendant turmoil nations acted in ways that might have brought destruction to us all. The Chinese bomb was at once a legacy of those times and a new factor in future world affairs. Our study was more than an inquiry into Chinese history. It became a search for answers, however partial and tentative, to some of the great questions of our age.

Writing this book required that we try to grasp as fully as possible what happened—in politics, industrial technology, military thinking,

high science, and national values. In our story of the Chinese bomb, we have dealt with each of these key aspects in examining the Politburo's decision in January 1955 to commence the bomb program—Project 02—and how that program progressed thereafter.

In Chapter 1, we note the many sources on which we have drawn. The published sources, all unclassified both in China and in the United States, provided an immense amount of data, and we have done our best to sort those sources out, reconcile the many discrepancies, and explain what they meant to the Chinese who participated and to others. Beijing clearly has been seeking to reveal the main historical outlines of its strategic weapons programs, and without these outlines we scarcely could have begun. How much the Chinese have elected to publish truly surprised us, and we expect much more to come.

As we delved into the subject, we recognized what a major task lay before us. How could we, social scientists, presume to sift through and make intelligent sense of data on uranium prospecting or the chemical makeup of a neutron initiator? What competence did we possess to evaluate the many technical sources with gaps and even outright contradictions? In this endeavor, we especially profited by being close to scientists, historians, and former governmental officials at Stanford University's Center for International Security and Arms Control. Need a scientific assessment, a lecture on uranium processing or postwar U.S. foreign policy, or just some common sense? Ask Barton Bernstein, Sidney Drell, Jack Evernden, Philip Farley, Alexander George, David Holloway, Gerald Johnson, Robert Mozley, Wolfgang Panofsky, Theodore Postol, Rudolph Sher, or Lynn Sykes (Columbia University). All of these colleagues gave liberally of their time and knowledge to discuss the history of other bomb programs, to explain a problem of physics or nuclear testing, to listen to a just-forming idea, or to read and comment on drafts.

Our special thanks go to Sid, our friend and special colleague at the Center, for his ceaseless encouragement and for so willingly agreeing to write the Foreword to this book.

We also faced the nightmare that comes from deciding on what must seem trivial matters. All things Chinese are cited and spelled in many different ways. No system is perfect, and the several "standard" orthographies all posed special problems. With some misgivings and an exception for the names of people and places under the jurisdiction of Taiwan, we have used standard pinyin and, for Chinese place-names and boundaries, the pinyin gazetteer in *Zhonghua Renmin Gongheguo*

Fen Sheng Dituji (Collection of Provincial Maps of the People's Republic of China; Beijing, 1983).

The result of our initial labors left an open field for gifted editors, mapmakers, proofreaders, manuscript preparers, and other heroines and heroes. We owe much to a great many. Here we especially wish to thank Barbara Mnookin of Stanford University Press and Miriam DeJongh of the International Strategic Institute at Stanford (ISIS) for their editorial assistance, which included but far surpassed putting the manuscript into shape. Rosemary Hamerton-Kelly, who thought she had other jobs at ISIS, helped on editing, proofreading, and managing the computer. So, too, did Justina Chau, whom we especially thank for digging out materials, typing, and preparing the maps for the cartographer. Anca Ruhlen, the ISIS librarian, made the unending search for references and special scientific materials a real adventure, and Alison Brysk provided important assistance in the early stages of our research.

The generous help that supported our research and writing came from many different sources. We wish to thank the Carnegie Corporation of New York, the William and Flora Hewlett Foundation, the Columbia Foundation, the General Service Foundation, and the John D. and Catherine T. MacArthur Foundation. A special word of appreciation also goes to Gerry Bowman, Marjorie Kiewit, Helen Morales, and Nancy Okimoto, each of whom helped in making this book a reality. We must add the obvious truth, of course, that we alone bear the responsibility for this volume, its faults as well as its ideas and judgments.

While completing this book, we incurred many debts. We have tried to acknowledge them even if we cannot truly repay them. For our wives who so wonderfully have sustained us during these many months, a special word of thanks: we dedicate this book to them.

John W. Lewis
Xue Litai

