



The Atomic Bomb and the

Origins of the Cold War

CAMPBELL CRAIG
SERGEY RADCHENKO

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Campbell Craig
Sergey Radchenko

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INTRODUCTION

The bomb that scientists in remote New Mexico labored feverishly to build, that illuminated the desert skies at the Trinity test site, that massacred thousands in Hiroshima and Nagasaki in a matter of seconds, and that has since morphed into a thermonuclear weapon capable of killing off civilization, plays a starring role in the political, cultural, and social history of the contemporary era—a period coterminous with history’s last great-power rivalry, the Cold War of 1945–91. When we think of the diplomatic history of that era, the bomb features as a blunt, fearsome tool: a brutal means of ending the Second World War, and then of deterring war between the United States and the Soviet Union. It was an object of statecraft, a grim means of pursuing national ends.

It was that, but we mean to suggest here that it also played a more active role. As the United States and the Soviet Union began to regard each other as potential rivals during the latter part of the Second World War and then the tense months afterward, the bomb—or, to put it more accurately, the implications of a war fought with it—had a kind of independent effect upon the attitudes of American and Russian leaders. It led American leaders such as Roosevelt and Truman to reconsider the notion that the United States would naturally lead the postwar world into an era of permanent peace. It led the Soviet leader Stalin to develop an acute fear for Russia’s postwar welfare, not so much because of what the Americans had done, or what they intended, but because of what they had. The miserable prospect of atomic war, made vivid by witnesses

to the destruction wrought at Hiroshima and Nagasaki, led many to demand that the nations of the world band together and form the international government necessary to prevent another world war that would surely doom civilization. Yet the shadow of the bomb pushed both the United States and the Soviet Union in the opposite direction. This irony underlies our story.

The history of the atomic bomb and the origins of the Cold War has been explored by many authors, to whom we will refer presently. By taking advantage of new documentation (especially on the Soviet side) and a willingness to explore new interpretations, we mean to provide a history that places the atomic bomb at the center of the emerging rivalry between the Soviet Union and the United States. As will become clear, we stress two factors that many recent histories eschew. First, we emphasize the parochial, inward nature of the two Cold War powers.¹ This is to say, we are consciously seeking to avoid writing an “international” history of the origins of the Cold War in which the reader is provided with a top-down account of American and Russian decision making, gaining access now to what Truman was thinking and now to Stalin’s response. The leader of each side was unaware of the other’s intentions, largely ignorant of the effects of his policies, operating as statesmen always do in conditions of darkness and misperception.² Readers of our book may conclude that the leading policy makers of the two nations were acting as if they were on different planets. This is the conclusion we hope they will reach.

Second, we discuss the one way that this blindness was overcome: the role of atomic espionage. Espionage, we argue, had two key effects upon the origins of the Cold War and the bomb’s central role in it. It provided a kind of communication between the two sides, telling Russia early on of the American project and informing the Americans that the Soviets knew. It served, in other words, as a kind of informal channel. Moreover, and more important, it exacerbated tensions between the two nations, not only because of its political explosiveness, though this was at times decisive, but also because it undermined the possibility of international atomic control, leaving the two sides with no plausible alternative to the old way of power politics. That is another irony that we wish to convey.

The United States

The role played by the atomic bomb in the foreign policy of the United States during the Second World War is the subject of a considerable amount of writing by historians of American foreign relations. Furthermore, government documentation related to this question has been available to scholars since the 1970s, and as far as we have been able to discover, relatively few important documents have been released since then on the matter of U.S. atomic policy from the beginnings of the Manhattan Project to the bombardment of Nagasaki. Therefore the narratives in chapters 1 and 3 of this book are based mainly upon secondary scholarship, though we do use primary documents for much of our citation, obtained from the Roosevelt and Truman presidential libraries and the National Archives. Of course, in both chapters we have put forward original conclusions about the bomb and American wartime foreign policy, but these are based upon our reinterpretation of existing primary documentation and contention with the extant literature rather than our discovery of substantial evidence not seen before.

For chapter 1, secondary sources we have consulted include chapter 1 of McGeorge Bundy's comprehensive history of the nuclear age, *Danger and Survival*; John Lewis Gaddis's pioneering account of the advent of American Cold war foreign policy, *The United States and the Origins of the Cold War, 1941-47*; Richard Rhodes's magnificent history *The Making of the Atomic Bomb*; and Warren Kimball's fine volume of essays on Roosevelt's wartime diplomacy, *The Juggler*. For U.S.-Anglo atomic relations, we have consulted Mark Stoler's *Allies in War*, Warren Kimball's *Forged in War* and Septimus Paul's *Nuclear Rivals*; and on Roosevelt's atomic policy generally, chapters 3-5 of Martin Sherwin's 1975 book *A World Destroyed*, which some thirty years after its publication has remained, in our view, the standard work on American atomic policy during the war.³ We arrive at some moderately different conclusions than does Sherwin, and focus on subtly different questions, but chapter 1 bears an intellectual debt to his book.

For chapter 3, we have relied particularly upon chapter 2 of Bundy, chapter 7 of Gaddis, and chapters 6-9 of Sherwin; Gar Alperovitz's up-

dated version of his famous work on American atomic diplomacy, *The Decision to Use the Atomic Bomb*; various writings by the dean of historians of the atomic bombardment of Japan, Barton Bernstein; J. Samuel Walker's extremely useful book *Prompt and Utter Destruction*; and Tsuyoshi Hasegawa's excellent history of the relations among the United States, the Soviet Union, and Japan leading up to Hiroshima, *Racing the Enemy*.⁴ In one sense, Hasegawa's main contribution to the literature is his treatment of Soviet and in particular Japanese foreign policies, issues outside this chapter's interest, but his analysis of American policy, and particularly the atomic diplomacy of James Byrnes, is extremely insightful.

The secondary source we have consulted the most for chapters 1 and 3 is a new book on the Truman administration's early foreign policy, Wilson Miscamble's *From Roosevelt to Truman*, which can be contrasted usefully with the present volume.⁵ Miscamble shows beyond refutation that the president had no coherent strategy with respect to the atomic bomb between April and July 1945—that he did not practice the kind of careful and ruthless atomic diplomacy that revisionist historians of the Truman administration, such as Gar Alperovitz and Robert Messer, sometimes imply.

In our view, however, Miscamble goes too far in attributing to the Truman administration only defensive, reactive motivations. As in other “orthodox” treatments of American foreign policy, the United States emerges from his book as a kind of ingenuous, even innocent, nation, its foreign policy wholly defined by a reluctant response to an ominous Soviet Union. Miscamble overlooks or downplays important aspects of American foreign policy during and immediately after the war. He does not investigate Anglo-American anti-Soviet wartime policies, for example, including the repeated postponement of the second front and the Anglo-American collusion and secrecy with respect to the atomic bomb. He does not mention the one clear instance of “atomic diplomacy” waged by Truman in his early months, the decision to postpone the Potsdam conference until the Trinity test was ready.

More broadly, Miscamble does not acknowledge the generally ambitious nature of American foreign policy at the end of the war. It was the

stated American objective to replace Great Britain as the world's core capitalist nation, a process that culminated in the Bretton Woods conference of 1944. The two American presidents did, as Miscamble puts it, regard the "collaboration of the major powers as the bedrock of a stable and peaceful postwar world order," but they conceived of this collaboration in American terms of global integration, an international order that the USSR could accept only at the risk of its economic and social system. As Averell Harriman, ambassador to the Soviet Union for both Roosevelt and Truman, put it, the goal was to get the Soviet Union to "play the international game with us in accordance with our standards."⁶

Miscamble rightly stresses the brutal nature of the Stalinist regime and the deep cynicism of its foreign policy, a combination, as he stresses, that manifested itself precisely in its evil behavior in Poland in 1944 and 1945. He is right to assert that the Polish question in particular gave Truman good reason to be wary of placing any degree of trust in a regime like that, and to criticize revisionist historians when they have sometimes seemed eager to play down Soviet brutality, portray the USSR as a victimized regime, or even on occasion morally equate Stalin's genocidal terrors with brutal American policies.⁷ It is possible, however, to argue that the Soviet Union was a malign regime and, at the same time, to point out that the United States had ambitions of its own. The two claims are not mutually exclusive.

America wanted to establish a world order on its terms rather than facing down the USSR and returning to the discredited system of international power politics. Roosevelt believed that this goal was possible, but he was unwilling to take the radical political steps necessary to achieve it. Truman, on the other hand, quickly concluded that this objective was impossible, and the role of the atomic bomb, and particularly of atomic espionage, ironically hastened this decision. In chapter 5, we develop an original account and explanation of American foreign policy and the bomb from August 1945 to the end of 1946. The originality of the story here comes from fairly new evidence on atomic espionage and a thorough investigation of the Baruch papers at Princeton's Mudd Library, as well as the fact that there has been much less writing about this subject than it deserves—many standard histories of Truman adminis-

tration foreign policy do not examine espionage or the Baruch Plan closely.⁸

The main study of early Truman administration atomic policy remains Gregg Herken's *The Winning Weapon*, which, as we argue at greater length in the chapter, is excellent on later atomic policies but pays insufficient attention to the effect of espionage upon Truman's early decision making and puts forward an interpretation of the Baruch Plan that we believe is incorrect.⁹ On the question of atomic espionage, many books have appeared over the past decade or so: the ones we have consulted include Amy Knight's *How the Cold War Began*, Sam Roberts's *The Brother*, Allen Weinstein and Alexander Vassiliev's *The Haunted Wood*, John Earl Haynes and Harvey Klehr's *Venona*, Richard Rhodes's *Dark Sun*, and especially Katherine Sibley's fine study *Red Spies in America*.¹⁰ None of these works, however, examines Truman administration foreign policy as a whole; they deal more with the politics of espionage on the ground, where one can find many fascinating stories indeed, than with the effect of espionage upon the making of high atomic policy at the outset of the Cold War. A good part of chapter 5 is an attempt to study that effect, a task complicated, as we show, by the tremendous secrecy imposed by Truman and his aides on the issue of atomic espionage.

A final consideration, in introducing our book's relevance to the history of American foreign policy, is also the most contentious: the U.S. role in the origins of the Cold War. The debate among scholars about America's responsibility for initiating this conflict has been fierce and polarized. One school of thought, represented most recently by Wilson Miscamble, has argued that the United States responded to a real Soviet threat to its security in the immediate postwar period, a threat rendered more dire by the brutal, totalitarian nature of Stalin's USSR. The American role in the Cold War was defensive: it was based upon a fear of this Soviet power. Another school of thought maintains, quite on the contrary, that it was the United States that started the confrontation. Such "revisionist" scholars as Walter LaFeber and (more recently) Christopher Layne contend that the United States sought, during and after the war, to project its power in Europe and Asia, so as to establish economic control over these areas. It was (and is) the underlying objective of U.S. for-

eign policy to control the markets and resources of as much of the world as possible, and after 1945 the Soviet Union stood in the way of such expansion. The American role in the Cold War was offensive—it had nothing fundamentally to do with a Soviet threat to American security.¹¹

We respond to this debate in two ways. First, we argue that the United States was responsible, in a key sense, for initiating what we know as the Cold War. From 1943 through the end of 1945, American leaders did not fear Soviet power, and they did not concern themselves greatly with the brutal nature of the Soviet Union. At the same time, however, both the Roosevelt and Truman administrations expressed a clear and fairly coherent interest in establishing a new world order that would reflect American institutions and interests. The mentality of American foreign policy at the dawn of the Cold War was not defensive: once Germany and Japan were as good as defeated American policy makers worked to shape a postwar world of free markets, national sovereignties, and open borders. This was not done out of fear.

However, both Roosevelt and, to a lesser extent, Truman, envisioned this new world order in a more idealistic and progressive sense than is normally argued by revisionist historians. They believed that the United States should shape the postwar world because its civilization was superior to the defunct European order that had just unleashed two catastrophic world wars in the space of a generation. Fundamentally, this objective was not economic but ideological. The planet needed a new system, and the American one was the best candidate. This was Roosevelt's core belief. Roosevelt also believed, incorrectly and naively, that the Soviet Union could somehow be incorporated into the American new world order, by means of political persuasion and negotiation. He, and then to a much greater extent Truman, discovered that the Soviet Union was uninterested in playing by American rules. It was this discovery that spawned U.S.-Soviet confrontation.

These deeper antagonisms that triggered the Cold War underlie the pages that follow. But we concentrate upon the political implications of the atomic bomb in hastening and intensifying the U.S.-Soviet confrontation. We argue that the prospect, and then reality, of the atomic bomb had three decisive effects upon American foreign policy. First, it

encouraged Roosevelt and Truman to adopt an uncompromising position with respect to the Soviet Union, in the mistaken belief that the Russians would accede to an American preponderance highlighted by its monopoly over the atomic bomb. Second, the revelations of atomic espionage made open cooperation with the Soviet Union, especially on atomic issues, a matter of domestic political suicide for Truman in late 1945 and early 1946. Gregg Herken argues that the Truman administration used atomic espionage as a justification for adopting a hard line against the Russians; we contend that in key respects the reverse was true. Third, we show that the unique dangers raised by the atomic bomb led Truman and his advisers to conclude that genuine collaboration with the Soviet Union, even if it were politically possible, had become too difficult to pursue. American leaders resigned themselves early to a bipolar confrontation with the Russians, earlier than they would have done had there been no such thing as an atomic bomb.

The Soviet Union

The debut of the atomic bomb in 1945 met with a muted Soviet reaction. Until the Cold War's end, to the extent that there was a historiography of the bomb's impact on the Soviet foreign policy, it was entirely a Western scholarly enterprise based on fragmentary evidence and speculation about Soviet intentions. This lamentable state of affairs is entirely understandable: Soviet archives were inaccessible to foreign researchers, and blatant government propaganda offered little evidence for making authoritative conclusions about the nature of Soviet foreign policy, much less about as sensitive an area as the Soviet reaction to the atomic bomb. Indeed, the only evidence of Stalin's atomic diplomacy available to scholars for many years had been sporadic public pronouncements on the subject by Stalin himself, but these pronouncements were so rare and so wanting in detail that they hardly sufficed to support any conclusions about Soviet policy making, in particular because such pronouncements served Stalin's propaganda purposes rather than indicating what Stalin really thought.

This evidence—if indeed, it deserves such a generous term—comes

down to only four rather ambiguous statements by Stalin: to the *Sunday Times* journalist Alexander Werth on September 17, 1946, to Hugh Bailie of the *United Press* on October 26, 1946, to Elliot Roosevelt in December of that year, and to the U.S. presidential candidate Harold Stassen in an interview on April 9, 1947. In all of these interviews, which were published in the West and in the Soviet Union, Stalin downplayed the importance of the atomic bomb and called for its international control. Going beyond propaganda in search for answers to Soviet policy making in the 1940s was inherently difficult. Soviet nuclear exploits—political and technical angles of the A-bomb program—were hidden behind an impenetrable veil of secrecy. The dearth of primary source materials made it difficult to analyze the interplay between policy making and bomb making in the Soviet Union and comfortably build a case on something more than unclear hints and sheer speculation.

Despite the difficulties involved, David Holloway presented a detailed study of the Soviet nuclear program in the 1983 book *The Soviet Union and the Arms Race*. Holloway combed obscure sources for details of the Soviet atomic project and drew interesting conclusions about Stalin's views on the atomic bomb, which he summarized thus: "Stalin may have thought that, important though the atomic bomb was, it would not change the character of warfare. He launched major programs to develop the atomic bomb and other modern weapons, but he did not permit any thought to be given to their effect on the conduct of war."¹² Many new details have come to light since Holloway's pioneering book, but it is fair to say that his conclusion about Stalin's policy stands the test of time, and it is supported by the findings of this book, although we otherwise disagree with Holloway on a number of important details.

The end of the Cold War eased scholarly access to the Russian archives, and even more so to the Russian participants in the atomic race—from physicists to intelligence officers. As a result, a surge of publication in the early 1990s—in Russia and in the West—focused on the building of the Soviet bomb. Divergent accounts of the bomb's making immediately caused a controversy. Russian foreign intelligence archives selectively released documents on the project Enormoz—Soviet espionage in the Manhattan Project. These documents were handed over to a scientific

journal, *Voprosy Nauki i Estestvoznaniia Tekhniki*, but their publication unnerved the authorities, and the journal was pulled from the shelf. Among others, Iulii Khariton, the designer of the Soviet A-bomb, opposed the release of the intelligence materials—on the ground that their dissemination would contravene the Nuclear Nonproliferation Treaty.¹³

But intelligence reports were irreversibly in the public domain. So were commentaries by former intelligence officers, scientists, historians, and journalists. Among the most eager commentators on the role of espionage in the Soviet bomb effort was Vladimir Chikov, a former KGB colonel, who beginning in 1991 published articles under titles like “How Soviet Intelligence ‘Split’ the American Atom” and “From Los Alamos to Moscow.”¹⁴ Chikov’s account raised the profile of Soviet intelligence, and the leaked documents gave his otherwise problematic scholarship an appearance of credibility. Subsequently Chikov published detailed studies of the Soviet espionage effort, citing the KGB’s atomic dossier.¹⁵ The books had wide circulation in Russia (foreign editions appeared as well), and became a must-read for many fans of atomic espionage.¹⁶ Chikov’s work, however, has a fundamental shortcoming, from a historian’s viewpoint: it lacks any footnotes and mixes apparent intelligence documents with invented dialogues and pure conjecture.

Another Soviet state security veteran, Pavel Sudoplatov, also addressed the issue of atomic espionage in his widely read memoirs published in 1994.¹⁷ Sudoplatov, prominently placed within the Soviet Interior Ministry in the mid-1940s, was at one time well informed about the Soviet intelligence operations in the West. He made a claim that key participants in the Manhattan Project—Robert Oppenheimer, Enrico Fermi, Leo Szilard, and Niels Bohr—were in fact Soviet “atomic spies.”¹⁸ Sudoplatov’s allegations met with bitter and spirited criticism in the *Bulletin of Atomic Scientists* and the *Cold War International History Project Bulletin*.¹⁹ In the 1997 Russian edition of *Special Tasks* Sudoplatov accused his critics of misrepresenting his ideas: Oppenheimer and the others were not actually spies, he wrote, but he still maintained that they had willingly assisted Soviet intelligence.²⁰

In 1995–97, partly as a result of the escalating controversy over Soviet espionage in the Manhattan Project, and partly for unrelated reasons,

the U.S. National Security Agency released to the public Soviet ciphers from the 1940s, decrypted by NSA analysts in the context of the top secret Venona project. Among the thousands of pages of decrypted ciphers were cables exchanged between Moscow and field intelligence stations in the United States and other countries. The Venona files inspired several books on Soviet espionage, of which the best known is probably the 1999 book by John Earl Haynes and Harvey Klehr, *Venona: Decoding Soviet Espionage in America*.²¹ The book offers an extensive overview of the Soviet intelligence network in the United States and includes one chapter that deals specifically with atomic espionage.

For all the remaining uncertainties about Soviet atomic espionage, the story has been told extensively. But it is a story that is not very helpful for the purposes of this book: the well-documented existence of Soviet atomic espionage on American soil does not by itself explain how the bomb figured in Stalin's diplomacy, either before or after 1945, though it does show that Stalin knew much more about the bomb than his World War II allies were willing to tell him.

In the early 1990s scientists of the Soviet atomic project emerged from their secret laboratories to claim back the credit for the making of the Soviet bomb from the intelligence veterans. For example, Iulii Khariton and Iurii Smirnov argued that the intelligence materials from Los Alamos, while helpful, could not replace efforts by the Soviet scientists. Their research—based on personal recollections, interviews with key participants (Khariton, as the designer of the first A-bomb was *the* key participant), and a number of hitherto inaccessible documents from obscure archives—contains valuable and intricate detail of the early years of the Soviet bomb.²² In 1995 Armazas-16 (the Russian counterpart to Los Alamos) published the first in-depth history of the Soviet atomic project under the same title.²³ This persuasive and well-referenced study, written from the perspective of we-did-it-ourselves veterans of nuclear science, documents the Soviet path to the bomb. The reader walks away with a comprehensive understanding of just how the scientists and the bureaucrats managed the Soviet bomb effort on a day-to-day basis. Therefore *Sovetskii Atomnyi Proekt* works better as a technical history of the bomb than as an account of Stalin's political calculations.

By the mid-1990s heated debates about the history of the Soviet atomic project had spilled over from Russian newspaper articles and periodicals to inform Western audiences. Selected documents were translated and published in the *Cold War International History Project Bulletin* in the fall of 1994; these included, for example, an important document furnished by Iurii Smirnov—Igor Kurchatov’s handwritten notes of a meeting with Stalin in January 1946.²⁴ This document’s importance is underscored by the fact that despite the declassification of a sea of archival documents in Russia in the early 1990s, our understanding of Stalin’s involvement in the atomic project remained murky at best. Kurchatov’s account—though fragmentary and mistranslated—was about the first evidence in the West of Stalin’s views of the bomb since his pronouncements of half a century earlier.

In 1994 David Holloway published the groundbreaking *Stalin and the Bomb*.²⁵ Unsurpassed in the West or Russia in its comprehensive scope and attention to detail, *Stalin and the Bomb* is a history of Soviet nuclear science, the atomic project, and, more than any other contemporary study, Soviet atomic diplomacy. Holloway gives Stalin low points for foresight: despite the council of his scientists and excellent intelligence on the Manhattan Project, Stalin procrastinated until the United States had actually used the bomb in Japan before authorizing full-scale atomic works in Russia. Holloway finds Stalin responsible for the breakdown of Allied cooperation after the war. His postwar expansionism made confrontation with the United States inevitable, irrespective of the bomb. As in his earlier book, Holloway argues that the bomb did not change Stalin’s outlook on the world; before and after Hiroshima he was convinced of the inevitability of war, and he was skeptical of the bomb’s potential use as a weapon (quite aside from its value as a political tool). In the end, Holloway rates Stalin’s foreign policy in the atomic age as nothing short of a disaster.

Another important work on the Soviet atomic project was published in 1995 by a heavyweight of atomic history, Richard Rhodes. *Dark Sun: The Making of the Hydrogen Bomb*, as the title indicates, takes a broader sweep than Holloway’s book, but Rhodes goes into considerable detail about the origins of Stalin’s bomb effort, wonderfully integrating the

story of the atomic espionage with the technical history of the Soviet A-bomb. Rhodes makes a little more of Stalin's spirit of accommodation with the West than does Holloway. He also convincingly argues that Soviet espionage contributed significantly to the Soviet bomb effort.²⁶

In 1997 Holloway's book was translated into Russian, where it joined the growing volume of literature on the Soviet atomic project. The most important development here, unquestionably, was the publication of a multivolume collection of documents, *Atomnyi Proekt SSSR*. Seven volumes of this mammoth series have emerged since 1998, each adding hundreds of hitherto unknown archival pages to the story of the making of the A-bomb. These documents—correspondence between scientists and bureaucrats, government orders, reports on the state of the atomic project, and even intelligence materials—provide minute detail about bomb making. For example, one volume reprints resolutions of the State Council of Defense, the highest executive power at the time of war, concerning the atomic problem. Another contains the much-anticipated protocols of the sessions of the Special Committee under Lavrentii Beria, charged with the day-to-day oversight of the project. Regrettably, these documents show only what decisions were made about the bomb, not how they were made.

And again, despite the wealth of materials, many of which come from the coveted holdings of the Archive of the President (accessible only to researchers with special connections), the top level of policy making on the atomic problem is conspicuously absent from the volumes. One wonders whether all the relevant materials have been declassified. Perhaps some key policy documents remain unknown to the researchers in the Archive of the President, noted for its lack of transparency and arbitrary declassification procedures. If, indeed, the volumes of the *Atomnyi Proekt SSSR* tell us all that there is to be told about atomic policy making, we may never have a full picture of Stalin's role in the creation of the Soviet bomb. Even so, these seven volumes enrich our understanding of the Soviet atomic project beyond expectations. Eager historians have already used these exceptionally interesting volumes in publishing histories of the atomic project.²⁷

There is much less to boast of when it comes to new Russian literature

on atomic diplomacy. Russian translation of Holloway's book is about as strong as the Russian historiography gets on this subject. In-depth studies of the A-bomb effort either overlook the bomb's implications for the Soviet foreign policy or offer unhelpful generalizations. On the other hand, Stalin's atomic diplomacy finds excellent treatment in recent publication by Vladislav Zubok, a preeminent scholar of Soviet foreign policy.²⁸ Zubok puts emphasis on Stalin's assertiveness in the face of what he perceived as the U.S. "atomic blackmail." He argues that for Stalin, Hiroshima became a watershed that symbolized the beginning of an inevitable confrontation between the East and the West. As for the international control of atomic energy, Zubok is skeptical: "Stalin was ready to thwart the Baruch Plan long before it was announced."²⁹

The theme of international control also comes up in a piece by Vladimir Batiuk on the Soviet response to the Baruch Plan. This response, we learn, showed considerably more initiative and flexibility on the part of the Soviet delegates to the U.N. Atomic Energy Commission than one could allow for in a Stalinist state.³⁰ More fragmentary discussion of the Soviet take on the A-bomb appears in Viktor Malkov's book on the Manhattan Project.³¹ The book is an original, well-researched account by a Russian author of an episode in American history; Soviet atomic policies are barely addressed in Malkov's study. Nevertheless, he documents disagreements inside the Soviet Foreign Ministry on the question of international control.

Several authors have addressed Stalin's atomic diplomacy in the context of broader studies of Soviet foreign policy. Among others, Vladislav Zubok and Constantine Pleshakov in their best-seller *Inside the Kremlin's Cold War* show how Hiroshima shattered Stalin's postwar plans; the United States could no longer be expected to return to isolationism. Nor did this matter—the bomb gave Washington a global reach, infringing upon Stalin's perceived gains in Europe and Asia. Vladimir Pechatnov argues that Stalin felt betrayed by Washington's apparent departure from the Yalta agreements, inasmuch as the Americans refused to recognize Soviet-sponsored governments in Romania and Bulgaria and cheated the Soviets out of their fair share in the occupation of Japan, not to mention U.S. opposition to a Soviet presence in the Mediterranean. Stalin's con-

frontational attitude was therefore a reaction to American arrogance in foreign affairs.³²

The Soviet side of the story, as we shall see, fits nicely within the existing historiography, drawing on what other authors have written but also diverging from many of their conclusions. Stalin is portrayed not as a relentless expansionist but as a cautious realist, willing to measure his appetites in Europe and Asia if in turn the United States would sign up to his vision of a postwar order based on great-power equality. Here, our interpretation tilts more toward arguments advanced by Richard Rhodes than those of David Holloway. Yet unlike Rhodes, we do not see February 1946 as a turning point on Stalin's road to the Cold War. In fact, Stalin's policy in the final months of World War II and in the early postwar period retained a basic consistency and did not make any sharp turns.

Nevertheless, the atomic bomb undermined Stalin's postwar vision at two levels. First, the very fact that the United States had the bomb and the Soviet Union did not undermined the Soviet Union's great power claims and in fact relegated it to the ranks of technologically backward, second-rate powers. This brutal reminder of Soviet inferiority cast a shadow over Stalin's triumph in the war, which he believed had demonstrated the advantages of Soviet socialism. American monopoly on the bomb created inequality in Soviet-U.S. relations, chipping away at Stalin's hopes for an equitable international order. The psychological balance was restored in August 1949, but by then the Cold War was in full swing and Moscow's early postwar schemes had been long laid to rest.

Although U.S. atomic monopoly in principle spelled trouble for Stalin's postwar plans, it did not make them irrelevant. Indeed, after the Trinity test, and after Hiroshima, Stalin continued to peddle great-power cooperation and was not averse to a compromise with the United States in return for Washington's recognition of Soviet interests. For one, Stalin downplayed the practical significance of the bomb (quite apart from its application as a tool of diplomatic pressure). Here we disagree with both Holloway's and Zubok's assessments to the effect that Stalin was complacent before Hiroshima but realized the significance of the bomb afterward. Both before and after Hiroshima, Stalin maintained that the

bomb could not win wars. He also believed that Washington had run out of steam in World War II and would not pose an immediate threat to the Soviet Union for some years.

On the other hand, Stalin feared that the atomic bomb would make U.S. foreign policy more assertive, more hegemonic and disinclined toward compromise with the Soviet Union. Just as Roosevelt hoped that he could use the bomb to force Stalin to embrace his version of a post-war order, so Stalin worried that the Americans might do just that—use the A-bomb as a policy tool to force him to make concessions. Truman's effort to stand ground in the face of what was perceived in Washington as Soviet expansionism unnerved Stalin, who invariably interpreted these efforts as manifestations of great power arrogance, as evidence that the Americans would not speak to the Soviet Union on equal terms. Soviet response to this perceived blackmail was a show of resolve in facing the U.S. challenge. As we show in chapters 4 and 6, from the London conference of foreign ministers in September 1945 to the Gromyko plan to ban atomic weapons in June 1946, the Soviets aimed at countering perceived U.S. pressure with a display of obstinacy.

The Baruch Plan clearly intensified Soviet apprehension of the U.S. atomic monopoly, for, as seen from Moscow, the plan was aimed at the perpetuation of this monopoly at Soviet expense. For our detailed examination of Soviet response to the Baruch Plan, we have relied on the recently declassified holdings of the Russian Foreign Policy Archive (AVPRF), which reflect discussions of the Soviet policy on international control within the Foreign Ministry bureaucracy. These documents have both advantages and disadvantages. One advantage is that they allow a close-up examination of the mechanism of Soviet atomic diplomacy and thus expose the real motives behind Soviet initiatives in the realm of international control of atomic energy. A downside of these documents is that the Foreign Ministry did not determine the Soviet foreign policy. This determination was made by Stalin alone, and it is often not clear to what extent Stalin's decisions were influenced, or even informed, by what the Foreign Ministry had to say. In other words, unclear hints and sheer speculation, characteristic of earlier Western studies of the Soviet bomb efforts, cannot be entirely eradicated from this study; suffice it to say that

new evidence allows us to pin down the nature of Soviet atomic diplomacy with much greater certainty than before.

In the following chapters we show that the Soviet Union was never interested in genuine international control of atomic energy, and that participation in the U.N. Atomic Energy Commission was at best a propaganda cover for the Soviet bomb effort. Was the project of international control of atomic energy doomed to failure from the outset? We explore alternative Soviet responses. For example, there is evidence that the Soviet negotiators were considering more flexible tactics to outmaneuver Baruch and his team in the propaganda war. These tactics included agreement to some of the principles put forward in the Baruch Plan, such as Soviet approval of some forms of inspection of national atomic programs. Yet because of bureaucratic inertia in Moscow, these suggestions were never developed into a coherent policy. At any rate, policy deliberations on the Soviet side concerned the most appropriate tactics, while the overall strategy—boycotting international control—never came into question.

One of the key themes explored in this book is how the bomb figured in the origins in the Cold War. That is to say, would the Cold War have happened even without the bomb? The Russian side of the story suggests that Stalin's postwar goals were essentially incompatible with the ideas nurtured by Roosevelt and eventually abandoned by Truman—the ideas of a liberal international order. Stalin embraced *realpolitik* and did not understand international government in the same way as Roosevelt did. The Soviet take on the international government was that it was never anything more than power politics by other means. But power politics did not necessarily mean that a confrontation was inevitable. Other things being equal, power politics can become almost an agreeable affair, as Stalin expected at first. The bomb blew away this image of stability, already complicated by mistrust and misperceptions on both sides.

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**THE ATOMIC BOMB AND
THE ORIGINS OF THE COLD WAR**

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1

FRANKLIN DELANO ROOSEVELT AND ATOMIC WARTIME DIPLOMACY

In November 1940, the month in which President Franklin Roosevelt was reelected to the White House for an unprecedented third term, Nazi Germany and Imperial Japan were imposing brutal imperial conquest throughout Western Europe and East Asia. Japan had by this time conquered much of coastal China, and was threatening European colonies farther to the south. More ominous were Germany's rapid victories in Scandinavia and the Low Countries, and then its six-week defeat of France in June. By the end of 1940 Hitler effectively controlled Europe from the Atlantic to the Oder. He had alongside of that an alliance with Japan, Italy, and several Balkan States, fifth columns in every other European country, and a nonaggression pact with the remaining continental power, the Soviet Union. By the end of that year, in other words, it was not fanciful for an American to consider that a powerful alliance was coming into being that would unstoppably dominate the whole of the Eurasian continent—a domination that the United States' only major unbeaten friend, Great Britain, could never withstand by itself.

Apart from the acute nuclear crises of the late 1950s and early 1960s, the United States has never faced a more dangerous international situation than it did in 1940 and 1941. Yet both President Roosevelt and his Republican challenger Wendell Willkie went to extreme lengths in the election campaign of that year to assure the American people that the United States would not enter the war. Polls taken during these two years

reveal an American public consistently and firmly opposed to military intervention in Europe (not to mention Asia); most American congressmen and senators, following this lead, agreed.

The American public and its representatives in Washington opposed intervention naturally because they believed in the long-standing U.S. policy of isolation from European great-power politics. The United States had sought to avoid contending with the world's serious military powers since the early nineteenth century, not out of timidity or ignorance but because Americans understood that the Atlantic and Pacific oceans, together with the continuation of the European balance-of-power system, provided them with a "free security" from foreign conquest. The great departure from this policy—the American intervention into the First World War engineered by President Woodrow Wilson—was regarded by most Americans as late as 1941 as a disaster that must not be repeated. Determined to prevent another ill-fated foray into European war, most American leaders and intellectuals, as well as the wider public, adamantly opposed U.S. involvement in the Second World War even as Germany and Japan consolidated their conquests over Western Europe and East Asia.¹

Roosevelt publicly affirmed this position of American neutrality in the 1940 campaign, but following his reelection in November he moved decisively toward a policy of active support for Great Britain, Germany's last remaining rival in Europe, and of confrontation with Japan. He did so because he believed that the United States must enter the war; for Roosevelt, it was simply a matter of somehow persuading the American public and neutralist politicians in Washington to accept his point of view.

Roosevelt believed that the United States must not repeat the errors made by Wilson during and after the First World War. Wilson had erred in failing to persuade the American public to enter the European war until late in the contest. This prevented him from getting his way at the Paris peace talks in 1918 and 1919, where Wilson famously demanded the establishment of a new world order shaped by the adoption of American-style open international markets and the abolition of the European balance-of-power system but was unable to persuade or coerce the European powers to accept it. Roosevelt would not make this mistake. The United

States must get involved early in the Second World War, using its latent economic and military capabilities to become the war's most powerful belligerent. The United States must use its dominant position in the war to force upon the other great powers a new world order shaped by Wilsonian principles. Wilson, having entered the war late, and having relied at Paris upon moral suasion rather than preponderant power, had failed. Roosevelt would succeed.²

The president's conception of this new world order evolved during the war, as did so many of his subsidiary foreign policies. The "Atlantic Charter" he announced with Winston Churchill, the British prime minister, emphasized self-determination for all peoples, even perhaps those chafing under British imperialism. In his discussions with Churchill and Stalin, Roosevelt liked to stress the idea of the "four policemen," the United States, Great Britain, the Soviet Union, and China, cooperating to quell regional conflict and restoring sovereignty to subjugated peoples.

Yet the centerpiece of Roosevelt's conception of a new postwar order during the early years of the war was, as it had been for Wilson, the dream of economic integration and worldwide free markets: the "open door." The open door was in the financial self-interest of the United States, which was poised at the middle of the twentieth century to become the new hub of global capitalism. An open trading system would particularly benefit American companies seeking markets and resources in erstwhile European colonies.³ More important to Roosevelt, perhaps, an open world economy could prevent the recurrence of the economic nationalisms and autarkies that had intensified international rivalries and impoverished Western societies during the 1930s. Indeed, the deep connections between the Great Depression and the rise of militaristic fascism in Europe and Asia proved to many in the West that a new world order depended upon economic integration and cooperation. As Akira Iriye has stated, a United Nations organization based upon great-power collaboration "would mean little unless it were supported by economic underpinnings."⁴ How could great powers cooperate on core political issues when they were divided into competitive economic blocs? Roosevelt intertwined economic and political openness: he wanted, as Lloyd Gardner and Warren Kimball put it, a world

“to be left open to commerce of all kinds—goods, people, ideas, and information.”⁵

Roosevelt remained committed during the war to the twin goals of international organization and a liberal world economy. He believed that a United States in a position of preponderant power at the end of the war could impose these frameworks on a beaten world and, this time, genuinely make the Second World War a war to end all wars. What he could not predict, in 1940, was the arising of two factors that would destroy this dream: the making of the atomic bomb, and the emergence of the Soviet Union as a rival world power.

The Beginnings of the Manhattan Project

In late 1939, a few weeks after the outbreak of the war, a group of scientists, led by the émigrés Leo Szilard and Albert Einstein, persuaded the financier Alexander Sachs to convey to Roosevelt a letter informing him that it might well be possible in the near future to split an atom for the purposes of unprecedented destructive power.⁶ The letter also made it very clear to Roosevelt that the Nazi regime was itself engaged in such a project. An atomic weapon might prove decisive in the ongoing war; were Germany to build one first, the Nazi regime might be able to force the United States to choose between a horrible attack on its eastern cities or submission to German preponderance. Roosevelt knew that he could get no serious support for such a project in 1939 or early 1940. Following the rapid victories by Japan and Germany in 1940, however, and then his reelection in November, the Roosevelt administration authorized a project to develop atomic weaponry—the Manhattan Project—that would gather much greater urgency and infinitely more resources following the Japanese attack on Pearl Harbor in December 1941.⁷

Nevertheless, the effect of the early bomb project upon American diplomacy during the first year of the war was minimal. This was so because until late 1942, Roosevelt and his main foreign policy advisers—most notably Henry Stimson, the secretary of war; George Marshall, the chief of staff of the U.S. armed forces; and Harry Hopkins, the White House chief of staff and FDR’s right-hand man—could neither

count on the successful development of the bomb nor have any clear idea about the political situation in which it might be used. General Leslie Groves, head of the Manhattan Project, had by early 1942 only begun to organize the nationwide effort to build a workable bomb; at this time he could not promise Washington anything beyond a long-term and sustained scientific enterprise.⁸ Even if the project were to be successful, Roosevelt could not know in 1942 how he might eventually use it. Would the bomb be used against Germany, the original premise for building it? Against whom else might it be threatened? Until late that year the German invasion of Russia had been so overwhelmingly successful that a Nazi domination of the Eurasian continent appeared a likely prospect. Both Roosevelt's military advisers and the Soviet dictator Joseph Stalin clamored for a second-front invasion of the European continent as soon as possible, but the British and their wartime leader Winston Churchill rejected that idea, a decision that Roosevelt for the moment accepted. The Japanese bid to expand its Pacific empire further eastward, on the other hand, had been thwarted by the American naval victory at Midway that summer. Insofar as Roosevelt could guess, the American bomb might serve as a deterrent against a victorious Nazi regime aiming to spread its empire to the Western Hemisphere, or perhaps as a weapon of war in a bloody Anglo-American campaign to liberate Europe.

For three central reasons, in late 1942 and early 1943 the picture became much clearer. First, by the end of 1942 General Groves had succeeded in establishing a facility at Los Alamos, New Mexico, where efforts would be concentrated and intensified to build a bomb as soon as possible. At the time of Pearl Harbor, the atomic project was dispersed among several production facilities and universities. A year later, the government had managed to gather together America's best scientists, along with several from other nations, and transport them to the remote and top secret New Mexico location, where they would work nonstop under the direction of J. Robert Oppenheimer for the next thirty months. That the project would indeed produce a workable weapon was not certain; nor did anyone know how long it would take. But Groves, Oppenheimer, and Roosevelt's point men on the atomic project in Washington, Direc-

tor of the Office of Scientific Research and Development Vannevar Bush and Chairman of the National Research Council James Conant, began to communicate to the White House by the beginning of 1943 the consistent message that a bomb would probably be built.⁹

Second, Roosevelt could see that the danger that Hitler might build an atomic bomb before the United States was diminishing markedly after 1942.¹⁰ The stunning reversal of the Nazi invasion of Russia by Soviet armies near Stalingrad in December and January not only put an end to the possibility of a rapid German conquest of the Eurasian continent; it also forced the Nazi regime to focus its efforts primarily upon resisting the Russian counterattack. This drained men, money, and urgency from the German atomic program; it also provided the American and British air forces with greater opportunity to bombard German industrial targets, including, of course, suspected atomic facilities. Had Germany defeated Russia in late 1942 and been able to wind down operations on its eastern front, it could have devoted massive resources and energy toward the building of a bomb and the repelling of American and British bombardment. As it happened, the Nazi regime put its atomic program on hold in late 1942, a decision that was reinforced by the successful British bombardment of a Nazi-controlled heavy water facility in northern Norway in March 1943, and then again in November.¹¹ Of course, American and British leaders were unaware of the German decision, and they could not be absolutely certain that the German project was dead until late 1944. General Groves worried about a German bomb until the Nazi regime surrendered. But after the Norwegian operation, serious fears of the prospect of the Nazis getting the bomb first were becoming untenable.¹²

Third, and of final importance, by the time he met with Churchill in North Africa in January 1943, Roosevelt could conceive of a likely postwar international order with a precision unobtainable even six months earlier. The Red Army's ongoing resistance in the battle of Stalingrad allowed Roosevelt and Churchill to recognize that Germany's aim of a quick victory over the USSR and hence an imminent domination of the Eurasian continent was less likely to transpire.¹³ They understood now that they would have some time to enter the European war, and that once American and British armies entered the European conflict, the Nazi regime

would be materially outnumbered on both its western and eastern fronts. Indeed, as both Churchill and Roosevelt noted, a possibility now existed that the Soviet Union could eventually dominate the Eurasian landmass. To be sure, the war was not over. But an Allied victory in Europe was now a likelihood, something to be planned for, which was precisely what the American and British leaders began to do in talks at Casablanca.¹⁴

There Roosevelt discovered a different kind of British ally than the one with whom he had so famously corresponded and strategized since 1940. Churchill had long contended that the best Anglo-American strategy to defeat Nazi Germany was to attack it indirectly, via the European “underbelly” in Italy and the Balkan States, with the aim of waging a long and peripheral war rather than a head-on confrontation with a Germany consolidated on the Continent. This had led to the American decision, taken against the wishes of the U.S. military establishment, to begin its European military operations in North Africa and the Italian peninsula.¹⁵ Now that the Russians had turned back the Wehrmacht, Roosevelt suggested that that it was time to begin the real part of the war, to launch the second-front invasion of France that was necessary to dislodge Hitler and defeat Germany unconditionally.

Churchill’s demurral, his insistence that the second front be delayed for another year, led Roosevelt correctly to conclude that the British leader was more interested in preserving a British imperial presence around the Mediterranean and avoiding a bloody replay of the First World War than he was of joining the battle and defeating Hitler as soon as possible.¹⁶ Both were fundamental British objectives, but the former interfered with American plans. To deal with this conflict of interest, Roosevelt gradually began to use the diplomatic leverage provided by the American atomic project against his closest ally, Great Britain.

Atomic Diplomacy and Great Britain: June 1942–September 1944

In June 1942 Churchill met with Roosevelt at the latter’s estate in Hyde Park, New York. As remained the case throughout the war, their discussions about the atomic project—“Tube Alloys” was a British code

name they often used—were brief, personal, and held under the most secret conditions.¹⁷ Churchill regarded the project as a joint Anglo-American enterprise, located for obvious geographical purposes in America but partaking of British scientific expertise: much of the basic science leading toward Tube Alloys, after all, had taken place in Britain, beginning with the initial research of the New Zealander Lord Rutherford at the University of Manchester around the turn of the century.¹⁸

In the early days of American participation in the war, Roosevelt deferred to Churchill's wishes. According to the prime minister's memoirs, he and the president agreed to build the bomb in the United States but regard it as a joint project, a decision affirmed in a letter from Sir John Anderson, Churchill's senior adviser on the atomic project, to Vannevar Bush in August.¹⁹ Anderson proposed developing a joint nuclear energy commission that could establish an Anglo-American monopoly over atomic energy production, and to coordinate a mutual policy for controlling atomic weaponry after the war.²⁰

Secretary of War Stimson, alarmed by this news, sought to persuade Roosevelt to rethink this position in October, reminding him that the United States was doing 90 percent of the work on the bomb.²¹ Conant met with the British envoy Wallace Akers in November and informed him that the United States would restrict scientific interchange on the atomic project, releasing to the British only the information relevant to their own research connected with the Manhattan effort, and nothing to do with postwar energy uses or other operations in which the British were not involved.²² When Bush and Conant learned that the British had in September 1942 signed an agreement with the Soviet Union to share atomic technologies, they became even more determined to keep the British out as much as possible.²³

At Casablanca, Roosevelt and Churchill confined themselves to other military and diplomatic questions, choosing not to resolve the thorny but not urgent matter of atomic cooperation. Upon his return to Britain, however, Churchill began to seek assurance from the Americans that the project would indeed remain under joint Anglo-American control, as Roosevelt had promised him at Hyde Park. On February 16 the prime minister wrote Harry Hopkins, complaining that "the American War De-

partment is asking us to keep them informed of our experiments while refusing altogether any information about theirs.”²⁴ Hopkins replied a week later, on February 24, demanding that Churchill instruct Lord Anderson to send copies of “the original memoranda or any references or conversations which form the basis of the misunderstanding,” and insisting that “our people feel that there has been no breach of agreement.”²⁵ This was an interesting, not to say infuriating, way to reply to Churchill, as Hopkins surely knew that Roosevelt’s communication to the prime minister on this matter was oral: no formal agreements of significance existed on paper at this time. Hopkins nevertheless asked Bush to accumulate what he had; the director replied on February 26 that he had only “general” documentation that “does not give a clear definition of where we stand.”²⁶ Bush and Hopkins understood that they were not privy to the decisions made by Roosevelt, and that their correspondence with the British was simply a way for all of them to tell one another that they needed Roosevelt to commit to something. Exasperated, Churchill replied the next day to Hopkins, informing him (as Hopkins was probably unaware) that “my whole understanding” after the meeting at Hyde Park “was that everything was on the basis of fully sharing the results as equal partners.”²⁷ He had to admit that “I have no record,” but said that he would be “very much surprised if the President’s recollection does not square with this.”²⁸ Churchill attached to this telegram a memorandum summarizing a history of Tube Alloys that emphasized British influence, the discussions between him and Roosevelt in 1942, and the correspondence between Anderson and Bush.²⁹ Hopkins now had the British side of the story. “I must ask you,” Churchill concluded, “to let me have very soon a firm decision on US policy in this matter, as urgent decisions about our programme here and in Canada depend on the extent to which full collaboration is restored.”³⁰

The scale of Roosevelt’s inaction, together with the two allies’ preoccupation with the war in the Mediterranean, is revealed by the fact that almost a month passed with no U.S. response to this “urgent” missive. On March 20 Churchill finally sent another telegram to Hopkins asking whether the Americans were going to reply.³¹ Hopkins relayed the request to Conant, who wrote a lengthy memorandum for Bush on the

question. Every aspect of U.S. atomic diplomacy toward Great Britain can be found in the first paragraph of Conant's memorandum:

It seems to me of the greatest importance to be sure that the President understands the basic issue. The question is whether or not British representatives shall have full access to plans for the design and construction of the manufacturing plants which we are now building and full knowledge of their operation. There is no contention on the British side, I believe, that this knowledge will be of use to them in the construction and operation of their own plants, since they admittedly do not propose to build such plants during this war. Granting such access to our designs and operations at the manufacturing level can only increase the risks of the enemy learning these secrets and can neither assist the war effort nor allow a more effective use of the joint resources of the two countries.³²

Everything germane to American policy in 1943 is here. Since FDR was apparently ignoring the issue, it was up to Conant and Bush to express the risks of full collaboration—namely the risks of espionage.³³ Why, since they did not need information about work they were not undertaking, were the British so keen on total exchange? To put it bluntly, Conant suspected that the British were ready to expose the project to greater risk of exposure to German spies in order to further their own aims.³⁴ These aims might include keeping “full control” of the bomb for themselves, a statement Conant found in an early British policy paper, or to profit materially from control over atomic energy by turning over the technology to the national chemical trust (I.C.I.), officials from which had been prominent in clamoring for collaboration.³⁵ Like many American officials, both Conant and Bush mistrusted the British, more now than ever as they continued to resist opening a second front in France.³⁶

Conant recommended that the United States maintain full control over the project, inviting British and Canadian scientists to participate more fully in it but keeping sensitive information not necessary to their work away from them. This policy would ensure that the United States would possess a monopoly over the bomb once it was completed, that it

would not transfer the fruits of American work to British business concerns, that the input of valuable British and Canadian scientists could be exploited, and that the possibility of German espionage would be minimized.³⁷

Bush quickly composed a memorandum for Hopkins that emphasized Conant's suspicions.³⁸ He warned that the British might seek collaboration "not for the best prosecution of the war effort, but rather for other purposes, such as after-the-war commercial advantages," and that the British objection to American intransigence probably derived from their concern with "their post-war situation."³⁹ Interestingly, Bush did not mention the risk of espionage, though he did attach Conant's piece to his. Having delivered their views to Hopkins, Bush and Conant had done all they could to communicate their position to the president.

There the matter stood until late May. On May 25 Bush and Hopkins met with Lord Cherwell, the British ambassador in Washington.⁴⁰ Bush explained at the meeting to Cherwell that the American policy was to limit access to this top secret information entirely on a need-to-know basis. Not only were the British kept in the dark with respect to certain work; so were American scientists working on projects in support of the main bomb effort. Cherwell, playing his only card, stated that "unless this manufacturing information was furnished to the British, they might feel impelled to alter the plans and go into manufacturing themselves, to the disadvantage of the balance of the war effort." He insisted that the reasons for this threat were not commercial; rather, full collaboration would allow the British, in Bush's words, to "be able to develop the weapon for themselves very promptly and not after a considerable interval." Bush suggested that the whole question of postwar atomic policy "be approached on its own merits, and that this question is tied up with the large problem of international relations on this whole subject from a long-term viewpoint." Cherwell again threatened that without full collaboration "they might have to divert some of their war effort" to concentrate on their own project for the purposes of postwar British security. "He made it clear, of course," Bush wrote, "that he did not mean secure as against the United States, but rather as against some other country which might have it far developed at that time."⁴¹

Cherwell here introduced larger questions related to American foreign policy. Britain wanted the bomb soon in order to retain its great-power status after the war, rather than having to defer to the United States. Cherwell foresaw that some other country might soon possess the bomb, and that without one for itself, Britain would depend upon American assurance for its security from that nation. He was talking about the Soviet Union, and educating the Americans about the great-power politics they would be facing after the war.

On June 10 Churchill wrote Hopkins to remind him once again of the president's commitment to a joint enterprise and to propose "active collaboration as soon as the President has given the necessary instructions."⁴² Hopkins replied the following week that the White House would deal directly with this matter, and on June 24 Bush met with Roosevelt to develop an official reply to the British.⁴³

Bush's memorandum of this meeting leaves little doubt about the great discrepancy between British and American views about the bomb.⁴⁴ The president, according to Bush, thought it "astounding" that Cherwell had expressed the British objective of obtaining its own bomb after the war, at one point referring to the British ambassador as a "rather queer-minded chap." Bush believed that it was "evident from this conversation that the President has no intention of proceeding farther on the matter of the relations with the British," by which he meant that the United States would continue with its policy of withholding vital information from its ally and disregarding the British goal of establishing its own atomic project.⁴⁵ On this day the president also received from Moscow a copy of a telegram the Soviet premier Stalin sent to Churchill, angrily reminding the British leader of his repeated broken promises regarding a second front and implying that continued Anglo-American delay threatened Soviet "confidence in its allies, a confidence which is being subjected to severe stress."⁴⁶ In the space of twenty-four hours the American president learned of a British threat to extend the war if it could not secure U.S. cooperation for the purposes of obtaining its own atomic arsenal, and of a Soviet threat to reassess its war with Germany—for what else could Stalin have meant?—were the British to persist with their policy of avoiding a second front. The British were engaging in policies that

posed a threat to Roosevelt's dual aim of defeating Germany and winning preponderant status for the United States.

The implication coming from London was hard to miss. Playing with fewer and fewer cards, Churchill understood that he could use the current fact of British intransigence on the second front as a last negotiating tool to secure full atomic collaboration from his American ally. Roosevelt decided to accept the deal. Fundamentally, this was because the costs of including Britain in the project had become less serious. The risks of exposing the program to German espionage had lessened; indeed, we now know that by the summer of 1943 Roosevelt could have sent Hitler results of the latest fission research and weapon design by special courier, and still Germany would have had little chance of building a bomb. The continuous bombardment of German cities and the necessity for the Nazi regime to dedicate maximum resources to its war with the Russians on the eastern front saw to that. Giving the British an advantage in the postwar economic exploitation of atomic energy was a concern, but that would amount to small beer if the United States were to emerge from the war as economically dominant as Roosevelt hoped. Most important, the prospect of a Great Britain wielding an atomic arsenal after the war meant something entirely different to the American president than a nuclear-armed Soviet Union, or Germany, or even France would have done. The immediate aim was to open a second front before Stalin decided to seek terms with Hitler. The degree of real atomic collaboration between the United States and Britain could always be reduced later.⁴⁷

On July 9 Churchill sent yet another telegram to remind Washington, "I have been anxiously awaiting further news about Tube Alloys."⁴⁸ On July 17 he demanded of a visiting Henry Stimson the same decision.⁴⁹ Still with no word from the president, Hopkins stated clearly to the president on July 20, "I think you made a firm commitment to Churchill in this regard to this when he was here and there is nothing to do but go through with it."⁵⁰ Roosevelt made his decision that day: without consulting any advisers, he directed Bush to "renew, in an inclusive manner, the full exchange of information with the British Government regarding TUBE ALLOYS."⁵¹

Not slow to act, in the space of two days following Roosevelt's directive Churchill and his two main advisers on atomic energy, Anderson and Cherwell, summoned Stimson and Bush to 10 Downing Street in order to develop a joint policy on the bomb, and in particular its postwar role.⁵² Churchill iterated his claim that he was not interested in postwar commercial applications but rather in "Britain's independence in the future as well as for success during the war," warning that "Russia might be in a position" to use a bomb in future for "international blackmail" unless the two allies worked together.

Bush replied that the American objective with respect to atomic energy was to limit exchange of information "unless it would help the recipient in the task of winning *this* war; that his limitation followed general security principles in war time." Stimson proposed a general series of recommendations, which Churchill summarized in this way:

1. A free interchange to the end that the matter be a completely joint enterprise.
2. That each government should agree not to use this invention against the other.
3. That each government should agree not to give information to any other parties without the consent of both.
4. That they should agree not to use it against any other parties without the consent of both.
5. That the commercial or industrial uses of Great Britain should be limited in such manner as the President might consider fair and equitable in view of the large additional expense incurred by the U.S.⁵³

Stimson agreed to convey these recommendations to the president; on July 26 Roosevelt told Churchill, "I have arranged satisfactorily for the TUBE ALLOYS," and asked him to send an envoy to hammer out a final agreement so that the issue could be formally resolved in time for the Quebec conference in August.⁵⁴

Conant, especially, did not take the new direction in American policy well. On July 30 he wrote Bush to tell him plainly that in his view "a complete interchange with the British on the S-1 project is a mistake." Full exchange, he argued, "cannot in any way assist the war effort and

will greatly diminish our security provisions here in the United States. . . . You are, of course, free to quote me on this point to those in higher authority if you see fit.”⁵⁵

Conant’s objections were not heeded: Roosevelt, Stimson, Hopkins, and Bush were all agreed on the diplomatic benefits of collaboration. At Quebec in August the United States and Great Britain formally agreed, along the lines of Churchill’s July proposal, that the atomic project would reach fruition more speedily “if all available British and American brains and resources are pooled”; a committee would be set up, with Canadian participation as well, to monitor the project, with “complete interchange of information and ideas on all sections of the project between members of the Policy committee and their immediate technical advisers.”⁵⁶ With this came, effectively, the end of Anglo-American friction about the issue of collaboration. A new issue would emerge over the next year, however: whether it was in the interest of the two nations to extend such collaboration to other nations—namely, the Soviet Union—for the purposes of international control.

Many of the scientists affiliated with the Manhattan Project had begun to express fears that the weapon they were feverishly working to produce must be placed under some kind of international control following the war, lest it be used by several nations in an atomic World War III. Their concerns had little effect upon wartime great-power diplomacy, if for no other reason than that neither Roosevelt nor Churchill was in any way interested in developing an institution that could exert such control while the wars against Germany and Japan still raged. The Danish scientist Niels Bohr had the greatest success in bringing this problem to the attention of the Allied leaders; but even his campaign was impatiently dismissed by Roosevelt and Churchill, for reasons that cut to the heart of Anglo-American atomic diplomacy vis-à-vis the Soviet Union.

In February 1944 Bohr, a leading physicist working on the atomic project at Los Alamos, met with the Supreme Court justice Felix Frankfurter in order to ask for his help in communicating to the president his fears about the bomb. Bohr believed that the United States must inform the Soviet Union about the bomb immediately if there was to be any chance of establishing international control of the new weapon follow-

ing the end of the war.⁵⁷ A rigid Anglo-American monopoly would intensify Soviet mistrust and pave the way for a postwar atomic arms race, which could only lead to disaster. Frankfurter secured a meeting with the president in March, at which Roosevelt told him that the problem of the bomb in postwar international politics “worry[ed] him to death.”⁵⁸

Rather than agreeing to initiate an overture to Stalin, however, Roosevelt informed Frankfurter that Bohr ought to present his case to Churchill; the president did not want to go behind his British counterpart’s back. That may well have been so, but Roosevelt certainly knew that a private mission to London undertaken by an atomic scientist with no official authority was a poor way to achieve any kind of commitment on such a fundamental matter from the British prime minister. Roosevelt, had he truly been convinced by Bohr’s importuning, would have ordered his main advisers to develop a major new policy on postwar atomic control, but he did nothing of the sort. Instead, Bohr went to London in early April on his own account, and waited for several weeks to meet Churchill, who had already expressed his opposition to such an idea to his adviser Lord Anderson. While waiting to meet the prime minister, Bohr also made plans for a trip to Moscow, whereby he might single-handedly pave the way for a grand Allied determination to establish a permanent peace in the postwar atomic age.

The meeting between Bohr and Churchill on May 16 epitomized the different worlds in which the scientist and the wartime statesman lived. Churchill not only refused to accept Bohr’s plan of disclosure to the Russians; he also rejected the more basic logic that an atomic arms race following the war represented a new and fundamental danger. Indeed, Churchill, like Roosevelt, was most concerned by the fact that Bohr had evidently been discussing the problem with colleagues in America and Europe and had made overtures to a colleague in the Soviet Union, thus violating the strict secrecy that was supposed to be governing the Tube Alloys program. He sent the Danish physicist away with disdain.

Not completely demoralized, Bohr returned to America convinced that his task must be to develop a grand blueprint for international control and deliver it directly to the president, whom he believed to be sympathetic to his aims. Over the summer Bohr wrote a lengthy memorandum

in which he spelled out with precision and depth the logic for international government in a world in which atomic weaponry could make war nothing more than suicide.⁵⁹ The memorandum was sent to the White House, and Bohr met with Roosevelt on August 26.⁶⁰

Roosevelt, as always, expressed his warm agreement with Bohr's plan and suggested that both Stalin and Churchill could well be amenable to the idea of international control, a claim that Roosevelt cannot have seriously believed. Bohr came away from their meeting of course delighted by the president's enthusiasm, hopeful that in the forthcoming conference in Quebec, Roosevelt would secure Churchill's approval and take the next and decisive step of collaboration with Stalin, a task for which Bohr hoped he might be asked to serve as special envoy. Richard Rhodes persuasively argues that Roosevelt always believed that Bohr was essentially an envoy from Britain, and never understood the larger ambition of Bohr's diplomacy.⁶¹

Roosevelt and Churchill avoided the topic of the atomic project during the formal deliberations at Quebec, perhaps worrying about the breach in security that Bohr's campaign had revealed to them. After the conference ended Churchill followed Roosevelt to Hyde Park, where they formulated official—though secret—policy on international control of the atomic bomb. Their decision on this matter was unambiguous: "The suggestion that the world should be informed regarding tube alloys, with a view to an international agreement regarding its control and use, is not accepted. The matter should continue to be regarded as of the utmost secrecy; but when a 'bomb' is finally available, it might perhaps, after mature consideration, be used against the Japanese, who should be warned that this bombardment will be repeated until they surrender."⁶²

Roosevelt told none of his aides of this agreement, and indeed there was no written record of it whatsoever on the American side.⁶³ Upon the president's return to Washington he alluded to the decision in a meeting with Vannevar Bush, who reported that he, Conant, and Stimson all worried that a decision to pursue an Anglo-American monopoly after the war would lead to tension with the Soviet Union and an inevitable arms race once the Russians developed their own bomb.⁶⁴

Bush's concerns reflected his mistaken belief that the president had made no definite agreement with Churchill, that there was still an opportunity to parlay the 1943 decision to collaborate fully with the British into a greater plan to develop international control over the bomb in alliance with the Soviet Union.⁶⁵ Bush and Conant decided to pursue the matter with Henry Stimson—to convince him that such a plan was worthy of the president's attention as events turned toward postwar settlement.⁶⁶ As we shall see, they did not understand that Roosevelt and Churchill had already ruled such a plan out, in a formal and clear agreement to which the British and Roosevelt (though not his successor) would hold tightly. By 1944 Roosevelt and Churchill had effectively concluded that the postwar world would feature two, and only two, atomic powers: the United States and Great Britain. As Martin Sherwin has put it, Roosevelt may have envisioned a postwar order governed by the "Four Policemen," but "only two of them would have the bomb."⁶⁷

The Atomic Bomb and U.S.-Soviet Wartime Diplomacy, November 1943–April 1945

Atomic prospects were one thing; geopolitical reality another. That the postwar world would be dominated by two nations—the United States and the Soviet Union—was becoming an unavoidable fact by the time the Big Three met in Teheran, Iran, in November 1943. The Soviet army was pushing the German Wehrmacht westward, consolidating Russian control over vast swaths of Eastern Europe as it proceeded. The United States was quickly becoming master of the Pacific Ocean, preparing a formidable expeditionary force to invade Europe, and perfecting a wartime economy that was outproducing the rest of the war's belligerent nations combined. Britain could not boast such achievements. Churchill's primary aim since 1939 had been to protect his nation from the threat of cross-Channel conquest and, at the same time, to sustain the interests of the British empire overseas. This had been the grand strategy of Great Britain since the reign of Queen Elizabeth, and it explained precisely why Churchill had worked so assiduously to secure American commitment to defend Britain, to initiate the war against Germany not in

northwestern France but in the Mediterranean theater, where the British retained substantial imperial interests, and to persuade Roosevelt to collaborate on the atomic project.

Churchill achieved much of what he wanted, but what he could no longer do by late 1943 was represent his nation as a true great power. Britain was dependent upon the United States, and Roosevelt and Stalin knew it.⁶⁸ At Teheran the American and Soviet leaders began to negotiate directly about the postwar international order, conspicuously, and even rudely, excluding Churchill from the discussions. Roosevelt and Stalin were not at Teheran, as Warren Kimball points out, to develop joint military plans for the defeat of Hitler. They were there to take the measure of each other, to get an idea of whether they could truly cooperate after the war.⁶⁹

To attempt to understand how the prospect of the atomic bomb affected Roosevelt's measurement of Stalin and of the U.S.-Soviet relationship after the war is to descend even further into murkiness and inference. The atomic diplomacy waged between Roosevelt and Churchill resembled normal foreign relations insofar as both sides were aware of the project's existence, acknowledged this, and groped toward an understanding of its effect on their position in the war and in postwar international politics. Roosevelt's dissembling relationship with his subordinates and reluctance to commit to an official course of action complicated the story, but the growing urgency exhibited by the British during the middle of 1943 forced him to develop a discernible policy. The atomic diplomacy waged by Roosevelt toward Stalin, on the other hand, was of an entirely different form. Never once did Roosevelt allude to or even hint at the project's existence to Stalin, even though Stalin knew of it by 1942, and even though Roosevelt knew by early 1943 that Stalin knew.⁷⁰ Nor did the president spell out to any of his subordinates, at least as is recorded in available documents, precisely how he saw the bomb fitting into U.S. relations with the USSR.⁷¹

The overriding issue of wartime contention between the United States and the Soviet Union, the question of the second front, had faded away in the months following Teheran. Roosevelt had definitely committed to a spring invasion at the summit; he had openly belittled, in front of Stalin,

Churchill's final pleas for an attack via Italy; and by early 1944 the preparations for a cross-Channel invasion of France had become easily evident to Stalin and his formidable network of spies. Even more important, by early 1944 the Soviet counterattack against the German Wehrmacht was proceeding so well that a second front was becoming less and less necessary to the Soviet objective of defeating the Nazi regime.⁷²

The new problem in Soviet-American relations, from the president's point of view, was the question of whether Stalin was willing to go along with Roosevelt's vision of the postwar world, a world governed by a cooperative league of great powers all enforcing, and abiding by, the "four freedoms" he had announced before American entry into World War II. His experience with Great Britain had demonstrated that a promise of atomic collaboration could persuade other nations to go along with his broad wartime objectives. This was what Roosevelt, in tandem with his secretary of war, Henry Stimson, tried with the Russians, but with much less success.

Roosevelt's general vision of a successful postwar security order required two concessions from the great powers that would dominate it. First, they would be prohibited from colonizing or otherwise forcibly imposing their social and economic system upon other states. For the president this had largely been meant to apply to the old European empires, especially Britain, but there was no reason why it could not also apply to the newer powers. Second, they would have to agree on the development of a serious international body, run by these great powers, that could stop aggression and conflict effectively, unlike the hapless League of Nations conceived by Woodrow Wilson. Roosevelt understood that an international enforcement agency run by the great powers could never work unless each of the powers agreed to abide by the decision of the majority, even if that decision threatened one of them. Otherwise, the agency would be powerless to stop the aggression of any one of the great powers, which, of course, had always been the cause of major wars.

What Roosevelt failed to think through, before his death in April 1945, was the political logic of international cooperation among the great powers. Roosevelt, like Wilson before him, envisioned a new world order that

would be based upon open markets and promise political and civil liberties to all. To participate in such a new world order, the Soviet Union would have to relinquish its social and economic system and take on the system of the United States. Having fought a horrendous war against Germany in order to protect the Russian nation, the Soviet experiment, and his own dictatorial rule, Stalin was unlikely to agree to this. Could serious international collaboration, on matters as central as peace and war, work when one of the world's greatest powers, the Soviet Union, remained outside of the new order? In other words, could the "four policemen" keep international peace when one of them rejected the principles upon which this peace was constructed? Roosevelt's consideration of this problem during the last several months of his life suggests that he believed that it somehow could. Perhaps he believed that the atomic bomb would persuade the Russians to relent. Ironically, it had the opposite effect.

As the Red Army pushed the Wehrmacht back toward Germany in 1944, Soviet political operatives attached to it worked throughout Eastern Europe to install client regimes in nations like Romania, Hungary, Czechoslovakia, and, most notably, Poland, the attack on which in 1939 had initiated the war. Reports filtered to the White House, written by such veteran diplomats as William Bullitt and Averell Harriman, of the vicious and brutal nature of Soviet action there, including a rumor of the Soviet massacre of perhaps twenty thousand Polish officers and civilians in and near the Katyn forest. Poland's role in the beginning of the war, together with the large Polish exile community in London, and the large Polish voting bloc in America, combined to encourage Roosevelt and Churchill to express their displeasure to Stalin throughout that year. In February, Roosevelt sent a cautious telegram to Stalin, asking him to reconsider his decision to deny the exile government in London participation in the formation of a postwar regime in Poland. Writing very carefully, Roosevelt told Stalin that he appreciated "your desire to deal only with a government in which you repose confidence," but he expressed concern that "nothing should be done to transform this special question into one adversely affecting the large issues of future international collaboration."⁷³ The president here wanted to hint that interna-

tional cooperation after the war required better behavior in Poland, but it was too early for more specific threats.

Stalin, who was still waiting for the second front, would have none of this. In March he forwarded to Roosevelt his reply to one of Churchill's more pointed criticisms of Soviet action in Poland, which he characterized as "bristling with threats" against the USSR.⁷⁴ He would not accept the idea that the exile government in London represented the Polish people, and was not receptive to Churchill's implication, following that of Roosevelt, that continued repression in Poland might "affect our cooperation in other spheres."⁷⁵

Stalin's indifference to the reproaches of Roosevelt and Churchill became even more evident in the summer of 1944, when the Red Army held back from seizing of Warsaw from the Nazis in order to allow the Germans to rout the Polish underground resistance there. This was an unmistakable sign of Stalin's determination to impose his own regime in Poland irrespective of Allied outrage—there was little possibility of portraying this as anything other than the most cynical of actions. Roosevelt and Churchill expressed in a joint letter to Stalin on August 20 their dismay at this decision, but attached to it no threats or condemnations.⁷⁶ What, after all, could Great Britain and the United States really do about Soviet behavior in Eastern Europe? They could imply that such action might endanger international cooperation after the war, but Stalin had already made clear that this was an empty threat to him. If the Western Allies were really that concerned about the fate of the Poles, they would have opened a second European front earlier.

On September 9, just before leaving for the second Quebec conference, Roosevelt communicated to Stalin the second element of his postwar vision: the necessity of majority, rather than unanimous, decision making among the great powers who would keep the postwar peace.⁷⁷ During the Dumbarton Oaks conference on postwar planning the Soviet ambassador to the United States had suggested that his nation was opposed to the idea of majority rule. "We and the British both feel strongly," wrote the president, "that in the decisions of the Council parties to a dispute should not vote even if one of the parties is a permanent member of the Council, whereas I gather from your Ambassador that

your government holds a contrary view.” Great-power veto over Security Council action, Roosevelt continued, would certainly lead smaller nations to conclude that the permanent members “set themselves up above the law.”⁷⁸

Stalin’s reply arrived at the White House just as Roosevelt, Conant, Stimson, and Bush were about to finalize U.S. atomic policy in the aftermath of the unwritten agreement with Churchill at Hyde Park. It was thus during the middle of September 1944 that the administration developed its final approach to the question of the atomic bomb and the Soviet Union. Stalin’s response to the question of great-power unanimity was difficult to misread. Though he allowed that the “original American proposal for establishing a special voting procedure in the event of a dispute involving one or several of the members of the council who have the status of permanent members is, I think, sound,” he insisted that the spirit of “four-Power unity of action,” as agreed upon at Teheran, must govern Security Council operations. It is “essential,” he wrote, “that the Council should base its work on the principle of agreement and unanimity between the four leading powers on all matters, *including those that directly concern one of those powers.*”⁷⁹

Would the Soviet Union participate in the postwar order he envisioned? One must conclude that Roosevelt had vivid answers by mid-September. The clear *Machtpolitik*, or power politics, that Stalin was engaging in with Poland, symbolized by the Katyn Forest massacre and perhaps even more flagrantly by the cynical abandonment of the Polish underground fighters, demonstrated to the president that the USSR was unwilling to grant local political autonomy to national groups and preferred indeed to suppress that autonomy ruthlessly. Stalin’s position on the veto, moreover, indicated to Roosevelt that the Soviet Union would feel free to act comparably in the postwar world without fear of international reproof. The “four policemen” would therefore simply resemble the League of Nations before the war, a group of great powers happy to stand for international peace and order but unwilling to apply their rules to themselves. A cynical Soviet Union deploying council veto power would doom the international league Roosevelt had in mind to ineffectiveness and uselessness.

To win a true Wilsonian peace, Roosevelt had to coerce—suasion, he knew, would not work—Stalin to alter his foreign policies in a fundamental sense. Before the middle of 1944 Roosevelt possessed no means of doing so, apart perhaps from the withholding of Lend-Lease, and this had to be weighed against the fear of the Soviet Union collapsing or deciding to sign a separate peace with Germany. By September, though, the circumstances had changed. The United States and Britain no longer relied upon the USSR to prevent German victory—neither a Soviet defeat nor a threat of negotiations with the Germans was plausible now.⁸⁰ The military situation in Europe, barring some unlikely catastrophe, portended a simultaneous conquest of Germany from east and west: in geopolitical terms, Europe was in a kind of military balance.

Here was a situation in which Roosevelt could now play his one new card: the prospect of an American, or Anglo-American, monopoly over the atomic bomb. Playing that card did not mean, in late 1944, the possibility of threatening the Soviet Union with an atomic attack once the bomb was available. Such a threat was far beyond Roosevelt's thinking; and in any event that would not have been a fruitful means of obtaining Soviet cooperation on the four-policemen council. Rather, the bomb could be used as a tacit means of diplomatic leverage. The United States could use its atomic project much in the way it had used it with Great Britain.

Five days after Stalin's reply on great-power unanimity, Bush and Conant delivered a lengthy memorandum to Secretary of War Stimson addressing their concerns about the possibility of an Anglo-American atomic monopoly.⁸¹ As we have seen, they were not definitely aware of the secret agreement between Roosevelt and Churchill that had been made the day before, but at the same time had seen nothing come of Bohr's meetings with the two leaders or their earlier expressed qualms about the consequences of such a monopoly upon postwar international relations. Both Bush and Conant believed that a public monopoly would alienate the Soviet Union, which they opposed not out of a particular sympathy for the Russian state but rather because it would doom, in their judgment, any chances for a serious regime of international atomic control.⁸² That would pave the way for an atomic arms race, as Bohr had already warned, because the secrets of atomic science could not be preserved for long.

Roosevelt met with Bush on September 22 to discuss the question: proof enough that he was ready, finally, to establish formal guidance on the fundamental problem of the bomb and the postwar order. Attending the meeting also were Admiral William Leahy, who had just been informed of the Manhattan Project, and Lord Cherwell, the British ambassador. Roosevelt made plain to Bush, in front of the British diplomat, and in spite of his four-freedoms rhetoric, that he believed it was important to keep the British Empire strong, which was one reason for the decision to collaborate.⁸³ Bush expressed his opinion that the atomic secret would not last long after the end of the war but was naturally reluctant to articulate his complete views on that subject, or on the advisability of a continuing British Empire, in the company of Cherwell.⁸⁴ No mention was made by anyone at this meeting of international control.

Alarmed, Bush met with Stimson the following week to voice his misgivings at what he perceived to be a dangerous move in Roosevelt's atomic policy.⁸⁵ Stimson agreed that the issue deserved action and asked Bush to forward to him a proposed policy statement. On September 30 Bush and Conant delivered two papers to Stimson that articulated the major problems raised by a policy of monopoly.⁸⁶ The scientific secrets, they iterated, could not be withheld from other countries; the basic knowledge was well known worldwide, and the materials necessary for the bomb might be found anywhere. Even more worrisome was the possibility of a hydrogen, or thermonuclear bomb, for which the necessary material was abundant.⁸⁷

The solution—the alternative to an arms race that could otherwise not be prevented—was to put forward a bold new American policy on the bomb. Once the first weapon was tested and ready to go, it should be demonstrated in a public way, observable not only to Japanese delegates but to officials from every nation. Then the United States should propose that an international council take full control of the weapon and of raw materials around the world, with unfettered access to facilities and laboratories everywhere. Such a council would answer to a federation of the world's great powers, along the lines of the “four policemen” that Roosevelt had suggested.

The issue, at last, was at hand. It was time now, before the bomb came into being, before the war was over, to create a new form of international accord around the danger of the atomic bomb lest it be unleashed into the anarchical realm of international politics. The dynamics of the war had allowed Roosevelt to defer this question, but by the end of 1944 that could no longer serve as an excuse for delay.

In December, Roosevelt reached his decision. A French scientist, Pierre Auger, had resigned from the Manhattan Project and was keen to return to newly liberated France. The Free French government, however, was, according to the agreement after Quebec, not to be included in atomic collaboration, and Auger's return there threatened that deal. Furthermore, several figures in French science, most notably Frédéric Joliot-Curie, were members of the Communist Party and had links to the Soviet Union. General Groves wanted to stop Auger from associating with his colleagues in France, but the British protested, noting that French science had contributed to the bomb program and that in any event it would be impossible to prevent the information Auger possessed from spreading to the French government and its officials.⁸⁸

The Auger affair was, in retrospect, a minor story in the larger context of atomic espionage: anything he could have delivered to friends of the Soviet Union in France would have paled in comparison to what American spies had already passed to Moscow, as we shall discuss further. But his situation, and the brief diplomatic row it created between the United States and Great Britain, highlighted perfectly the problems associated with a continuing monopoly. To what lengths were the Americans willing to go to prevent information and material from being passed to politicians and scientists in other countries? Could the United States and Britain really corner the monopoly on uranium, as Bush, Conant, and Groves had discussed in September?⁸⁹ Could the two nations permanently prevent every scientist and bureaucrat familiar with the project from communicating their knowledge to anyone with links to any other government? It was an impossible task.

On the day after Christmas, Stalin elaborated, in a letter to Roosevelt, on the question of the veto. In it he spelled out clearly and thoroughly his opposition to the proposal that the council unanimity must be sacri-

ficed in the event of aggression committed by one of those great powers. "It goes without saying," wrote Stalin, "that any attempt to bar at any stage one or several permanent members of the Council from voting . . . could have dire consequences for the preservation of international security." To eliminate the veto in instances involving one of the permanent members "runs counter to the principle of agreement and unanimity in the decisions of the four leading Powers and may result in some of the Great Powers being played against others—a development which would be likely to undermine universal security." The uncharacteristic thoroughness and craft of Stalin's December 26 letter indicated that he and his advisers had thought through this question. "I must insist," he wrote, "on our former stand as to the voting in the Security Council."⁹⁰

With a second great-power summit looming at Yalta, Roosevelt and his advisers on atomic energy moved at the very end of the year to develop a coherent policy. On December 30 the president met with Stimson and Groves, officially to discuss the French affair.⁹¹ Roosevelt asked whether Churchill had something to do with the British interest in this problem, and whether the leaks to France put the secrecy of the program at risk. Groves informed the president that the Russians were in all likelihood continuing to spy on the project. Groves and Stimson together informed Roosevelt that the bomb was technically almost ready, and a workable weapon ought to be available around August 1. Groves added that the target of the new weapon would be Japan, which Roosevelt endorsed. Stimson asked to meet the president on his own the following day.⁹² Later on the thirtieth, Roosevelt wrote an unusually forceful letter to Stalin, pronouncing himself "disturbed and deeply disappointed" by Stalin's refusal to recognize the London Poles and declaring, with "frankness equal to your own," that he saw no evidence that the Lublin committee, the group of Poles under the control of the Soviet Union, "represents the people of Poland."⁹³ Roosevelt insisted that Stalin delay formal installation of the Lublin committee until the three leaders met in January. He wanted to make Poland the issue of future Soviet-U.S. cooperation.

Stimson arrived at the White House the next day, and he and Roosevelt began to talk about the impending conference.⁹⁴ Stalin had replied

to Roosevelt that he was “powerless” to prevent Soviet recognition of the Lublin committee, because the Presidium of the Supreme Soviet had already voted to do so, making it impossible for Stalin “to comply with your wish.”⁹⁵ This was cynical stuff, making Roosevelt particularly receptive to Stimson’s argument that the Soviet Union would only take advantage of further concessions. Stimson added that Soviet intransigence had a bearing on the atomic project: their continued spying and brutal treatment of the Poles made it “essential not to take them into confidence until the United States was sure of getting something for its frankness.”⁹⁶ He concluded that it was not yet time to share the secret with Stalin, and Roosevelt agreed.

The president engaged in no further policy making on the atomic question before his trip to Yalta in late January. His discussions with Stimson on the last day of 1944 suggest clearly that he had decided to make Soviet relaxation of its police-state methods and brutality in Poland the price of real atomic collaboration with the Americans: a *quid pro quo*, as Martin Sherwin calls it.⁹⁷ But at Yalta, Roosevelt failed to achieve any kind of deal with the Soviet Union. He acquiesced to the Soviet demand for effective autonomy in Eastern Europe, made no headway on the question of Security Council unanimity, and in general obtained nothing from the Soviet leader that would have given him confidence that his plan for a new world order defined by the four freedoms and governed by the four policemen was going to succeed. Roosevelt did mention to Churchill that it might make sense to inform the Soviets about the bomb now, since they were bound to find out about it via France; Churchill angrily rejected the idea, and nothing came of it.⁹⁸

President Roosevelt and the Failure of International Control

It is too easy to look upon Yalta as Roosevelt’s final failure to secure agreement on the bomb with Stalin and achieve his postwar order. Nobody knew then that he would die two months after the conference; nor could it be known with assurance that the war in Europe would come to an end in May, or that the bomb would be successfully tested in July.⁹⁹

As far as the U.S. administration was concerned, there was still time after Yalta to use American leverage to attain at least the appearance of self-government in Eastern Europe and establish a serious Security Council buttressed by international control over atomic weaponry. Indeed, Vannevar Bush, at least, was so encouraged by Yalta that he began work in February on a serious memorandum outlining how the United States might trade collaboration on the bomb to the Soviets in exchange for a more liberal order in Eastern Europe.¹⁰⁰

The question to be asked, rather, is why Roosevelt declined to undertake policies while he was alive that would have provided him with a better chance of achieving international control, policies that his senior atomic advisers had introduced to him and that he knew were crucial if the new order he envisioned was to have the strongest chance of success. Three general answers to this question emerge from the history of American foreign policy during the war.

One answer lies in the strong influence of Winston Churchill upon Roosevelt's thinking and actions, especially during the earlier period of American atomic diplomacy. Churchill had persuaded Roosevelt to share the atomic monopoly with Britain, a decision which complicated, if not destroyed, the chances of later internationalization of the bomb; Churchill, moreover, had consistently derided the idea of international control and had worked to portray the ideas of Conant, Bush, and Niels Bohr as impractical and even dangerous. To achieve a serious regime of international control, Roosevelt, or any American president, would have had to renege on the September 1944 Hyde Park agreement: this would have at the very least alienated the British, and it might well have led to a serious crisis in Anglo-American relations that itself would have doomed the prospect of a cooperative Security Council sharing the bomb equally. What would Churchill have done were Roosevelt to have proposed full collaboration to Stalin at Yalta? Any number of reactions are easily imaginable, and none of them would have boded well for amicable postwar international governance. Roosevelt surely understood this.

Second, the cynical nature of Soviet policy during 1944 clearly made Roosevelt more pessimistic about the Security Council that was central to his vision of both postwar politics and of international atomic control. It

is true that the Americans and the British were ill disposed to the idea of true atomic sharing from the outset of the Tube Alloys project, and that therefore the Soviets could have acted much more benevolently without changing American and British attitudes to the extent that they would have been really willing to run the risks of international collaboration. But Stalin did himself no favors on this front, as on many other Cold War fronts, by waging his crude *Machtpolitik* in Eastern Europe. Roosevelt had persuaded an isolationist American public and Congress that he would not betray American ideals at the postwar settlement, as had Woodrow Wilson a generation earlier. For the president to live up to this promise, he would not only have to persuade a skeptical America to participate in a European security league, as had been Wilson's main objective. He also would have to sell the much more radical idea of ceding control over a new weapon on which the nation had spent billions to a Security Council in which the Soviet Union would exert tremendous power. To do this, Roosevelt needed a Soviet ally that he could portray to the American people as trustworthy, moderate, and accepting of Western notions of international law and practice. Stalin's unapologetic and brutal conquest of Eastern Europe and his insistence upon a Security Council veto made him appear to the American public and to Roosevelt himself as exactly the wrong sort of leader to whom such tremendous trust ought to be given. Perhaps Roosevelt drew comparisons here between Stalin and the cynical British and French diplomats who had undermined Wilson at Versailles. The president did not want that to happen again.¹⁰¹

Roosevelt still could have chosen in 1944 and 1945 to pursue a grand postwar order and international control over the bomb. He could have run the risk of antagonizing the British and of becoming a new incarnation of Wilson in American politics: the stakes, as he said, were so high that such risks, if we are to take him at his word, ought to have been worth taking.¹⁰²

What finally doomed his vision for a bold postwar order was a fundamental contradiction in his diplomatic approach to the bomb, and the decisive effect this contradiction had upon wartime alliance politics. Roosevelt sought to use the atomic project as a negotiating tool. With the British, he used the promise of full collaboration as an incentive to

persuade Churchill to accept American determination and domination of the second front invasion of France in 1944. With the Soviets, he used the possibility of postwar international atomic cooperation as an incentive to persuade Stalin to accept self-determination in Eastern Europe and, by extension, an open world order. At the same time, he held the atomic bomb in reserve in case the Soviet Union proved unwilling to collaborate on American terms, which pivoted in 1945 around the question of the Security Council veto.¹⁰³ By refusing to inform Stalin of the project, moreover, Roosevelt implied to the Soviet leader that the United States meant to use its new weapon for anti-Soviet purposes, rather than simply to end the war quickly. As Warren Kimball writes, “if Stalin somehow grasped the real nature of the bomb, then Roosevelt’s dream of a ‘family circle’ was doomed from the start.”¹⁰⁴

Roosevelt wanted to use the bomb for these purposes because it allowed him to avoid other, more difficult forms of diplomatic pressure, such as threatening the British with abandonment—the Pacific option—if they did not sign on to the second front, or confronting Stalin more forcefully at Teheran and Yalta, and perhaps actually sending Eisenhower’s armies farther eastward, in order to contend militarily with the Red Army in the east. There were many voices calling for these more dangerous policies, but Roosevelt preferred the safer route of accommodation, backed up by a quiet atomic diplomacy, to achieve stable relations with his two major wartime allies.

But by relying on atomic diplomacy Roosevelt pushed these two allies into positions that made a grand atomic settlement after the war almost impossible to achieve. His decision to grant the British full collaboration and to endorse their objective of attaining their own atomic arsenal after the war had the result of making Britain basically uninterested in international control. Churchill could reason in 1944 that the two nations most likely to have the bomb after the war were Britain itself and a nation that would not threaten Britain, the United States. The security provided by that condition was, for a shrinking empire abutting a dangerous continent, far better than any plan that would have the two nations handing over their bombs to a new and untried international council.

Even more important, Roosevelt’s reliance on the bomb in his rela-

tions with the USSR discouraged him from thinking more systematically about the radical political transformation that was necessary if he was to obtain an authentic new world order. The establishment of a Wilsonian order worldwide, not just in part of the world, would require, as Bush, Conant, Stimson, Bohr, and others were beginning to understand, a serious political collaboration among the great powers, an intensive cooperation that would by necessity approach the formation of a government among them. Such cooperation would be abortive if the other great power, the Soviet Union, now in control of large sections of Europe, did not take part in the integrated liberal and capitalist system Roosevelt envisioned. To incorporate the Soviet Union into such a system would require fundamental political action. The United States and Great Britain could coerce the Russians into accepting a global new order on their terms, but this was a step that would probably mean war. Roosevelt could modify the four freedoms and develop a different regime of world order that would accommodate the communist and totalitarian political system of the Soviet Union, but this would mean a world divided into two economic spheres—unless Roosevelt was willing to accept the imposition of Soviet socialism upon his country and the rest of the world, which of course was a ridiculous notion. Unless the United States was willing to undertake radical steps to incorporate the Soviet Union into its post-war order, a world divided into competing economic spheres, and hence into political rivalries that would undermine a serious regime of collective security, was inevitable.

The prospect of the atomic bomb gave Roosevelt reason, or perhaps even more reason, to avoid confronting these difficult political dilemmas. Instead, the president blithely seemed to conclude that the atomic bomb might somehow persuade Stalin to accept not just a “four policemen” arrangement that economic divisions and the Security Council veto were already going to render innocuous—he hardly needed an atomic bomb to get Stalin to agree to that—but a serious international transformation, one based upon a new economic and political international order that would mean the effective end of the Soviet experiment. The continued secrecy of the project (what else was to be gained by it by the time of Yalta?), the Hyde Park collaboration with the British, Roosevelt’s

increasing criticism of Soviet activities in Eastern Europe all point to the possibility that Roosevelt had come to the idea that the atomic bomb gave him a chance to secure a real Wilsonian order, rather than the shell of one that was currently on the table, without having to ask the American people to pay the severe political and military costs that attaining such an ideal normally would have required.

By combining atomic secrecy, political and military tentativeness, and a growing rhetorical combativeness toward the Russians during the last several months of his presidency, Roosevelt presented to the Soviet Union a picture of an enigmatic American rival. His plans for a peaceful and unified postwar order had been shaken by Soviet power and the unique considerations posed by the prospect of the atomic bomb. By the time of Yalta, Roosevelt did not possess the political will to wrestle with these problems, leaving them instead to his successor, Harry S Truman and the Soviet Union he would face.

2

THE GREAT GAME

On August 23, 1939, Joseph Stalin was in a festive mood: he had just struck a deal with Nazi Germany—the nonaggression pact. The pact promised Stalin a way out of the European war, for the time being at least. As clouds gathered over Europe, Stalin drank with the German foreign minister, Joachim von Ribbentrop, to the health of the Führer and to the new era in the Soviet-German relations. Before Ribbentrop left the Kremlin, late in the night, Stalin reassured him that he “treats the pact very seriously. . . . The Soviet Union will never betray its partner.”¹ The inauguration of the Soviet-German partnership signaled a breathtaking reversal of Stalin’s foreign policy, a decisive move away from collective security arrangements that had been necessary in the mid-1930s in the absence of trust in Germany.

In March 1935 Stalin explained his dilemma to the British: “Where is the guarantee that the German government, which so easily scraps its international obligations, would abide by a nonaggression pact? There is no such a guarantee.”² Four years later, Stalin still had few guarantees. In fact, he expected that Germany would sooner or later become the main Soviet enemy in Europe. But in the short term, the pact gave both Stalin and Hitler much-needed flexibility. The Germans could put more effort into their war in Western Europe without having to build up forces on the eastern front. Stalin won time to rebuild the Red Army, which he himself had incapacitated in the purges of the late 1930s, time to improve Soviet defense capacity and prepare the country for war, which Stalin knew would have to be fought one day.

Stalin's point of departure, a central tenet of his strategic thinking, was his belief that war was inevitable. Wars, Stalin thought, were fought among capitalists for control of colonies and resources. Inevitably, each war weakened the capitalist class. The First World War, a capitalist war, had weakened capitalist powers and precipitated the Russian Revolution. If another world war happened, it would end with a world revolutionary upheaval. Capitalist demise would make the world red. If necessary, Stalin was prepared to make use of the bayonets of the Red Army to prop up future socialist regimes. In a speech in 1925 Stalin anticipated that in case a world war broke out, the Soviet Union would let the capitalists fight it out before making a grand entrance: "We, of course, will come out last, the very last, so as to throw a weight on the scales, a weight which could make the scales tip over."³

Years later, the stratagem still worked for Stalin. He saw a pact with Hitler as a way to encourage Germany toward conquest at the expense of Western European powers. "We do not mind," he said, "if they [capitalist powers] fight it out among themselves and weaken each other. It would not be bad if the position of the richest capitalist countries (especially England) were shaken with German hands. . . . We can maneuver, push one side toward the other, so that they fight more zealously."⁴ Once the old European order disintegrated, a new order would be built with Soviet participation at the time when no other European power could equal Soviet military might. On September 27, 1939, Stalin promised Ribbentrop Soviet help in case Germany's war fortunes turned bad. The Soviet people, he said, "will not let Germany be strangled."⁵ But England's quick collapse was equally undesirable for Stalin. He preferred to see his main antagonists in Europe—Germany and England strangle each other, slowly but surely paving way to Soviet hegemony in Eurasia.

Before this long-term eventuality came to pass, Stalin had definable aims in Europe—to make the Soviet Union more secure along its western frontier. Stalin went about this difficult task by expanding Soviet control as far west as he could get away with, without triggering a war with one of the major European powers. Agreement with Germany proved instrumental to the Soviet policy of incremental expansion because it recognized and delimited spheres of interests of Moscow and Berlin in East-

ern Europe. In 1940 the Soviet Union swallowed the Baltic States, helped itself to the eastern half of Poland (the western half fell into German hands), and annexed a part of Romania. In 1939–40 Stalin also ordered invasion of Finland in order to push the Soviet-Finnish border out by a few miles and make it easier to defend Leningrad, Russia's second-largest city. Explaining his decision in April 1940, Stalin said that he had to hurry with the war against Finland while relations between Germany and the Western powers were strained to the point of conflict and nobody was paying much attention to Soviet territorial gains.

Stalin used the nonaggression pact to carve out a sphere of influence in Eastern Europe and postpone a war with Germany. The strategy misfired. In July 1940 Hitler made the decision in principle to strike Russia in 1941, before the war with England was over. As war preparations were made, the Führer kept cards close to his chest and offered Stalin a chance to partake in the Tripartite Alliance—a military pact of Germany, Japan, and Italy (the “Axis” powers). As a reward for Stalin's compliance Hitler held out a promise of Soviet expansion southward, toward the Indian Ocean, at Britain's expense. But Hitler's ambitious proposals did not fool Stalin, who pushed for recognition of further Soviet interests in Europe, including Finland and Bulgaria. The Soviet leader was not willing to barter away his perceived immediate security needs in Europe for a promise of a long-term friendship with Germany.

In the meantime, Germany and the Soviet Union increased the concentration of forces on their borders. The Wehrmacht moved divisions steadily to the eastern front after the French collapse in the summer of 1940. By the spring of 1941 German military build-up intensified. The Soviet Union also moved troops and supplies to its western frontier. Soviet workers were ordered to shift to a seven-day workweek, and industries stamped out tanks and airplanes at a feverish pace. Was Stalin's race with Germany purely defensive? The aging dictator did not rule out offensive operations. In fact, on May 5, 1941, he told Red Army officers at the Kremlin: “For a while we emphasized the need for defense—until we rearmed our troops and gave them modern weaponry. Now, with the army restructured and possessing equipment for modern combat—now that we have become strong—it is time to go from a posture of defense

to one of attack.” Stalin’s hints were taken as policy indications by the top military brass, who even worked out a plan for a preemptive attack on Germany.⁶

Stalin apparently rejected that plan. He thought that the time was not yet ripe for a war, and that the Soviet Union needed more time to strengthen its military capacity. Germany also needed more time to be worn down in an embittered struggle with England. Stalin gambled: he thought that Germany would not strike first, not before it had brought England to its knees. Hitler, Stalin thought, would not fight a two-front war. All the while, Soviet intelligence sent reports of an imminent German attack. Stalin did not believe his spies, though, and dismissed warnings as “disinformation,” planted by the British to provoke Soviet war with Germany. On June 21, 1941, one day before the German invasion of Russia, Stalin’s Foreign Minister Viacheslav Molotov summed up Soviet views on the war enigmatically: “The situation is unclear. A great game is under way.”⁷ This was a game of nerves Stalin expected to win.

The State and Science

Soviet science served Stalin’s purpose. Scientists enjoyed state support but were expected in return to produce results—measured in steel and concrete. Political authorities greeted scientific discoveries with enthusiasm, but only inasmuch as such discoveries could be put to immediate practical use. Party bosses were the ultimate judges of usefulness of science, and arbitrary ones at that. Bureaucratic hold-ups and stiff lines of hierarchical authority in science and politics constrained scientific initiative. Making a discovery mattered less than making it heard at the top. Stalin’s protégés in the ranks of scientists and engineers did well: their inventions were praised and implemented in industry and defense; they were promoted to become heads of institutes; they were given state rewards and dachas near Moscow. Others, less fortunate, were given long prison sentences and bunks in Gulag camps. Scientific genius did not provide any assurance that one’s name would not end up on the black-list of the ominous NKVD, the People’s Commissariat for Internal Affairs. Many scientists never returned from this meat grinder.

Those scientists who remained at their desks by the late 1930s were under pressure to further Stalin's military aims. In 1939 the Council of People's Commissars (CPC) instructed the Soviet Academy of Sciences to work on defense-related tasks. A special department was organized at the academy in April to coordinate defense research projects with the military establishment. The bearded polar explorer Otto Schmidt, now vice president of the academy, in one meeting encouraged institutes to work on practical matters: for example, to find better and cheaper materials for equipping soldiers and for safely storing ammunition—in other words, on matters that “were directed immediately to the needs of the country's defense.” Theoretical work counted, of course, as long as it made hammers stronger and sickles sharper, but abstract ideas or projects of remote practical application did not endear party bureaucrats. Wars were won not with bright scientific theories but with tanks and airplanes. In 1939, as Stalin prepared for war, science too was put on a war footing.⁸

Like all science, Soviet nuclear science faced the imperative of practicality. In early October 1938 a special meeting of the physics group at the Academy of Sciences concluded that the nuclear institutes (of which there were four: two in Leningrad, one in Moscow, and one in Kharkov) did not pay adequate attention to practical use of nuclear science. These institutes were reminded that the “essential task of nuclear physics in the near future is all-sided development of work, related to applied technical questions.” But the ultimate prize of nuclear research—sustainable release of energy from atomic fission—still seemed so far off that many nuclear physicists doubted that it could ever be achieved. The Soviet physics heavyweight Petr Kapitsa predicted in February 1940, “We will not use atomic energy . . . with ease, and in all probability will not use it at all.” Most leading scientists concurred.⁹ Then what could be said of the bureaucrats!

Between 1937 and 1939, for example, Leningrad's Physics Technical Institute (LPTI) fought a battle of attrition with the People's Commissariat for Machine Building, the institute's overlord, for funds to construct a cyclotron particle accelerator. It was to be the second such particle accelerator in the country, although the first, at the Radium Institute, had never quite worked. Meanwhile, the United States already

had a dozen cyclotrons, with more under construction. It took a personal letter to Molotov from a group of desperate scientists to get the bureaucrats moving, and even then the hesitant commissariat dragged its feet, promising money and taking it back, swinging the physicists “back and forth from despair to hope.”¹⁰ This was to be expected. Acceleration of production was higher up on the government’s agenda than acceleration of particles.

Discovery of uranium fission in 1939 opened up new possibilities for nuclear research. The task was daunting, but lighter uranium isotopes could be split—John Dunning’s experiments with a small quantity of U-235 proved as much in the spring of 1940. New evidence impressed the Soviet scientists Vladimir Vernadskii and Vitalii Khlopin, who in June 1940 called on the Academy of Sciences to take “urgent measures . . . to prospect and mine uranium ores, and extract uranium from them.” A special Uranium Commission was formed to coordinate relevant research. Vernadskii, Khlopin and the mineralogist Aleksandr Fersman warned that the Soviet Union could “fall behind” foreign countries in stockpiling uranium in light of “feverish work” in this direction in the United States.¹¹ The academy followed up with a letter to the government on September 5, 1940, requesting creation of a special state uranium reserve, even before practical ways could be determined to separate fissionable U-235 from its heavier isotope.

But again the wary bureaucracy was slow to react to the new demands from the scientific lobby. At a meeting of the Uranium Commission on October 1, 1940, representatives of the CPC Geological Committee pointed to the lack of demand for uranium as the main reason for unwillingness of the commissariats to spend money and resources on mining it. Things would be different if uranium had any meaning as a “commodity.” Days later, scientists were reminded that it was “difficult to stockpile a resource of unknown application.” Vernadskii privately lamented the “red tape and ignorance of Soviet bureaucrats,” but unenthusiastic government response to the problem of uranium mining was entirely to be expected. Uranium ore, for the time being, was of little practical importance to immediate needs of Soviet economy and defense. The Stalinist state directed limited resources to the most important

projects, and shelved those of lesser importance until better times. In 1940–41, the Soviet uranium project still waited for these better times.

In the United States, Roosevelt set in motion the Manhattan Project on the recommendation of leading nuclear scientists, who feared that Germany might obtain the bomb first. Although Soviet scientists were initially careful in predicting practical application for nuclear fission, many clearly understood the military significance of an A-bomb. The physicist Igor Tamm reportedly claimed as early as August 1939 that “a bomb can be built that will destroy a city out to a radius of maybe ten kilometers.”¹² At an academic meeting in September 1940, LFTI head Abram Ioffe downplayed the costs of the nuclear project: “If we are talking about dropping a ton or half a ton of uranium and blowing up half of England—then we should not talk about expenses.”¹³ Another year had passed, and Petr Kapitsa spoke with greater confidence about the “use of atomic bombs, which have enormous destructive capacity.” Kapitsa argued that scientists had to “warn the people about this danger, so that all public figures of the world might try their best to eliminate the possibility of another war, the war of the future.”¹⁴

Why didn’t the Soviet leadership pick up these signals and initiate the Soviet nuclear project before the outbreak of war? One reason was that despite significant developments in nuclear science in 1939–40, leading Soviet scientists still considered the A-bomb a remote possibility, perhaps years away from practical implementation. The Soviet military trusted skeptical scientific authorities and brushed off early proposals for nuclear weapons as a pure fantasy. One interesting example of this attitude was the military’s reaction to Maslov-Shpinel “invention” of the A-bomb. On October 17, 1940, Viktor Maslov and Vladimir Shpinel, researchers at the Ukrainian Physics-Technical Institute (UPTI), wrote to the Inventions Bureau of the People’s Commissariat for Defense with detailed blueprints for nothing less than the atomic bomb! Despite flawed design of the proposed apparatus, it was the earliest attempt by any Soviet scientist to patent a fission weapon.

Maslov and Shpinel pointed to “colossal destructive power” of a uranium bomb—enough, they claimed, to wipe out London or Berlin. Significantly, an atomic explosion would result in radioactive fallout. The

bomb, they claimed, would have “poisoning qualities a thousand times greater than the strongest poisons. . . . Therefore, taking into consideration that for some time after the explosion they [radioactive substances] remain in a gaseous state and would spread across colossal territory, maintaining their qualities over comparatively long time . . . it is hard to say, which aspect (colossal destructive power or poisoning qualities) is more attractive from a military point of view.” Several months later, having heard nothing back from the military, Maslov wrote another letter to the commissariat, this time personally to Defense Commissar Marshall Semion Timoshenko, explaining the “unheard of” power of the atomic bomb and its radioactive effects. In an ambitious move, Maslov even proposed to use enriched uranium as fuel for airplanes, ships, and tanks.¹⁵ Again, Maslov received no reply from the commissariat.

Such muted reaction on the part of the military does not mean that Maslov’s and Shpinel’s proposals were thrown into the dustbin. A-bomb blueprints were passed to the commissariat’s Chemical Research Institute and to the Radium Institute. Military specialists dismissed the A-bomb proposal for having “no practical significance for defense chemistry.” Khlopin at the Radium Institute concluded that Maslov’s and Shpinel’s ideas “did not have a basis in reality” and shared ground with “science fiction.”¹⁶ Faced with such unfavorable appraisals, the Defense Commissariat did not pursue the matter further: A-bomb blueprints were sent to the archive. When scientists could not agree about the feasibility of the bomb, the military could not incur the blame for negligence. Ironically, if the Soviet nuclear research community had made a stronger case for the bomb as a practical necessity, it would have been easier for the physicists to have their voices heard at the top. As matters stood, Stalin probably knew nothing of the bomb before the war broke out. When the war did break out, the bomb sank into insignificance as the survival of the Soviet state hung in balance.

The German invasion of the Soviet Union on June 22, 1941, upset Stalin’s strategic designs. Until the last moment he did not believe that Hitler would open a second front. As German planes bombed cities in Ukraine and Belarus, and Wehrmacht troops poured across the border in the thousands, Stalin procrastinated in uncertainty, withholding imme-

diate authority to return fire, fearing a provocation. Vital hours thus slipped away, and by the time Stalin realized that Hitler had outmaneuvered him, it was too late: the main Soviet forces were being overrun by a well-trained and well-equipped German army. In weeks, Belarus, Latvia, Lithuania, and Estonia were under German occupation. Kiev fell to the Germans in August 1941. In September, the Wehrmacht laid siege to Leningrad. Most of the Soviet industrial and agricultural potential was in Germany's hands before the year was out. As much of two-fifths of the population ended up in areas under German control. Whole armies were encircled and reduced to bands of disorganized soldiers desperately struggling to break through to the east. The first months of war were for the Soviet Union months of unparalleled chaos and agony.¹⁷

As staggering losses on the battlefield became apparent, Soviet industry—or what remained of it after German bombardment—was dismantled and transported to the Urals. There factories were built overnight from scratch to produce essential military supplies: guns, tanks, airplanes, and ammunition. Soviet nuclear science followed suit: research institutes were evacuated from Leningrad and reestablished in the deep rear. Leading scientists abandoned theoretic pursuits for more pressing tasks. For example, Igor Kurchatov, who subsequently brought the Soviet atomic project to fruition, left his nuclear laboratory at LFTI for the Black Sea resort of Sevastopol, where he worked on an unrelated task of protecting ships from magnetic mines. Iulii Khariton, who later became the scientific director of the Soviet atomic project, for a time worked on making conventional explosives for the army.¹⁸ The outbreak of war derailed the Soviet nuclear project and scattered its main protagonists across the vast expanse of the Soviet Union.

Before the war all political power in the Soviet Union was in Stalin's hands. No important decision could be made without his approval. But the needs of war required even greater centralization. On June 30, 1941, the State Committee for Defense (SCD) was organized under Stalin's command. With all state resources at its disposal, the SCD exercised ultimate political authority and imposed orders with an iron fist. The order of the day was "everything to the front lines," full concentration of national efforts on only one single task—repelling the German invasion.

Thus the first resolution of the SCD concerned the production of T-34 tanks. Throughout the war years the SCD issued hundreds of resolutions on issues ranging from the production of tanks and airplanes to the manufacture of Molotov cocktails and even sledges for the Red Army. To make sure that scientific inventions could be immediately applied to the needs of the front line, on July 10, 1941, the SCD organized a special “Scientific-Technical Committee.” Unsurprisingly, the committee did little to encourage nuclear research, which was deemed irrelevant to the state’s imperative of survival in the first few months of war.

Thus ties between science and politics in the Soviet Union both helped and hindered scientific endeavor. It helped to have state support—financial and otherwise—but such support inevitably came on one condition: in order to win respect of the bureaucrats, Soviet science had to have short-term practical economic or defense implications. Nuclear science offered practical solutions only in a remote future, if then, so the Soviet physicists initially experienced difficulties in lobbying for government support—in the construction of particle accelerators, the mining of uranium, and other matters. Bureaucrats were only partly to blame, as we have seen. Many scientists were skeptical of the prospects for applied nuclear science. The German invasion of the Soviet Union postponed indefinitely the modest nuclear research projects already under way. As the German Wehrmacht took town after town, everywhere across the Soviet Union research institutes and leading scientists turned to immediate tasks of defense. The nuclear fission project was temporarily shelved as a peacetime hobby.

Intelligence

There was one organization in the Soviet system that did the same thing in war and in peace—the foreign intelligence department of the NKVD. Spying was integral to the Stalinist state, where citizens spied on each other, but foreign intelligence gathering was in a class of its own, infinitely sophisticated, inherently risky, and perpetually beneficial to the rulers of the Soviet state, who, when they cared to do so, could tap into the spy network to learn about intentions of foreign governments and

even personal lives of foreign statesmen. Stalin was the master of the spy game, but he did not trust his sources. Soviet foreign intelligence in fact suffered in Stalin's purges as much as anyone else—spies were pulled out of the field, arrested for treason at home, and sent to the Gulag. But those who remained in the field kept their eyes open for anything that could interest the Soviet leadership. New military technologies—secret technologies—were always on the list of most wanted items in the Soviet foreign intelligence circles.

The NKVD first became interested in uranium fission in January 1941. The man in charge of foreign intelligence at the commissariat was Pavel Fitin, who at age thirty-three was unusually young for the job. But by 1940s even the NKVD lacked in personnel because so many of its senior-ranking officers had been arrested and executed, giving younger officers a rare opportunity to advance. On January 27 Fitin wrote a letter to the New York station, asking his operatives there to watch developments around uranium fission research in the United States—"apparently, this is a feasible problem," he noted.¹⁹ In his letter, Fitin mentioned that Soviet scientists were also working on uranium fission—a sure sign that the NKVD was at least aware of ongoing research in the Soviet Union and appreciated the need to solicit information on the subject abroad. In any case, Fitin's letter represented a long-term guideline: watch out and be aware of the issue in case anything interesting comes up. That Fitin listed the uranium problem as number 30 in his list of issues to be addressed by the New York station indicates that for the time being the atomic problem was not the NKVD's priority.

Then on September 25, 1941, Fitin received worrying intelligence on the British atomic project. Information came from Donald Maclean, a Soviet agent in Britain. It transpired that the British government had taken interest in developing an A-bomb, that it planned to do so in two years, and that the decision had been made already to "immediately begin building a factory for the manufacture of uranium bombs." A few days later Maclean passed more information to his handler, including technical data on the critical mass of U-235 and gaseous diffusion technology for separating lighter uranium isotopes from natural uranium. Maclean's report pointed also to the "enormous destructive effect of the uranium

bomb” and to the radioactive fallout from explosion, which could “kill all living things that come under the influence of these [radioactive] particles.”²⁰ Although few of Maclean’s revelations would have raised the eyebrows of the British scientists involved in the secret Tube Alloys project, his report to the NKVD represented an important milestone—Soviet intelligence now played a part in the atomic race.

Maclean’s reports traveled for a while within the NKVD bureaucracy. The information was first passed on to Valentin Kravchenko, the head of the 4th Special Department. Kravchenko’s department carried out functions explicable only in the context of the repressive Stalinist regime: it supervised arrested scientists and engineers in their defense-related research. The bright idea reportedly originated with Lavrentii Beria, the chief of the NKVD apparatus. Known for his ruthless efficiency, Beria lamented the waste of the 1930s, when arrested scientists were simply worked to death the Gulag labor camps. Accordingly, imprisoned scientists—people like Andrei Tupolev, the ingenious aircraft designer, and Sergei Korolev, the father of Soviet missile technologies—were brought into construction bureaus to work on weapons development for the war effort.²¹ Kravchenko’s department analyzed Maclean’s materials in early October 1941.

On October 10 Kravchenko reported his findings to Beria. He concluded that intelligence materials were of “unquestionable interest, as a testimony to the great work, which is being carried out in England in the field of use of atomic energy for military purposes.” But despite detailed information in Maclean’s report, Kravchenko believed that the existing materials did not yet amount to an answer to the critical question: can the A-bomb be built? Kravchenko was particularly skeptical of claims about impending construction of a uranium bomb factory in England and suggested that Soviet agents gather verified materials about this questionable facility. Kravchenko recommended that a special SDC committee be organized, staffed with leading Soviet scientists, to consider what steps could be taken in the Soviet Union to advance research on the A-bomb. Despite the many uncertainties that still plagued nuclear research, Kravchenko’s review made it clear that the government’s involvement in the problem was desirable because of “exceptional importance” of potential implications of the A-bomb.²²

What Beria did with Kravchenko's letter remains unclear; in all probability, nothing. Beria regarded foreign intelligence with utmost suspicion, seeing everywhere enemy-planted disinformation. Atomic intelligence, with its expensive implications for the Soviet Union, was suspect: perhaps the enemies had purposefully supplied the NKVD with science fiction scenarios to waste scarce Soviet resources! In any case, the circumstances in the fall of 1941 were not suitable for expensive scientific undertakings of questionable utility. By October, German forces were closing in on Moscow despite fanatical Soviet resistance. On the first of that month orders went out for the government evacuation from the capital: bureaucracy, foreign embassies, archives, treasures, and even the embalmed Lenin in his coffin were shipped from Moscow to the east. Panic prevailed in the capital as thousands of desperate refugees flooded train stations. Looting was widespread and the NKVD terrorized the remaining population, hoping to restore order. Stalin remained in Moscow, determined to hold the capital by all means. Under these dramatic circumstances, Maclean's information counted for nothing more than a curiosity.²³

Maclean's reports and Kravchenko's comments eventually reached the desk of Leonid Kvasnikov, who headed the department of scientific and technical intelligence at the NKVD. In March 1942 Kvasnikov prepared a draft letter from Beria to Stalin, which explained the fundamentals of the A-bomb and summarized intelligence at the NKVD's disposal. The letter claimed that "the supreme military command of England considers decided in principle the question of practical use of atomic energy of U-235 for military purposes." Moreover, the British government apparently had spent generously on the atomic project and drawn the best scientific minds to "particularly secret" work on the bomb. Recommendations furnished in this draft letter again centered on setting up a special SDC committee to coordinate A-bomb efforts in the Soviet Union. It was also suggested that leading Soviet physicists be acquainted with the content of the intelligence materials. The draft letter itself contained interesting technical information (calculation of critical mass and the logistic of the gun-assembly method of detonating uranium, for example), which would have meant little to Stalin but might be appreciated by Soviet scientists.²⁴

The five-page letter even had Beria's name at the bottom, lacking only his signature. But the NKVD chief did not sign the letter and did not send it to Stalin. Beria probably judged that intelligence information on the British A-bomb project was too fragmentary and too suspicious: more was needed before any conclusions could be drawn at the senior levels. Despite Beria's suspicions, NKVD foreign intelligence persisted in efforts to gather more data on the A-bomb. To this end Pavel Fitin instructed the London station on March 15, 1942, to find out about the state of the British atomic project, which, along with chemical and bacteriological weapons, commanded the "exceptional attention" of the commissariat. Twelve days later Fitin directed similar instructions to the New York station. He was explicit: "It appears the problem is very near its practical solution. This problem must be taken up [by intelligence] with all seriousness."

In another cable to New York, London, and Berlin stations on June 14, 1942, Fitin asked for more information "by whatever measures you think fit" on the "theoretical and practical aspects of the atomic bomb projects, on the design of the atomic bomb, nuclear fuel components, and the trigger mechanism." He also wanted to know about "the likely changes in the future policies of the USA, Britain, and Germany in connection with the development of the atomic bomb."²⁵ In yet another cable to London in August 1942, a frustrated Fitin demanded nothing less than blueprints of atomic technologies. "Direction of work—technology," summarized Fitin.²⁶ Fitin's cables indicate his growing alarm over the prospect of the Soviet Union falling behind other nations in the atomic race, with potentially devastating policy implications. He was determined to sniff out nuclear technologies by any means. By the summer of 1942 the NKVD's atomic espionage shifted into a higher gear.

But Beria held back evidence for several months. Intelligence materials piled on his desk, but the NKVD chief played it safe and did not forward them to Stalin. Fortunately, not all Soviet intelligence had to pass through Beria's hands before reaching the highest echelons of power. The Red Army maintained its own network of spies abroad, quite distinct from Beria's *agentura*. The military intelligence, known by its Russian acronym GRU, reportedly received information about the A-bomb from

London in late 1941 but did nothing with these reports for a while, in light of disastrous military situation in the war with Germany.²⁷ On May 7 GRU chief Aleksei Panfilov asked the Academy of Sciences to comment on the claims of intensified A-bomb development in the West: he wanted to know whether the task had practical merit. More than a month later Vitalii Khlopin replied on the academy's behalf that Soviet nuclear scientists did not have any information on the work of their colleagues abroad since the start of the war. Khlopin also predicted that the problem was of remote practical significance and would have no bearing on the outcome of the war.²⁸

Thus assured that atomic intelligence was of no particular urgency, GRU sent materials at its disposal to Sergei Kaftanov, who supervised scientific work at the State Defense Committee. Between August 17 and September 2, 1942, Kaftanov received from GRU 288 pages of intelligence materials on the Western A-bomb efforts.²⁹ Kaftanov's job was to attend to urgent matters to aid the Soviet war effort—for example, production of cheap explosives. Nuclear fission was certainly not on his agenda. But he was at least superficially aware of the A-bomb problem. In December 1941 and March 1942 Kaftanov received letters from a Soviet nuclear scientist Georgii Flerov, who had discovered spontaneous fission of uranium before the war but had enlisted in the air force after the German invasion. Flerov in fact wrote to Stalin, calling for immediate resumption of the atomic project lest the British, the Americans, or—in the worst case—the Germans get the bomb first. Flerov's letters had no effect; Stalin did not see them, though they were not thrown into a dustbin either.

Kaftanov kept Flerov's proposals in the back of his mind. He also had reports from other sources, indicating, for instance, that the Germans were taking the uranium problem seriously.³⁰ According to Kaftanov's recollections, he and Abram Ioffe wrote a personal letter to Stalin, indicating the need to resume uranium research in the USSR. Stalin then summoned Kaftanov and asked how much the project would cost. Kaftanov cited a figure in the millions. Stalin rendered the verdict: "It has to be done."³¹ With Stalin's approval, the atomic project now graduated from ranks of a purely scientific endeavor, acquiring state importance.

On September 28, 1942, the State Defense Committee issued resolution 2352 “on organizing uranium work” in the USSR. The SDC ordered (a) creation of a special atomic laboratory, (b) acquisition of uranium-235, and (c) experimental determination of whether an A-bomb or atomic fuel was a possibility. Stalin wanted answers quickly: April 1, 1943, became a deadline for scientists to prove that the bomb was not a fantasy.

Allocated resources were meager: thirty thousand rubles for purchases of equipment and one gram of radium and thirty grams of platinum for experiments. Space was promised in the provincial backwoods of Kazan for construction of a laboratory. Molotov delayed for another two months a resolution on the mining of uranium, which was of key importance to nuclear scientists.³² But one should not forget, too, the circumstances of this long-awaited resolution. The State Defense Committee was busy with the war effort. Thus on the day when the uranium resolution was adopted, the SDC made orders on the production of T-70 tanks, skis, boats, and snowshoes for the army, as well as chemicals for ammunition plants.³³ The A-bomb project was just one in a series of very urgent projects. That said, resolution 2352 was of great importance just because it was the first resolution on the bomb with Stalin’s name on it. That was not enough in itself for scientists like Kurchatov and Flerov to overcome government red tape, but it was a start.

As a postscript to the story of the first Soviet atomic resolution, let us return to the fate of Beria’s March 1942 letter to Stalin, which contained a summary of intelligence materials on the bomb. Beria finally sent his letter to Stalin on October 6, 1942, pointing out, on the basis of information that the NKVD had received exactly a year before, that the British government “decided in principle” to create the bomb. Beria proposed to involve Soviet scientists—Petr Kapitsa, Dmitrii Skobeltsyn, and A. A. Slutskii—in the atomic project, though these scientists had very little to do with experimental side of atomic fission. Finally, Beria’s letter contained an appendix prepared by Pavel Fitin with year-old technical data on the A-bomb. Beria’s letter highlights the relationship of the NKVD intelligence to the Soviet nuclear project at its very early stages. Suspicious of enemy disinformation, the NKVD chief held up technical and policy documents on the British and U.S. A-bomb efforts. He realized

the importance of these documents only belatedly, when information on the bomb began to reach Stalin from other sources.

Facing the Odds

By October 1942 the Soviet nuclear project was resurrected from its neglected status earlier in the war. Abram Ioffe, one of the most respectable Soviet physicists, was charged with the overall management of the project. It was, after all, Ioffe and Kaftanov who had prepared Resolution 2352 and lobbied on behalf of the A-bomb at the highest reaches of Soviet power. Ioffe, however, was too busy with other things, and too far removed from the nuts and bolts of uranium fission, to play a leading role in scientific work. Instead, he promoted younger cadres to positions of responsibility, in particular Igor Kurchatov, who had not yet turned forty but already had managed to win acclaim in scientific circles for his work on atom fission at LFTI.³⁴ Kurchatov was responsible in 1941–42 for demagnetizing ships, but in December 1942 he took charge of a nuclear lab, hastily assembled at Kazan, a wartime Soviet center for evacuated scientists. On December 15 Ioffe unofficially assigned Kurchatov responsibilities for the Soviet atomic project.³⁵

The first months of work on uranium fission proved the toughest for Kurchatov and his team. The scientists lacked housing and basic laboratory instruments, not to mention sophisticated equipment. Georgii Flerov recalled: “We were paupers when we started our work and had to get our instruments scavenging through surplus at military bases and academy institutes.”³⁶ Flerov himself was sent to Leningrad, still under siege, to bring equipment from LFTI. In harsh conditions Flerov became sick, and it took personal intervention by Kurchatov to have his “exceptionally talented scientific cadre” evacuated to safety with all his equipment.³⁷ Government authorities did not appreciate the urgency of Flerov’s assignment and dragged their feet in furnishing an airplane. Kurchatov’s efforts to bring the leading physicist Abram Alikhanov to Moscow from his wartime assignment in Armenia foundered upon unwillingness of local authorities to provide an airplane to transport Alikhanov and his equipment. Once he made it to Moscow, Alikhanov

fought an uphill struggle to evacuate his researchers and equipment still stuck in Armenia.

In Kazan local government failed to provide housing for research laboratories, despite clear instructions in Resolution 2352 to do so. In Moscow, Alikhanov spent last days of December looking for a suitable site for his nuclear laboratory—his options were either in ruins or in buildings lacking basic utilities, such as electricity and gas.³⁸ Very little could be done under these miserable conditions to advance nuclear research. The problem was in the mindset of the Soviet bureaucrats. Requests made by the NKVD or by the military, meanwhile, were fulfilled with vigor. Beria's agency, for example, could always count on finding housing for interrogation rooms and prisoner cells. The military—especially in wartime—commanded great authority and could be denied by the bureaucrats only at their own great peril. But science—as long as it did not wear a uniform—could always be put off.

On January 23, 1943, Ioffe and Kaftanov admitted in a letter to Molotov that red tape had slowed down the atomic project to an “absolutely inadequate pace.” Molotov was told that “increasing the pace of work and its completion by the set deadline is impossible without your interference.” Molotov interfered on February 11 with a new resolution: work on uranium was to be centralized in Moscow in a special laboratory under Kurchatov's official leadership. Two men were put in charge of the oversight of the project: Sergei Kaftanov and Mikhail Pervukhin, commissar of chemical industry. Reshuffling of management and centralization were supposed to remedy inadequacies of early months of the atomic project. Kurchatov was given a new deadline: to come up with a definite answer about the feasibility of the A-bomb by July 1, 1943.

Despite Molotov's involvement, conditions for scientists did not markedly improve. In Moscow, too, Kurchatov's laboratory space was desperately inadequate: he had one three-floor building, which contained equipment, a library, and housing for scientific and auxiliary personnel; and one other single-floor building, formerly used by the Institute for Experimental Medicine to lodge the dogs for animal testing. The laboratory kept its precious stock of four grams of radium in the potato storage, for lack of a suitable room. By 1944 many scientists badly needed by

Kurchatov were in the Ural Mountains and in Leningrad: in Moscow the black-bearded chief of the Soviet atomic project still had not found a place to house them. In part, such unappealing work conditions were to be expected: war still raged on the front, and luxuries were out of question. The Soviet leadership did not yet care enough for the atomic program to attend to daily needs of its desperate scientists.

Neglect was especially manifest outside the laboratory, at the level of the people's commissariats responsible for the material side of the atomic project. The problem began with uranium, a starting point for the bomb. In November 1942 the State Defense Committee instructed the Commissariat for Nonferrous Metals to begin mining uranium in small quantities and to process it at a factory in Taboshar in Tajikistan.³⁹ Two years later uranium was still scarce. The author of an internal inquiry on November 1, 1944, concluded that "in the last two years prospecting of uranium . . . remained almost where it was." Processing of uranium was not far ahead. The problem, it turned out, was that the Commissariat for Nonferrous Metals "did not pursue these tasks, spending niggardly forces and funds on them." Metallic uranium of the kind needed by Kurchatov for his work "was not being produced and is not being produced."⁴⁰ Kurchatov in late December 1943 still received metallic uranium on the order of grams, whereas he needed something more on the order of tons.⁴¹

Lack of uranium was a serious problem for the Soviet atomic project, but it was only one fragment of a bigger picture: without more active government involvement and all-sided support, the A-bomb would never make it beyond the drawing board. On May 19, 1944, Kurchatov appealed directly to Stalin. In his letter he made it clear that the A-bomb was possible, if only the state could be brought to commit necessary resources. Pervukhin prefaced Kurchatov's letter with a note of his own: "In order to catch up with the foreign [countries] we must make the development of the uranium problem into the task of first-rate State importance."⁴² To get things moving in the right direction Pervukhin proposed to entrust oversight of the atomic project to Beria. In effect, Pervukhin's idea was to sideline Molotov, who unofficially (and perhaps unproductively) had supervised work on uranium since September 1942,

turning the project over to the most efficient, if brutal, Soviet organization—the People’s Commissariat for Internal Affairs.

Molotov did not mind removing the A-bomb from the list of his concerns. He noted on Pervukhin’s letter: “*Important.*—Report to Comrade Stalin.”⁴³ The Soviet leader apparently agreed. Beria, for his part, must have abandoned his former skepticism about the bomb and embraced Pervukhin’s suggestion readily. He undoubtedly realized personal dividends from supervising a project of such historic significance. In the fall of 1944 Beria in fact lobbied to have all uranium-related work transferred to the NKVD—from Kurchatov’s laboratory to uranium extraction and processing. Although Kurchatov retained his independence, on December 3, 1944, the State Defense Committee entrusted Beria with oversight of the entire atomic project.⁴⁴ This reorganization opened up promising opportunities for Kurchatov and his team. After two years of futile struggles with bureaucrats, Kurchatov stood in the shadow of an organization with vast resources, an organization with a name that sent chills down the spines of bureaucrats.

Intelligence and the Bomb

Even before Kurchatov assumed responsibilities for the Soviet atomic project, Molotov supplied him with a thick stack of documents on the A-bomb research abroad. For several days Kurchatov labored over intelligence materials, and on November 27, 1942, he summarized his findings in a report to Molotov. Kurchatov welcomed “fairly important data” in the intelligence reports, which showed that Soviet science “*fell behind considerably* [Molotov’s emphasis] from science in England and America.” Although he was not convinced yet that the A-bomb was possible, Kurchatov appreciated the confidence of the British scientists. He was painfully aware that “the possibility of such a terrible weapon as a uranium bomb appearing in the war could not be excluded.” The trouble was that intelligence materials available to Kurchatov documented British efforts only through 1941. What new discoveries could have been made in the West in one year? Kurchatov considered it a “task of first-rate importance” to find out.⁴⁵

It should be said that Kurchatov did not depend on foreign intelligence in his work on uranium fission. The theory of the atomic explosion was well understood by the Soviet scientists. It all came down to (a) mining uranium, (b) enriching uranium with the U-235 isotope, and (c) making the bomb. Though Kurchatov immediately ran into problems with step a, he pressed on to obtain a machine for isotope separation, step b. To this end he placed an order at a factory in Ufa to make a centrifuge isotope separator—an authentic apparatus for filtering out lighter uranium isotopes, developed by Fritz Lange, a German émigré who had lived in the Soviet Union since the mid-1930s. Construction of the isotope separator was predictably delayed because of red tape (Ioffe and Kaftanov even addressed Molotov on January 23, 1943, in an attempt to overcome delays) but by April 1943 the centrifuge had already been tested in Ufa, though it did not yet work properly. No doubt, with time the problem of isotope separation would be solved in the Soviet Union even without foreign intelligence materials.

But time was one thing Kurchatov did not have. Realizing that Soviet nuclear scientists were years behind their colleagues in the West, Kurchatov did not hesitate to make good use of intelligence materials, if that could help him skip ahead in developing the bomb. Such intelligence materials reached his desk in early 1943. It turned out that Western nuclear scientists preferred a different method for isotope separation—diffusion of a gaseous form of uranium through tiny filters. In report to Pervukhin on March 7, 1943, Kurchatov did not hide his astonishment: “Preference of the diffusion method to the centrifuge method was unexpected for our physicists and chemists.” On the basis of new materials Kurchatov now opted to conduct research on the diffusion method in the USSR. Lange’s centrifuge was not abandoned, but by 1944–45 the diffusion method was adopted as the best way to separate uranium isotopes in the amount needed for the A-bomb.⁴⁶

Another shortcut, of which Kurchatov learned through intelligence materials, concerned the possibility of using plutonium for detonating an atomic weapon. Isotope separation was unnecessary for production of plutonium: the rare element was obtainable from a uranium reactor (blocks of uranium intermixed with heavy water or graphite). In his as-

assessment of the importance of this discovery, Kurchatov wrote: "For the Soviet physicists such a claim [about plutonium] was also unexpected and contradictory to the established point of view." On March 22, 1943, Kurchatov reported to Pervukhin on his thoughts about a plutonium bomb: "Prospects of such a direction [of work] are unusually fascinating. . . . As one can see, with such a solution to the whole problem, the necessity of separating uranium isotopes is eliminated."⁴⁷ As a result, Kurchatov resolved to build his own nuclear reactor. The first Soviet A-bomb would be a plutonium bomb.

Foreign intelligence reports therefore proved exceptionally important for the Soviet atomic project. Kurchatov certainly thought so, as evidenced in his appraisal of materials furnished through NKVD and GRU channels: "of enormous, invaluable significance for our State and science" (March 7, 1943), "of exceptional interest" (April 29, 1943), "of enormous interest" (July 4, 1943). On July 30, 1943, Kurchatov reported to Molotov that intelligence materials had "sharply changed the status of the problem" and made the prospects for the A-bomb appear much closer than previously thought.⁴⁸ In August 1945 Kurchatov and his colleague Isaak Kikoin summarized early work of their laboratory in the following terms: "Since the laboratory had no building, equipment, cadres, or uranium, its work came down to analysis of obtained secret materials about the work of foreign scientists on the uranium problem, to calculations to test these data, and to the conduct of occasional experiments." It was not until late 1944 that the Soviet atomic project really began in earnest.⁴⁹

By that time Kurchatov not only knew that the bomb could be made; he knew of several ways to make it. He knew about choices made by his colleagues in Britain and the United States, and these choices clearly played into Kurchatov's own choices at the crucial juncture of the Soviet atomic project. Kurchatov's extensive reliance on intelligence materials was not universally appreciated. The nuclear heavyweight Petr Kapitsa complained to Stalin on November 25, 1945, that the Soviet atomic project depended too much on the developments in the United States. "We want to try everything that the Americans have done, and have not attempted to take our own road," argued Kapitsa.⁵⁰ Kapitsa's views were

dismissed out of hand. The bomb was too important to Stalin to indulge in scientific experimentation for the sake of proving Soviet originality. Atomic intelligence, which initially was swept under the carpet by suspicious Soviet apparatchiks, in the end came to play a prominent role in the making of Stalin's bomb.

Stalin's Outlook

Stalin's decision to upgrade the status of the atomic project roughly coincided with a decisive change of winds on the eastern front. The Wehrmacht had lost thousands of soldiers frozen within sight of the smoldering ruins of Stalingrad; also lost was the myth of German invincibility. In July 1943 Germany suffered a crushing defeat at the battle of Kursk. By early autumn Orel, Belgorod, Bryansk, and Kharkov were again in the Soviet hands. Kiev was recaptured in November. The Red Army was no longer the army that had retreated in chaos from advancing German units in the summer and fall of 1941. It was better equipped and more experienced. On the battlefield, it outgunned and outmaneuvered the Germans; in the rear, it was supported by a powerful war economy. By early 1944 the Soviet Union was well on its way to regaining territories lost to Germany over the previous three years, but Stalin was no longer content with the status quo ante: his gaze reached further into Eastern Europe and East Asia than at any time before the war.

How did Stalin's postwar plans square with FDR's vision of an international order based upon Wilsonian principles? Not at all. Stalin and Roosevelt lived in different worlds. Their worldviews were more than mutually contradictory; they were fundamentally incompatible at the level of basic philosophical principles. Stalin not only refused to believe in FDR's liberal world order, but he did not believe that his U.S. counterpart honestly entertained such idealistic visions. Stalin's postwar world retained the essential characteristics of the prewar one. Even as the Soviet armies smashed German defenses and rolled into Eastern Europe, the Soviet ruler's first concern was Germany's eventual resurgence. Here Stalin had no doubts: "I hate the Germans. But hate should not prevent us from evaluating the Germans objectively. The Germans are a great

people. Very good technical workers and organizers. Good, naturally brave soldiers. It is impossible to destroy the Germans. They will remain. . . . We Slavs must be prepared for the possibility that the Germans get back on their feet and go on the offensive against the Slavs.”⁵¹

Stalin estimated that it would take about twenty years for Germany to become a menace to Soviet security once again. This eventuality could be postponed by dismemberment, occupation, and deindustrialization, but it could not be put off indefinitely. In the meantime, Stalin expected to consolidate Soviet control over Eastern Europe—sufficient for making sure that none of Soviet neighbors become “corridors” for invading Russia in the future.

This was especially important in the case of Poland. Time and again in conversations with prominent Poles and foreign dignitaries, Stalin emphasized how vital Poland was for Soviet security, and how essential it was to make sure that postwar Poland would be on friendly terms with the USSR. U.S. policy makers understood the Soviet preoccupation with security and offered assurances that a democratic Poland need not be unfriendly to the Soviet Union. Yet these assurances failed to impress Stalin, who suspected that a “democratic” Poland in the sense that the United States was championing would be merely a smoke screen for Western efforts to create a cordon sanitaire around the Soviet Union.

U.S. Ambassador in Moscow Averell Harriman neatly summarized Stalin’s position on the Polish issue in a cable to President Truman on June 8, 1945: “I am afraid Stalin does not and never will fully understand our interest in a free Poland as a matter of principle. He is a realist in all of his actions, and it is hard for him to appreciate our faith in abstract principles. It is difficult for him to understand why we should want to interfere with Soviet policy in a country like Poland, which he considers so important to Russia’s security, unless we have some ulterior motive.”⁵² Perhaps Harriman fully appreciated the depth of the chasm that divided Stalin from U.S. policy makers, though later in his cable he indicated that Stalin was actually more reasonable than Molotov (a gross misrepresentation) and that some of the difficult problems in the Soviet-American relations could be resolved if only Stalin could meet with U.S. policy makers more often.⁵³

Stalin indeed had no doubts that his World War II allies were constantly looking for opportunities to undermine the Soviet Union in all possible ways: “The British and the Americans . . . would like to create a reactionary government . . . everywhere, wherever they can pull it off.”⁵⁴ Poland was one such potential site for a Western coup in the making, and Stalin kept a vigilant eye on the Anglo-American approaches. As he explained in January 1945, “They, bourgeois politicians, are very sensitive and revengeful. You should keep your feelings under control. If your emotions rule you—you will lose.”⁵⁵ A tough confrontation with the West loomed, Stalin knew. In one meeting with Milovan Djilas of Yugoslavia he “waved his hand over the [map of the] Soviet Union and, referring to the British and the Americans, exclaimed, ‘They will never accept the idea that so great a space should be red, never, never!’”⁵⁶ This was said before the end of war, before Hiroshima, and yet these words amply describe Stalin’s postwar outlook. There was no appreciable difference in Stalin’s strategic calculations before, during, or after the war. The players may have changed, but it was the same game all along.

There is no telling how the knowledge of the bomb-in-the-making affected Stalin’s entrenched perspective. All circumstantial evidence points in one direction: this knowledge further intensified Stalin’s mistrust of the Allies. The secrecy of the Anglo-American atomic project, of which Stalin knew by 1942, did not inspire his confidence. There is also some indirect evidence that Stalin learned through his intelligence network about the secret 1943 Quebec agreement between FDR and Churchill to deliberately deny the Soviet Union the know-how for making the bomb.⁵⁷ Like the prolonged delay in the opening of the second front, the Allies’ silence on the atomic project gave Stalin a reason to suspect duplicity on their part, to think that they had, as Harriman put it quite accurately, “ulterior motives.”

Stalin’s *realpolitik* ruled irrelevant the distinction between fascism and democracy; there is no doubt that the wartime alliance with the West meant the same thing for him as the Soviet-German nonaggression pact had meant before the war. In January 1945 he explained his philosophy to a visiting delegation of Bulgarians and Yugoslavs: “The crisis of capitalism is manifested in the division of the capitalists in two fractions—

fascist and democratic. The union between us and the democr[atic] fraction was established, because the latter had interests not to allow Hitler's hegemony, because this brutal hegemony would lead the working class to extremes and to the destruction of the capitalism. Now we are with one of the fractions against the other, but in the future, we would turn even against this one too."⁵⁸

Though Stalin was certain that the Soviet Union's interests were fundamentally incompatible with those of the Western Allies (here, ideological imperatives of Marxism-Leninism usefully coincided with Stalin's realpolitik to predict the same outcome), he left open the timing of the next conflict with the West. The Soviet Union was devastated by war: its population was reduced by several millions; much of its industry lay in ruins. Despite his second thoughts about the Allies, Stalin had to play it safely or risk a premature confrontation with the West—a confrontation that he knew the Soviet Union could not easily sustain. Under these circumstances, Stalin opted for short- to medium-term cooperation with his wartime allies.

In 1943 Stalin disbanded the Comintern in a move meant to show that he no longer wanted to Bolshevize the world. Instead, the Soviet dictator expected that the Western countries would find their own roads to socialism, quite distinct from the Soviet road and without Soviet help. To quote Stalin on this point in January 1945: "But we have to forget the idea that the victory of socialism could be realized only through a Soviet rule. It could be presented by some other political systems—for example, by a democracy, a parliamentary republic and even by a constitutional monarchy. Do you think that if a monarchy like Britain carries out nationalization of the mining industry, the railways, the land, etc., this should be considered a step toward socialism?" Stalin's long-term thinking was evident in his instruction to the French Communists to abstain from radical activities and form a broad united front with the left.⁵⁹ In a similar fashion Stalin discouraged Greek Communists from seeking to overthrow the government.

Soviet policy in Asia evidenced similar circumspection on Stalin's part. In China he chose a limited partnership with Chiang Kai-shek over a greater commitment to the Chinese Communist Party. He did not think

that the Communists, under Mao Zedong's leadership, were capable of capturing power in China for the time being and urged their participation in a Chiang-led coalition government. By November 1945 he had abandoned his plans for manipulating ethnic insurgency in the Chinese Northwest. Great-power compromise, along with a healthy dose of opportunism on Stalin's part (as, for instance, with his gamble to invade the Japanese island of Hokkaido, called off at the last moment), was meant to assure Soviet security interests and help delay another war. But while on the surface Stalin's willingness to limit his ambitions in Europe and Asia suggested parallels with FDR's visions of a new world order, these were merely superficial parallels. Stalin's limited concessions were entirely a product of realpolitik thinking and had nothing to do with kind of international cooperation that Roosevelt had envisioned.

As a skillful practitioner of realpolitik, Stalin appreciated the importance of raw military power. For the time being, consensus among the great powers was possible in Stalin's view, but such consensus was unthinkable except on the basis of the balance of power. Power was measured, figuratively speaking, in the number of guns, tanks, and airplanes. Therefore Stalin directed significant resources even before the war to the modernization of the Red Army. The process was intensified during war years, when encounter with the Wehrmacht exposed inadequacies of Soviet military technology. Dozens of Soviet scientists and engineers worked around the clock to produce better and more lethal weapons for the Red Army. Modernization of the military was Stalin's priority.

Before the war uranium research in the USSR did not advance enough to become of interest to the government. Limited state resources were allocated to projects of immediate practical significance. The rare Soviet scientists who tried to win government support for the atomic project were silenced by skeptical fellow scientists and by wary bureaucrats. The first months of war with Germany compelled abandonment of all nuclear research in the Soviet Union. In the chaos of 1941 the Soviet government had no way of supporting the A-bomb project, even if convincing evidence had existed for doing so. By October 1941 such evidence began trickling in—first from the Soviet spy network abroad, and then from Soviet scientists. Stalin did not trust scientists and spies, but he did not

turn a blind eye to mounting evidence. In September 1942 the State Defense Committee called for resumption of the atomic project.

The scale of the project remained limited. Not convinced by the feasibility of the A-bomb, Stalin was unwilling to waste money on nuclear science when he had other pressing tasks at hand. The war was entering its decisive stage, and all state resources were channeled to the front line. It is in fact surprising that Stalin authorized the atomic project in the first place, and it shows that he was at least aware of the potential significance of the A-bomb. Despite a slow start, between 1942 and 1945 the profile of the atomic project was raised substantially. By 1944, when Beria took over the Soviet atomic project, Stalin had already made up his mind to get the bomb at any cost. In fact, Beria's appointment shows Stalin's realization of the importance of the A-bomb to the emerging postwar balance of power. If Stalin could rely on anyone to organize the atomic project with brutal efficiency in the shortest possible time, Beria was the man.

3

TRUMAN, THE BOMB, AND THE END OF WORLD WAR II

Franklin Roosevelt made American foreign policy—if not military policy—during the Second World War in a manner that would have been familiar to the grand European statesmen of the nineteenth century. He relied heavily upon personal diplomacy with his two main adversaries, Churchill and Stalin, rather than formulating detailed negotiating strategies with advisers and cabinet members. He kept his real convictions and plans, insofar as he actually had real convictions and plans, to himself, rather than submitting them to any kind of policy process in Washington. Roosevelt proceeded after December 7, 1941, under the assumption that he was the unquestioned leader of the country, its sole representative in the cauldron of wartime international politics so unfamiliar to most Americans. Such was his power and reputation in American politics that his regal domination over the nation's destiny in World War II went almost entirely unchallenged until his death in April 1945.¹

His successor, Harry S. Truman, enjoyed no power or reputation in American politics to speak of when he assumed the presidency on April 12. He possessed no experience in foreign affairs at all. His inclination as a midwestern politician had been to express his own views and plans plainly, and yet at the same time he came into office deeply dependent upon the experiences and expertise of the advisers and cabinet members Roosevelt had often excluded from final policy making.² He was therefore neither able nor willing when he became president to assume the kind of personal

control that Roosevelt had wielded easily over the direction of American foreign policy. This would have been one thing had Truman taken office in 1935, or 1955. But he became leader of the most powerful country on earth at the climax of the most devastating war the world had ever seen. He was faced immediately with decisions that would bear directly upon the future orientation of world power, the lives and limbs of millions, and the destiny of his own nation. His counterparts in this game were the hardened statesmen Churchill and Stalin, men who had been making more momentous decisions in an average afternoon than Truman had in his entire career. "Boys," he asked reporters summoned to the White House upon the news of Roosevelt's death, "if you ever pray, pray for me now."³

The personal differences between Truman and Roosevelt surely affected the new president's ability to act as an authoritative statesman during the first five months of his presidency. Stalin must have wondered what kind of opponent he would be dealing with when he heard about Truman staying up all night playing poker with friends on the ship sailing to their summit meeting in Potsdam; one can imagine how the British looked on as Truman was introduced to King George VI on the return home from Germany and rushed to tell the news to a reporter like a schoolboy having met a sports hero.⁴ Experienced advisers to the new president, such as Hopkins, Stimson, and the forthcoming secretary of state, James Byrnes, sometimes seemed to treat Truman as an equal, or even a subordinate, something unthinkable during the Roosevelt years.

One might have reasonably assumed that Truman's inexperience, his modest stature in the world of high international power politics—Stalin referred to him privately as a "noisy shopkeeper"—and his unfamiliarity with diplomacy portended a change in American foreign policy on matters as grave as the atomic bomb and relations with the Soviet Union. This was not the case. Roosevelt, as we have seen, hoped paradoxically to use the atomic bomb both as a stick to intimidate the Soviet Union with respect to its occupation of Eastern Europe and as a carrot with respect to the creation of a serious postwar international order. This, precisely, became Truman's policy as well, though one influenced less by

the possibility of the bomb and more, much more, by its actuality and then its use.

Preparing for the End of the War: April–June 1945

During the first month or so of his presidency, Truman developed a general policy toward relations with the Soviet Union that differed little from that of his predecessor. Like Roosevelt, Truman denounced the Soviet Union's violation of the Yalta accords in Eastern Europe, agreeing with anti-Soviet advisers like Averell Harriman and Secretary of the Navy James Forrestal that the United States must confront Stalin on this issue, especially with regard to Poland. In an April 20 meeting Truman announced that "unless settlement of the Polish question [was] achieved along the lines of the Crimean decision," the United States would not cooperate with the Russians, and that he "intended to tell Molotov just this in words of one syllable."⁵ To the delight of these advisers, Truman indeed scolded the Soviet foreign minister when he visited the White House, famously barking at the indignant diplomat, "Stick to your agreements and you won't get talked to like that."⁶ Critics of Russia in the Department of State, in particular, began to work in earnest to convince Truman that the Soviet Union would be impossible to cooperate with: representative of their views was the argument of the Soviet specialist George Kennan, who wrote in a memorandum for the president on April 23, "Soviet policy will remain a policy aimed at the achievement of maximum power and minimum responsibility." Stalin would not compromise and deal like the domestic politicians Truman was used to.⁷

Like Roosevelt, however, Truman never intended during the early days to allow Soviet transgressions in Europe to derail American plans to establish a working postwar international order. In the April 20 meeting Truman added that "the truth of the matter was that without Russia there would not be much of a world organization"; again following the lead of FDR, he did not urge Marshall or other military aides to do anything to prevent the Russians from consolidating their control over the whole of the continent east of Berlin. He signed an order eliminating

Lend-Lease after V-E Day in May, but this was hastily rescinded after Soviet protests. To prevent Stalin's domination of Europe from Germany eastward would have required military action and the open abandonment of Roosevelt's vision of the postwar order. Truman was unwilling to consider either possibility, much less both of them.⁸

Indeed, it is possible that Truman at the outset of his presidency was more disposed toward cooperation with the Soviet Union than Roosevelt had been at the end of his. Truman believed in the idea of international government more earnestly than his predecessor, even if he had not thought through what such a government would entail. He identified with Stalin in a way Roosevelt never could: the Russian leader, Truman later said, was "as near like Tom Pendergast," the Democratic Party boss in Kansas City whom Truman had served under, "as any man I know."⁹ Most of all, the Soviet Union was the nation that would be going to war against Japan in several months, something that would make the American invasion of that country less miserable than otherwise. These considerations led Truman initially to adopt a cooperative, or at least diplomatic, stance toward the Russians. The atomic bomb, Roosevelt appeared to have concluded, might allow the United States to confront the Soviet Union more confidently without wrecking the postwar system, and it might obviate a ghastly invasion of Japan. If Truman had made the same connection, his policies had not yet begun to reflect it.

The Bomb and the End of the War with Japan, April–June 1945

Truman's initial inclination to pursue cooperation with the Soviet Union alarmed anti-Soviet figures in Washington, particularly the State Department. On one hand, these officials hoped to revive American outrage about Stalin's violation of the Yalta agreements, particularly in Poland, but by late April this was already becoming a kind of dead letter for American foreign policy. Truman understood no less than Roosevelt that the United States could do nothing about Soviet power in Eastern Europe unless it was prepared to wage war there, something that

neither Truman nor any conceivable American president in 1945 could even consider. After the Yalta agreements—indeed, after the Teheran talks in 1943—the position of American foreign policy on this questions was simple: the United States would accept whatever the Soviet Union did in Eastern Europe, apart from issuing protests and expressing indignation.¹⁰

According to his memoirs, Truman learned of the bomb the day he took office, April 12. That afternoon Stimson told him in general terms about a project that could produce a weapon of “almost unbelievable destructive power”—Stimson would give him more definite information soon. The next day, however, Byrnes also briefed him on the atomic project, telling the president (again, according to Truman’s memoirs), that “the bomb might put us in a position to dictate our own terms at the end of the war.”¹¹

On April 25 Truman received the news from Stimson that in all likelihood an atomic bomb would be ready for use by the beginning of August.¹² Hindsight encourages us to presume that from this moment onward the bomb became the leading factor in the president’s thinking toward Japan. It may have begun to play that role for many of his advisers—particularly, as we shall see, Byrnes—but Truman’s behavior during May and June suggests that he was not yet ready to rely upon the bomb. Unlike his major military and diplomatic advisers, Truman had not become accustomed to factoring the bomb into his considerations of foreign policy. He was strikingly unfamiliar with atomic science and exhibited no real interest in learning about the bomb’s development. For Truman, the “assurance” of a bomb by early August came from military and scientific people he did not know well, and it had to do with a project that he did not wholly understand.¹³ In assessing all foreign policy problems, but especially the novel one of atomic weaponry, Truman was forced initially to rely upon his own instincts and predispositions. On this score, the president’s attitude toward the new weapon suggested a view that technology, particularly technology of this profound nature, could not be relied upon in the making of high policy until it had been demonstrated to work.¹⁴ That represents the classic American (and Missourian) distrust of abstraction.

If Truman was reluctant in the spring of 1945 to rely upon the atomic bomb for the purposes of ending the war, he had no time at all for the even more abstract question of its international control after the war. Roosevelt, as we have seen, had given some attention to this question in 1944, and while McGeorge Bundy suggests that “we must suppose that in the end he would have made the matter his most pressing business,” it is far from clear that he would have been willing to do so amid the tense work of finishing the war in Europe and preparing for a final campaign against Japan.¹⁵ For Truman, learning on the job, it was not even an issue. Focused entirely upon immediate problems, Truman turned his attention during May and June to the great prospect of achieving Japanese surrender. Two issues dominated his thinking: the question of modifying the policy of unconditional surrender, and plans for the land invasion of Japan. While he for the most part excluded the bomb from his thinking about these questions before July, they nevertheless came to affect American atomic policy later.

Many leading officials, including the influential undersecretary of state and Japan specialist Joseph Grew, James Forrestal, Admiral William Leahy, and Stimson himself, had reached the conclusion by early 1945 that the United States must communicate to the Japanese its willingness to allow the imperial throne to continue following surrender.¹⁶ This was a clear deviation from the policy of unconditional surrender, but, these officials argued, it was a necessary one. They believed that the throne was regarded by the Japanese masses in clearly religious terms, an intense emotion during peacetime turned fanatical after years of total war. It was therefore likely, if not certain, that the Japanese would fight on to the “last grandmother” if they had reason to believe that the American victors would put an end to the throne—or even execute the emperor, as rumors flying around Tokyo had it. Aware of the suicidal resistance not only of the Japanese army but also of civilians during the recent battle over Okinawa, a chain of small islands hardly essential to Japan’s survival, Grew and Forrestal warned Truman that a continuing policy of unconditional surrender would mean facing an army consisting of the entire population of Japan when the invasion was launched later that year.¹⁷ By suggesting to the Japanese govern-

ment that some kind of figurehead monarchy could be retained after the war, the United States might secure an early surrender before any invasion became necessary—or, at least, less zealous resistance upon invasion.

Truman understood that this was a politically risky solution, as the American public had been sold on the idea of total victory since 1941, and as many thousands of American soldiers and sailors had already died in the grim island campaigns over the past year, battles that had been justified as necessary to achieve unconditional surrender. But the benefits were even more compelling: an early Japanese surrender would preclude Russian entry into the war, stopping the Soviets not only from participating in the occupation of Japan but also from advancing through China on the way. More important to Truman, compromise on the throne would allow the United States to avoid a ground invasion of Japan later in the year, and the tens of thousands of American casualties that would entail.

Truman liked to cultivate a reputation as a decisive president, but on this question, as on many others, he declined to act authoritatively. He could have ordered the State Department to go ahead with its plan to communicate the American willingness to modify unconditional surrender and in particular the question of preserving the throne to Japan, but instead he equivocated throughout May and June, agreeing with advisers both in favor of and opposed to modification.

On May 8, the formal date of victory in Europe, Truman announced in a public address to the American people that the United States continued to seek unconditional surrender, though that it did not wish to “exterminate” the Japanese people.¹⁸ This pledge fell far short of the hopes of Grew and his colleagues, who urged the president a week later to consider making a more substantial offer. Grew emphasized that the emperor could serve as a catalyst after the war; that he could rally the Japanese people behind a Western, pro-American government that could resist Soviet pressure. Truman continued to equivocate. On May 11 he told his colleagues that he assumed that the Soviet Union would participate in a Pacific war—a clear indication of his determination to demand unconditional surrender; yet in a meeting with Grew and Samuel Rosen-

man two weeks later, in which Grew made an elaborate, historical case for preserving the throne and isolating the hardcore militarists, Truman told Grew that he had “been thinking along the same lines” and authorized him to schedule a high-level meeting on the subject.¹⁹

Frustrated by Truman’s unwillingness to commit to one position, Stimson, Grew, and Forrestal in June formed a “committee of three” dedicated to persuading the president to accept the single condition of preserving the throne.²⁰ They saw as their main adversary James Byrnes, a longtime aide to Roosevelt, now an unofficial adviser to Truman, and soon to be secretary of state. Byrnes continually stressed to Truman that abandonment of unconditional surrender would be politically costly, and he added to this the warning that modification would simply be taken by the militarists in Japan as a sign of American fatigue and a reason to hold out for further concessions.

By the middle of June, however, evidence had accumulated for the case of modification. A June 15 report estimated that an invasion of Kyushu, the smaller and less populated of Japan’s two main islands, would cost forty thousand U.S. combat deaths, a number considerably higher than the shocking casualty toll at Okinawa.²¹ No estimate had yet been made for the later invasion of the larger island, Honshu, but it was certain to be even more devastating. Three days later, Chief of Staff Marshall predicted that Japan would continue to fight after the fall of Kyushu and after the anticipated Soviet entry into the war: for Marshall, the Japanese tenacity in defending minor islands in the Pacific had to be multiplied severalfold when considering battle plans on Japanese soil.²²

Stimson, Grew, and Forrestal used this grim information to press Truman to reconsider unconditional surrender. They urged him to commit to a statement they had drafted assuring the Japanese that the imperial throne would be preserved after the war, but Truman would agree only to consider a memorandum Stimson had prepared outlining a four-power statement to Japan.²³ This draft statement simply demanded that the Japanese immediately surrender and promised that Japan would not be exterminated as a nation.

During the three months between his rise to the presidency and the start of the Potsdam conference, Truman resisted the temptation to in-

corporate America's imminent possession of an atomic bomb into the plans for securing Japanese surrender. Because he was also unsure about how strongly to pursue a Russian commitment to participate in the Pacific war, and also about whether the policy of unconditional surrender should be modified to induce Japanese acceptance of American terms, the United States on the eve of the Potsdam conference possessed no clear policy on Japanese surrender.

While one key explanation for this confusion lay simply in Truman's own indecision, another surely stemmed from the fact that the bomb had yet to be tested. Without a weapon in hand, Truman was unwilling to push his advisers to develop a systematic plan for using the bomb either in the war on Japan or as a diplomatic lever against the Soviet Union. To be sure, other key figures worried more about planning for the use of the atomic bomb: after the defeat of Nazi Germany in May, Henry Stimson turned his attention primarily to the question of the bomb and its role in the postwar international order. But Truman was not particularly interested in such matters—neither the use of the bomb to intimidate the USSR nor the idea of international atomic control, two factors that concerned Roosevelt in 1944, appears to have been very important to Truman during his first months as president. He was primarily concerned with the war on Japan and with ending it with the means he had at his immediate disposal. Because the bomb remained, for Truman, hypothetical, his attitude toward Japanese surrender between April and July would probably have been about the same had the Manhattan Project never existed.

Atomic policy, then, was nebulous during the spring of 1945. Stimson chaired several Interim Committee discussions during this period, including a key session in late May and early June. Despite the committee's mandate to consider the bombardment of Japan, on May 31 several members, including Oppenheimer and Conant, attempted to revive the issue of international control, which had receded from view following Churchill and Roosevelt's apparent dismissal of it in 1944.²⁴ Oppenheimer argued that the secrets of bomb production were certain to get out, and that it therefore would pay to share information with the Soviet Union before the bomb was dropped on Japan. Conant and other scientists

agreed; Marshall suggested that at least some Russian scientists be invited to the test at Alamogordo. Stimson went further:

[the atomic] project should not be considered simply in terms of military weapons, but as a new relationship of man to the universe. This discovery might be compared to the discoveries of the Copernican theory and the laws of gravity, but far more important than these in its effect on the lives of men. While the advances in the field to date had been fostered by the needs of war, it was important to realize that the implications of the project went far beyond the needs of the present war. It must be controlled if possible to make it an assurance of future peace rather than a menace to civilization.²⁵

Byrnes, a relative newcomer to the issue of atomic politics, rejected these ideas. He raised troubling objections: what if the test failed? What if Stalin demanded full participation in the atomic project? Dismissing Stimson's grand rhetoric out of hand, Byrnes demanded that the committee put aside the entire question of international control and the notion of sharing the bomb, and focus instead on the single issue of bombing Japan. He advanced the idea, paradoxical as it must have seemed, that the United States must both keep the atomic secret close at hand and, at the same time, work to improve relations with the Soviet Union.²⁶ On June 1 the committee met again to deal with the less idealistic matter of bombing Japan.²⁷ The majority view was that the bomb must be dropped on a substantial Japanese target. Stimson reiterated his view that a warning would not sway the militarists in Japan, and that, if the bomb dropped on that country failed to explode, it would encourage them even more to fight the Americans to the very end. This was the attitude Stimson communicated to the president after the committee concluded its work, though he added that the United States might hold out the possibility of atomic cooperation with the Russians in exchange for their accepting American demands with respect to Eastern Europe and Manchuria. With no bomb yet available, this was an academic question for Truman.²⁸

Nevertheless, on June 21, with the Potsdam summit approaching, Karl

Compton and other scientists made another bid to convince the president of the merits of international control. Central to their argument was the claim that the secret of the bomb could not be maintained for long and that an American determination to exclude the Russians from the information was therefore a policy of needless antagonism. Above all, American secrecy threatened to destroy the dream of international control: the committee unanimously agreed that "there would be considerable advantage, if suitable opportunities arose, in having the President advise the Russians that we were working on this weapon with every prospect of success and that we expected to use it against Japan."²⁹

Truman, like Roosevelt before him, was cool to the idea. Indeed, like Roosevelt as well, Truman regarded international control as a matter of high policy, an issue to be dealt with not by scientists but by the president and his major advisers. Whatever influence the scientists had had earlier in the war, represented forcefully by men like Bush and Conant, it had ironically dissipated now that the bomb project was almost complete. The scientists' case for atomic idealism may have had some political logic to it in 1943 or 1944; now, they had few cards left to play. It is tempting to inflate the importance of the scientists' embrace of international control in light of their amazing achievements at Los Alamos, their accurate prediction of a rapid Soviet bomb, and the logic of international government in an age of nuclear weaponry. When one is interested in assessing American policy about the bomb after 1944, however, one must recognize that the scientists' actual effect on it had become inconsequential.³⁰

A second meeting surely had a greater effect on Truman: this was a June 18 conference with his major military aides, together with Stimson and Forrestal.³¹ As was typical during the early days of his presidency, Truman allowed the participants to express their own views rather than driving the meeting's agenda himself. Stimson, together with Admiral Leahy, urged modification of the demand for unconditional surrender; Marshall emphasized the difficulties of amphibious invasion and the importance of securing Russian military assistance. As the meeting broke up, Truman asked John J. McCloy, assistant secretary of war, what he thought the United States should do to secure quick victory in Japan:

McCloy replied that the discussion of land invasion was “fantastic,” since surely if the atomic bomb became available this would change American strategy fundamentally. To avoid invasion, why couldn’t the United States combine a promise to preserve the throne with an atomic ultimatum to the Japanese? His proposal elicited gasps from the other participants, but Truman said that this was a “good possibility” and ended the meeting.³²

Accounts of this meeting have a kind of unreal air about them.³³ As skeptical as Truman and his military advisers may have been about the bomb, they surely must have considered before June 1945 the political implications of its use on Japan. As McCloy implied, it was unbelievable that a group of leading American military officials could discuss the perils of a land invasion without taking into consideration a weapon that might obviate an invasion in the first place. What is most telling about this meeting is not that McCloy raised the issue but that it had taken two months for Truman to express an interest in it to his senior military advisers—and that McCloy’s proposal mentioned nothing about using the bomb to intimidate the Soviet Union.

Relations with the USSR

Before the successful Trinity test in mid-July, Truman did not rely in any coherent way upon the prospect of the atomic bomb in his diplomacy toward the Soviet Union and its leader, Stalin. His blustering meeting with Molotov in April was entirely a result of his desire to demonstrate his personal toughness to the Russian, and probably to his advisers as well.³⁴ A Truman emboldened by the bomb would probably not have restored Lend-Lease to the USSR so hastily following its temporary cancellation in May; nor would it have made much sense to send Harry Hopkins in late May to reassure Stalin and discuss the forthcoming joint invasion of Japan were Truman determined in the spring of 1945 to wage tough atomic diplomacy.³⁵

Most important, Truman would have responded more readily to the hints of his advisers that he use the bomb to intimidate the Russians. Stimson characterized the bomb to Truman in mid-May as the high card

of a royal flush, but Truman did not instruct his secretary of war to translate this into any kind of action.³⁶ John McCloy raised the possibility in the June 18 meeting of using the bomb to hasten the end of the war in Japan, but if Truman regarded this as a means of preventing Soviet participation in that war, he did not convey the idea to any aides. Unwilling to rely upon an unproven technology, unschooled in hardball foreign policy, and deferential to the views of his advisers, Truman was no atomic diplomat in the early days of his presidency.

His closest political aide, at least at this time, James Byrnes, may have taken a harder view. Byrnes acted decisively at the interim committee meeting to dismiss the idea of information sharing and to get the scientists to commit to dropping the available bombs on Japan at the earliest possible date. Interestingly, among all of Truman's main advisers Byrnes was also the most vociferous opponent of modifying unconditional surrender; this despite the fact that maintaining that stance ran the risk of massive casualties in an invasion, should the Japanese have withstood the atomic attacks, and that it increased the likelihood of a Soviet participation in that invasion.

Tsoyoshi Hasegawa has advanced an ingenious, deductive explanation of Byrnes's apparently incongruous position. According to Hasegawa, Byrnes's objective was to use the atomic bomb to intimidate Russia and to keep it out of the war against Japan. The most obvious means of attaining this goal was to drop the new weapon upon Japan directly, in order to deprive Stalin of any military justification for deploying his armies in Manchuria, to prevent the USSR from participating in the occupation of Japan, and in general to demonstrate American ruthlessness to the Russians. In Byrnes's view, maintaining unconditional surrender was the most reliable means of achieving this result, as this would ensure a continued Japanese resistance and hence make it necessary to use the atomic bomb. Offering the Japanese assurances about the emperor might persuade them to surrender before the bomb was ready. Or it might, more likely, instigate a lengthy negotiation process between the two nations that would allow the Russians time to send their armies through Manchuria and toward Japan.³⁷

Byrnes had other reasons for opposing unconditional surrender that

Hasegawa plays down, the most important of which was his belief that a public modification of this doctrine would cost Truman badly in domestic politics. The president had already begun to alienate American voters of Eastern European backgrounds and Republican politicians by refusing to confront the Soviet Union seriously over its domination of Poland, Hungary, and Czechoslovakia; by too obviously abandoning unconditional surrender, Truman risked incurring the wrath of the broad majority of the American public eager for a brutal and total victory over Imperial Japan and the emperor who personified it.

Whichever motivation truly lay behind Truman's agreement to maintain the policy of unconditional surrender, the fact remains that the incoming secretary of state was decisive in convincing Truman to resist the demands of Stimson, Leahy, Grew, and others to offer the Japanese clear assurance about their emperor before leaving for Germany. Truman's refusal to modify unconditional surrender was the most important decision he made with respect to the atomic bomb and relations with the Soviet Union before Hiroshima.

Potsdam

At Potsdam, a suburb just south of Berlin, delegates from the United States, Great Britain, and the Soviet Union would meet to discuss the settlement of Europe, plan for the defeat of Japan and the ensuing East Asian order, and solidify the general agreements made by the three powers at Yalta six months earlier. Looming now were two larger issues: the growing friction between the United States and the USSR, particularly with respect to Eastern Europe, and the role of the atomic bomb, the first testing of which was now imminent. Truman had managed to delay the conference for a few weeks in order for it to occur around the time of the atomic test, a clear sign that he hoped in a general way to take advantage of the bomb in his dealings with Britain and the Soviet Union.³⁸ But this move was not preceded by any coherent atomic policy with respect to the Soviet Union. As we have seen, Truman failed to integrate U.S. foreign policy during the first three months of his presidency, regarding instead the three problems of Japanese surrender,

use of the atomic bomb, and negotiation with the Russians as largely separate matters. Not only did these issues remain uncoordinated: Truman also failed to reach any kind of final decision on any of them. He did refuse to modify unconditional surrender, but this was at best simply a continuation of existing policy. The War Department intercepted two Japanese cables just before the conference that confirmed divisions within the Japanese government and the desire of the Emperor Hirohito to stop fighting if the unconditional surrender terms were modified.³⁹ But by this time Truman and Byrnes wanted to see how the atomic bomb would play into their negotiations with the Soviet Union over the Pacific war. That meant waiting for news from New Mexico.

In the meantime the president evinced little confidence. His acute trepidation on the eve of the conference indicated how intimidated he was by the larger-than-life personalities with whom he would be contending in Germany. He admitted to his wife not just anxiety but dread over meeting with Stalin and Churchill; to provide himself with a comfort zone he brought with him, on the USS *Augusta* sailing across the Atlantic, a coterie of poker buddies to drink and play cards with.⁴⁰ These were not the actions of a confident statesman.

A more tangible consequence of Truman's feelings of intimidation was his acquiescence to Byrnes's demand that Henry Stimson remain in Washington.⁴¹ The secretary of war, the leading figure in Washington on matters related to the atomic bomb, was not given passage on the *Augusta*, even though other military men, such as Chief of Staff Marshall, were, not to mention Truman's poker clan. Byrnes excluded Stimson from the list because he correctly perceived the secretary of war to be Washington's foremost advocate of modifying the unconditional surrender policy, a decision that gives weight to the argument that Byrnes had more than domestic politics in mind with respect to this problem. Stimson nevertheless flew to Germany on his own accord and was ultimately sought out by Truman for his advice on atomic matters and for information about the test in New Mexico, suggesting that Truman had simply acquiesced to Byrnes's exclusion of the secretary of war rather than plotting with him to keep Stimson away.

The scientists and military men in New Mexico, however, were about

to give Truman a confidence builder. Early on the morning of July 16, the day Truman arrived at Potsdam, the greatest man-made explosion the world had yet experienced lit up the sky around Alamogordo, a testing site not far from Los Alamos. The plutonium bomb detonated there created a flash of light capable of blinding the observers five miles away, who were careful to wear darkened goggles. The roar of the explosion reverberated throughout the desert for several minutes. Massive clouds shot up from the site, coalescing in a vast mushroom cloud that temporarily filled the sky. A large steel tower erected at ground zero was gone, vaporized by the nuclear blast. Indeed, all that remained within several hundred meters of the erstwhile tower was a smoking, radioactive crater.⁴²

About a day later Stimson, the man Truman had kept off the *Augusta*, received, at his residence in Potsdam, a brief account of the successful test, code-named Trinity. The report was elliptical: his aide George Harrison wrote that the “diagnosis [is] not yet complete but results seem satisfactory and already exceed expectations.”⁴³ Stimson walked over to the “little White House,” where Truman was staying, to give him the news. In what must have been an uncomfortable moment, the president told Stimson he was glad that the old statesman, left behind ostensibly for reasons of health, had decided to make the journey after all.

Initially, Truman seemed to be uncertain about the meaning of Stimson’s report. At the least, he did not take from it the kind of confidence he would exhibit later.⁴⁴ The president pointedly declined to meet Stalin upon the latter’s arrival on the evening of July 17; and when the two leaders did meet on the eighteenth, Truman was content simply to secure from the Soviet leader a promise to join in the invasion of Japan, and to leave Manchuria, through which Soviet troops would march on the way to Japan, open to international trade.⁴⁵ Truman’s pleasure in achieving this commitment revealed his immature view of relations with the Soviet Union: he wrote to his wife boastfully that he had gotten what he had come to Potsdam for on the first day, outfoxing a “smart as hell” Joseph Stalin.⁴⁶ If Truman meant this genuinely, it was a bizarre claim. Stalin had already promised, at Yalta, to enter the war in Japan, though it remains unclear whether Truman and Byrnes had been given a full ac-

count of the Yalta agreements. In any event, such a commitment was hardly an unambiguous victory for American interests; several of Truman's advisers had already urged him to find a way to prevent a joint Soviet occupation of Japan and the Russian expedition through Manchuria that would entail. Furthermore, it is strange that Truman, a veteran "horse trader," would not wonder why Stalin, upon their first meeting, would simply give the American president "what he came for" without demanding serious concessions in return.

It was not until July 19 that Stimson received a clearer report from Washington describing the success of Trinity and the bomb's power. Continuing with the cryptic language, Harrison told Stimson that the "light in his eyes" was discernible "from here [Washington] to Highhold [Stimson's estate on Long Island], and I could have heard his screams from here to my farm [in Virginia]." ⁴⁷ A day later a full, detailed report on the detonation arrived from General Groves, the first unambiguous description of the test. ⁴⁸ Stimson recorded in his diary that Truman—now confident that he really had his gun—was "pepped up" by the new information; the president recorded in his diary that he believed the "Japs will fold up before Russia comes in. I am sure they will when Manhattan appears over their homeland." ⁴⁹ Accounts from different participants at Potsdam agree that Truman exhibited a new confidence in the ongoing negotiations with Great Britain and Russia following Stimson's briefing. But if Truman was to use this new power to enhance American interests at Potsdam, he would have to tell Stalin about it.

Truman, Byrnes, and the dozens of State Department and military officials at Potsdam spent their days negotiating the details of the postwar settlement and occupation of Europe with their British and Soviet counterparts. ⁵⁰ Rather than use the new weapon overtly to influence these discussions, Truman decided to wait until the conference was—he thought—nearing its end before providing the Soviet leader with information about the new weapon. On July 24, a full week after the first news from New Mexico had arrived, Truman casually walked over to Stalin after a plenary session, without his interpreter, the Soviet embassy chief Charles Bohlen, and informed him (in English) that the United States now possessed "a new weapon of unusual destructive force." Be-

cause the president had left Bohlen behind on this well-planned excursion, no formal notes on the American side record Stalin's reaction. Truman writes in his memoirs that Stalin coolly replied that he hoped the United States would put the weapon to good use in its war in Japan, while other observers and the Soviet records state that Stalin simply nodded and said nothing.⁵¹

It was a moment steeped in irony. Truman was surely hoping to impress Stalin without divulging the actual nature of the new weapon; yet as a result of the Soviet spy network, Stalin knew more about some aspects of the project than Truman did, and he had learned of its existence three years before the American president. Truman's communication meant that the long-standing hopes of Conant, Bush, Oppenheimer, and other Americans that the Soviet Union be informed about the bomb had finally been fulfilled, yet Truman surely did not have had international control in mind when he made his comment to Stalin. Roosevelt and, to some extent, Truman and Byrnes had long hoped that the bomb could be used to secure concessions from the Soviet Union over its occupation of Eastern Europe; yet Truman did not inform Stalin about the bomb until after Russian power there was entrenched and the diplomats at Potsdam had recognized it. American planning about the diplomatic uses of the bomb since 1942 had pointed, if not always directly, toward the moment when it could be used to persuade the Soviet Union to accept both international control and American preponderance. When the time came, Truman declined to raise either issue, and did not even tell Stalin what the weapon actually was.

Earlier on the day Truman made his overture to Stalin, he met with Stimson to discuss again the question of Japanese surrender. Stimson informed him—incorrectly, as Hasegawa shows—that Marshall had come around to the idea that Soviet entry into the war was no longer necessary to defeat Japan now that the news from Alamogordo had been confirmed.⁵² Armed with this justification, Truman and Byrnes moved quickly to renege on the agreement Truman had made with Stalin about Soviet participation in the war. Byrnes's theory that the atomic bomb might allow the United States to defeat Japan single-handedly and avert Russian involvement had interested Truman, but he would not commit

to it until he had proof that the bomb would work. Now that he had it, the two men had to undertake the difficult diplomacy of wriggling out of a deal that had been made only a week earlier.

To do this, Byrnes worked quickly with the British delegates at Potsdam to hammer out a declaration of terms to Japan that both nations could agree on. The British, crucially, agreed to Byrnes's demands that no overt assurances to Japan be included in these terms about the retention of the imperial throne. Stimson again registered his opposition to this decision, but to no avail.⁵³ A copy was sent to the Chinese Nationalist leader Jiang Jieshi, which had the two benefits of implying to China that accepting Russian incursion into Manchuria was no longer important to the United States and of making the policy official so as to preclude further modifications. Furthermore, Byrnes obtained Stimson's assurance that the United States could now reliably defeat Japan without the assistance of the Soviet Union. In the space of a few days, Truman and Byrnes had developed a new military policy with respect to the Pacific war that now relied upon the atomic bomb rather than on coalition with the Russians, rejected finally the long-standing demands of Stimson, Grew, and others that the unconditional surrender policy be formally modified, and rather bluntly ejected the Soviet Union from involvement in the terms of Japanese surrender. Following Britain's and China's official acceptance of the American policy on July 25 and 26, the declaration was transmitted by radio to Japan.⁵⁴

The Potsdam Declaration represents the culmination of Truman's haphazard policies on the bomb, Japan, and the Soviet Union during the first one hundred days of his presidency. Before receiving news about the successful Alamogordo test, he had not made up his mind on two key questions: whether to modify the demand for unconditional surrender in order to hasten Japanese capitulation; and whether to use the summit at Potsdam as an opportunity to approach the Soviet Union about working toward a cooperative postwar order. The success of Trinity did not necessitate a negative answer to either of these questions: armed with the bomb, Truman still could have accepted the retention of the throne, and he still could have pursued more substantial discussions with Stalin about U.S.-Soviet relations. That he did not indicates clearly that the bomb en-

couraged him to embrace a more hard-line position on Japan and Russia, irrespective of anything Japan and Russia actually did.⁵⁵ The effect of this policy on U.S.-Japanese relations may have turned out to be negligible, but it was not so in the other sphere.

American Policy Toward the Soviet Union and the Atomic Bombardment of Japan

For a few minutes on August 6, 1945, and then again on August 9, the United States inflicted upon the residents of the Japanese cities of Hiroshima and Nagasaki the most brutal acts of war in recorded history. If one simply relates the number of people killed to the duration of the attack—an arithmetic calculation—and adds to this the horrible and grotesque suffering of those unfortunate enough not to have been killed immediately, and the fact that most of the victims were defenseless civilians, Hiroshima and Nagasaki stand as the worst atrocities ever committed in the history of warfare. Hitler's and Stalin's genocides killed far more, but they were not military operations. The worst of the conventional bombing attacks earlier in the war—Hamburg, Dresden, Tokyo—took far longer to achieve their grim toll, as did the awful scorched-earth campaigns of Nazi Germany in Eastern Europe or Japan on the coast of China. Even the suicidal trench battles of the First World War in places like Verdun, Päschendale, and the Somme occurred over greater expanses of time than the atomic bombings, and the victims of these catastrophes were armed soldiers who had at least some volition over their fate.

The decision to drop the atomic bombs has therefore been the subject of perhaps the most contentious and long-lasting debate in American historiography.⁵⁶ Because of its timing, it also serves as a visceral starting point for debates about the origins of the Cold War and the general nature of American foreign relations.

Central to this debate is a question first raised by Gar Alperovitz in 1965: were the atomic bombs dropped primarily to intimidate the Soviet Union, and to exclude it from the war in Japan?⁵⁷ As we have seen, a conventional account of the decision making of the Truman administration

in the months before August cannot definitively answer this question. Truman never developed or authorized a clear position with respect to the atomic bomb or to the Soviet Union in that year, and, furthermore, he never issued an actual order to drop the bombs in which he explained clearly why he was doing so. They were used by the military as soon as they were ready, a discretion given to the Army Air Force after the Interim Committee meetings in late May and early June and validated, in a way, by the Potsdam Declaration in late July, for the stated reason of ending the war as soon as possible. Truman did not *decide* to drop the bombs in the sense that if he had not done so the attack would not have happened.⁵⁸ He chose, rather, not to cancel the military plans to drop them as soon as possible, the first of which fell on its target while he was sailing home from Potsdam. Some events in history can be shown, after the uncovering of documents and via use of inductive historical method, to have a clear (though never irrefutable) direction from policy to decision to action, a direction attributable to the demonstrated wishes of historical actors. The bombardment of Hiroshima and Nagasaki is not one of them, which is another reason why the event is debated so heavily.

The evidence supporting Alperovitz's claim, that Truman went ahead with the bombardment of Hiroshima and Nagasaki primarily in order to impress the Russians, is circumstantial. Truman and his advisers knew that Japan was issuing peace feelers to several nations and might surrender soon even if the bombs remained in New Mexico. Stimson, McCloy, Byrnes, and Truman all alluded at one time or another to the possibility that atomic bombardment might preclude the Russians from participating in the occupation of Japan, or that it might persuade them to act more charitably in Europe. Certainly, the successful Trinity test emboldened Truman at Potsdam; it was unarguably critical in the U.S. decision to exclude the Soviet Union from the Potsdam Declaration and from the Pacific war's endgame. There can be no denying that the possession of the atomic bomb had an important effect on the Truman administration's evolving attitude toward the Soviet Union in the middle of 1945.

This is not the question, however. The question is: was the desire to impress the Soviet Union the *decisive* factor behind the bombardment of

Hiroshima and Nagasaki? The official justification of the bombings was to avoid American combat casualties in a possible invasion of Japan, a goal that was indeed achieved. Therefore, to make their case, those who would reject the official line must establish that the desire to intimidate the Russians was so much more important to Truman than casualty avoidance that the bombs would have been dropped even if they would not have prevented further American casualties. To turn the question around, if the United States had no reason to worry about the Soviet Union, might the Truman administration have declined to use the bombs, even if it believed that the attacks might shorten the war? This is what we mean by a decisive factor.

As is apparent, a profitable way to address a historical question like this is to employ the technique of counterfactual reasoning. To determine which factor really lay behind a decision like this, when there is no conclusive evidence to solve the debate, it is necessary to conduct a mental experiment—to exclude one factor from the picture, and then ask oneself how things would probably have proceeded.

To contend that intimidation of the Soviet Union was decisive, then, one must accept that Truman might not have used the atomic bombs had there been no reason for the United States to be concerned with Russia—if the “intimidation” factor is excluded from the picture.⁵⁹ Even a brief summary of Truman’s position in the summer of 1945, mentioning only basic points that no historian disputes, reveals this to be an untenable contention. Truman was persuaded that the Japanese were not likely to surrender until they had been wholly defeated. He had received several reports from American code breakers that Japan was seeking a negotiated surrender, but these intercepted communications had to be weighed against the fact that Japan had not once approached the United States directly, and that the missives about negotiation were issued by members of a faction in Japanese politics that was not clearly in control of the government.⁶⁰ Using hindsight, and our access to the Japanese side of the story, it becomes reasonable to suggest that Japan may have been on the verge of surrendering in early August 1945, and that it was bound to do so once the Soviet Union declared war, but no reasonable American at that moment, looking back on the nature of Japanese mili-

tary determination and diplomatic intransigence to that point, could have been confident of it.

Furthermore, like other American and British leaders, Truman had long accepted the terror bombing of German and Japanese cities, and hence did not regard the atomic bomb, certainly at least before it was used, as something totally different from previous weaponry. Therefore, for Truman to have eschewed using the atomic bombs—again, putting the desire to contend with the Soviet Union completely out of the picture—he would have been consciously running some risk of having to initiate a terrible invasion of Japan later that year that would have killed many thousands of American soldiers, in order to avoid using a weapon about which he did not feel tremendous moral qualms. That simply makes no sense. As a former artillery captain in the First World War, and as a president with more affinity for the common man than other American leaders, including his predecessor, Truman would have found it inconceivable to avoid using the bomb knowing that hundreds of thousands of American GIs might, because of that decision, have to land on Japanese shores in November. As a politician with an acute instinct for electoral survival, he would never—never—have left the two finished atomic bombs, bombs for which the American taxpayers had effectively spent \$1 billion apiece, to gather dust in New Mexico and then gone ahead and launched an invasion that would kill the sons, husbands, and fathers of hundreds of thousands of voters. There was no possibility of that happening. The United States could have conducted a demonstration bombing on an unpopulated target in early August, and perhaps it should have taken this step for reasons of moral posterity. But the opponents of this alternative were almost surely correct: if the bomb failed to explode, the militarists in Japan would have been even more emboldened to fight on; if it worked, the political conditions in Japan, as Americans then understood them, were such that it still might not have surrendered. Even a successful demonstration bombing would, in all likelihood, have been followed by the attack on Hiroshima anyway, and then perhaps a later use of a third bomb when it became available.

Robert Messer contends that Truman believed that Soviet entry into the war, promised as we have seen by Stalin on July 18, would by itself

ensure Japanese surrender. In the boastful letter to his wife on that day, Truman wrote, "I've gotten what I came for—Stalin goes to war on August 15 with no strings on it. . . . I'll say that we'll end the war a year sooner now, and think of the kids who won't be killed! That's the important thing." If Truman believed, according to Messer, "that the war would end with Soviet entry in mid-August, then he must have realized that if the bombs were not used by that date they might well not be used at all."⁶¹

But as we have seen, Truman wrote in his diary on the same day that he believed that the Japanese would "fold up before Russia comes in. I am sure they will when Manhattan appears over their homeland."⁶² This indicates a different kind of thinking from that which Messer infers.⁶³ Truman clearly believed that the Soviet entry would hasten Japanese surrender—who would not have believed this?—but this is not at all the same thing as being sure that it would cause them to surrender in August 1945. Indeed, despite his confident words, he could not be sure of any outcome, atomic bomb or not. What he could foresee was that an action he could control, dropping an atomic bomb, would almost certainly cause the Japanese to surrender sooner than they would if no bomb were dropped; he could also foresee that the American public would rise in outrage against him if he declined to drop the bomb and, for some unforeseen reason—the sort of reason that occurs all of the time during war—Japan rallied from its desperate situation, making an invasion of that country necessary. Truman was acutely aware that Germany had been clearly beaten by the end of 1944 but did not surrender until May 1945. Critics of the atomic bombing sometimes seem to forget that Truman could not see perfectly into the future. Without such prescience, Truman wanted to err on the side of killing Japanese rather than Americans.

This counterfactual reasoning makes it clear that Truman would surely have used the new weapon irrespective of the Soviet Union, thus making the argument that impressing the Soviet Union was the decisive factor behind the bombardment unpersuasive. But this reasoning is most effective in explaining his reasons for dropping the first bomb, on Hiroshima. It is less so in explaining Nagasaki.

To understand how the bombardment of Nagasaki on August 9 can be

distinguished from the Hiroshima attack three days earlier, one must recall first of all Truman's stated justification for both. The objective, Truman, Stimson, and others claimed, was to force a Japanese surrender so as to avert a ground invasion later in 1945 and the thousands of American casualties it would have caused.

This objective, as we have just argued, plausibly explains Truman's general decision to authorize his military to use the bomb as soon as it was ready. Thus the decision to bomb Hiroshima on August 6 had nothing to do with that date as such—it was simply the first date after the bombs had been delivered to the Tinian airfield on which an atomic attack was logistically possible.

A decision to bombard a second city with an atomic bomb could be explained just as plausibly by Truman's desire to avoid a ground invasion. What is not so easily explained by this motivation, however, is the *timing* of the second attack. The second bomb was dropped seventy-two hours after the first, which was without question insufficient time for the Japanese government to organize and deliver surrender terms to the United States. If the Truman administration's overarching goal was to force a Japanese surrender before the November invasion, then an immediate second bombardment was unnecessary. The planned invasion—code named Operation Olympic—was scheduled for November, three months away. Surely Truman could see that the United States could have dropped a second bomb one or two weeks after Hiroshima, rather than three days, without putting at any risk the objective of averting Olympic.

But why should Truman have bothered to delay the second bombing at all? Truman signed off on the military decision to use the bombs as they became available, for the reasons we have outlined. If he was as determined to force a surrender as he claimed, and as unconcerned about the moral issues raised by the atomic bombing as we have suggested, then why should he have waited for a week or two to give the imperial government time to surrender? Why not hit them, he may have thought, with the bombs we have, as soon as we have them?

Certainly, Truman was not innocent of this sort of brutal thinking. We can see, however, that he was not entirely guilty of it, either. The president was aware of the debates going on in May and June about con-

ducting a demonstration bombing or targeting an unpopulated area.⁶⁴ He knew of Stimson's order that Kyoto be spared. He knew that the atomic bomb was a unique weapon, which was one of the reasons he left Bohlen behind and told Stalin about it himself. Before leaving Potsdam, Truman understood that the American decision to drop an atomic bomb was momentous.

In the interim between the first and second bombings, moreover, Truman expressed regret about the destruction of Hiroshima. In discussing the devastation of that city with Senator Richard Russell on August 7, on the ship returning from Potsdam, he rejected the idea of continuing repeatedly to hit Japan with atomic weaponry until it surrendered, telling the senator from Georgia that he regretted the bomb's indiscriminate killing of "women and children."⁶⁵ In a meeting with Secretary of War Stimson on August 8, Truman lamented the "terrible responsibility that such destruction" placed upon the United States and upon himself. After the Nagasaki bombing, and before the Japanese surrender, the president ordered a moratorium on further atomic bombing, telling Henry Wallace that the thought of killing another 100,000 people was "too horrible."⁶⁶

Truman was aware of the moral objections to atomic bombardment of defenseless Japanese cities before Hiroshima, and in its immediate aftermath expressed clear regrets about it.⁶⁷ Later, in his presidency and afterward, he sought to justify the attacks on moral grounds on several occasions. Why, then, did he choose not to order that the second bombing be delayed for a short period? As we have suggested, such a delay would not have endangered the one objective that he believed justified the attacks: avoiding the invasion in November. If, all things being equal, he would have preferred not to "kill another 100,000" in Nagasaki, why did he acquiesce to its quick bombing before Japan had time to surrender?

It is here that the timing of the Nagasaki bombing comes into play. Truman wanted to avoid an invasion of Japan and hoped that the atomic bomb would accomplish this. However, obviating a U.S. invasion was not all Truman wanted. He also wanted to preclude a Soviet invasion of Manchuria and a joint Soviet occupation of Japan, something that was likely as long as Japan held out, and a possibility that became far more

tangible when the USSR declared war on August 8, two days after Hiroshima and a week before the promised date.

In other words, Truman wanted not only a Japanese surrender; he, together with his new secretary of state James Byrnes, wanted a *quick* Japanese surrender. By dropping a second bomb immediately, he did no damage to the first objective—a Japanese surrender before November was just as foreseeable with a bomb dropped on the ninth as with one dropped on, say, the fourteenth—but substantially enhanced the chances of the second.

This objective, in turn, explains the most curious decision Truman made at the end of the Pacific war: his sudden acceptance of the Japanese condition that the emperor remain as a figurehead. As we have seen, Truman refused during the first months of his presidency to agree to the requests of Stimson, Grew, and Forrestal that the United States communicate to the imperial government its willingness to accept the retention of the throne, as this concession clearly violated the policy of unconditional surrender. Why, then, did he reverse the position after the atomic bombings, *when an unconditional surrender by Japan was surely much more likely now than it had been before?* There is only one obvious answer to this question: a quick Japanese surrender, before the Soviet Union could commence its participation in the war, was now, and only now, possible.

The diplomatic power exuded by the atomic bomb had its effect on Truman after the successful Trinity test in mid-July. It did not supersede the president's ultimate objective of finishing the war at minimal cost; rather, it encouraged him to pursue a second objective, the possibility of a Japanese surrender without Soviet involvement. That explains why the Soviet Union was excluded from the Potsdam Declaration. It explains why Truman did not order his military commanders in the Pacific to schedule the second atomic bombing only after Japan had enough time to work out a surrender, and why he did not act quickly to postpone it after learning of the destruction wrought at Hiroshima, even though Truman clearly expressed his moral aversions to such destruction. It explains, finally, why Truman readily acquiesced to the Japanese demand that the throne be retained after Nagasaki when he had rejected this idea before August.

Any American president in Truman's shoes would have authorized the use of the first bomb when it was ready. A president who was averse to using another atomic bomb unless and until Japan indicated that it was going to fight on, who was determined to maintain the policy of unconditional surrender, and who was indifferent to the prospect of Soviet expansion into China and occupation of Japan, however, would have acted substantially differently than Truman did afterward. International politics was changing. In this sense, and to put it a bit crudely, we can regard Hiroshima as the final American strike of the Second World War, and Nagasaki as its first strike in the Cold War.

4

RESPONDING TO HIROSHIMA AND NAGASAKI

If the bombings of Hiroshima and Nagasaki had different meanings for Truman, this distinction was entirely lost on Stalin. Direct evidence of Stalin's reflections on the birth of the atomic age is extremely scant—almost nonexistent—but the context of Soviet policy making at the time strongly suggests that Stalin took Hiroshima as a direct U.S. attempt to blackmail the Soviet Union behind the smoke screen of ending the Pacific war sooner. For some months before August 1945 Stalin had sensed mounting American pressure; he had responded to this perceived pressure with a show of resolve. Speaking to a Yugoslav delegation in January 1945, Stalin said that the Allies “recognize only force.”¹ He was referring specifically to the British; Stalin held a higher opinion of Roosevelt, giving the U.S. president extra credit for farsighted accommodation of Soviet interests. But when accommodation failed, Stalin quickly resorted to the language of force in the dialogue with Washington and stuck to his guns on most outstanding issues of Soviet-American relations.

One such sticking issue in the late spring and early summer of 1945 was the sudden U.S. disruption of Lend-Lease aid to the Soviet Union. As early as January 10, 1945—at the height of the wartime alliance—former Soviet Commissar for Foreign Affairs Maksim Litvinov warned Stalin in a memorandum that the United States might attempt to “use Lend-Lease for obtaining economic and political compensation unacceptable to us.” Stalin underlined this statement with a red pencil, perhaps indi-

cating that he agreed with the former commissar's grim assessment of U.S. intentions.² When Lend-Lease was abruptly cut off in May 1945, the Soviet press took a deliberately hard line, while Molotov, in an internal memo sent to the Soviet embassy in Washington, warned the diplomats "not to beg the Americans with regard to the supplies" and "not to come up with your pitiful protests."³ The word *beg*—*klianchnit* in Russian—is often used to describe annoying street beggars; the phrase *pitiful protests* suggests impotence and dependence. Molotov chose these words carefully; they show how important it was for the Kremlin to project the image of pride and unbending resolve, an image not of a pitiful beggar but of a great power.

On May 27 Stalin bitterly complained to the visiting U.S. envoy Harry Hopkins in a memo couched in the third person: "If the refusal to continue Lend-Lease was designed as pressure on the Russians in order to soften them up, then it was a fundamental mistake. He said he must tell Mr. Hopkins frankly that [if] the Russians were approached frankly on a friendly basis, much could be done, but that reprisals in any form would bring about the exact opposite effect."⁴ In this instance Stalin told the Americans exactly what he thought. Those U.S. policy makers who assumed that putting Stalin under a little pressure would make him scale down his demands and thus facilitate an understanding with the USSR failed to take into account the Soviet ruler's peculiar mindset: the more he found himself under pressure, even tacit pressure as in the case of Lend-Lease, the less cooperative Stalin became. No doubt he was equally careful to avoid a premature military confrontation with the West, but limited threats like the termination of Lend-Lease only hardened Stalin's resolve. In this sense, Lend-Lease manipulation fell in the same category as the U.S. atomic monopoly—each was an indirect means of pressure on the Soviet Union, not nearly enough to force Stalin's compliance, but more than enough to ruin the prospects of accommodation.

On the other hand, it could well be that Stalin's uncompromising attitude resulted from his realization that the Allies, all things considered, needed the USSR to defeat Japan and would therefore make concessions and shun a premature conflict. As always, when there is little evidence of Stalin's thinking on a subject, it helps to turn to those around him for

clues. In this case, no one offers more insights than Maksim Litvinov in his letters to Stalin.

In the 1930s Litvinov, as the Soviet commissar for foreign affairs, campaigned for collective security in the League of Nations and brokered better relations with the United States, England, and France. His reputation in the West was that of an Anglophile; Litvinov moreover had Jewish roots, so Stalin purged him in favor of Molotov in 1939 to sign the nonaggression pact with Germany. For two years Litvinov languished in uncertainty, but in 1941 Stalin returned his veteran diplomat to policy circles as the Soviet ambassador to the United States. Starting in 1943 Litvinov worked in Moscow as the head of the Commissariat's Commission on the Peace Treaties and the Postwar Order. In that capacity he prepared analytical memoranda for the leadership about the Soviet Union's postwar relationship with the Allies.

In a memo to Stalin and Molotov on July 3 Litvinov argued that the Allies were "interested that we enter the war against Japan. . . . It is exactly for this reason that they will be more inclined toward yielding [to us now] than after their victorious completion of the war in the East."⁵ This was written shortly before Stalin's departure for Potsdam, at the time of bitter negotiations in Moscow with China's T. V. Soong, which (after considerable Chinese concessions) resulted in the signing of the Sino-Soviet treaty of 1945. The treaty served Soviet geopolitical interests in China—Stalin acquired a military base at Port Arthur (Lushun) and a stake in the Manchurian railroad. Mongolia's status as a *de facto* Soviet satellite was also guaranteed in a generous settlement, which stemmed straight from the Yalta agreement. Stalin knew that he could bargain hard with Soong, because the Americans had already resigned themselves to Soviet gains in Asia in return for Stalin's participation in the Pacific war.

On the other hand, if Stalin shared Litvinov's optimism about U.S. intentions, it is hard to see why he would ask his generals to expedite preparations for a war against Japan, or why he would voice fears to his lieutenants that the United States would not abide by the terms of the Yalta agreement.⁶ Unlike Litvinov, Stalin knew about the Manhattan Project, and, probably, about the forthcoming Trinity test.⁷ But if the atomic bomb worried Stalin at Potsdam, he did not show it when Tru-

man raised the issue. Stalin allegedly told Molotov about Truman's *dé-marche* at Potsdam. Molotov replied: "They're raising the price." Stalin said: "Let them."⁸ If these remarks (which Marshal Georgii Zhukov reported many years later in his memoirs) are in fact accurate, it is still far from clear what exactly Molotov and Stalin meant by "raising the price." The turn of Russian phrase—*nabivat tsenu*—means to speculate in order to boost the price of a commodity. Molotov's expression *nabivat sebe tsenu* would mean to speculate in order to sell oneself more expensively. Molotov probably meant that the Americans were making psychological use of the bomb to appear more powerful than they actually were. On the whole, it appears that Stalin at Potsdam erred on the side of cautious skepticism about the bomb's impact on the balance of power, though he did not rule out that Truman might try to use the U.S. atomic monopoly as a source of pressure on the USSR.

The impact of the bomb on Stalin's strategic calculations before Hiroshima has become a subject of a lively debate in the historiography, represented by a disagreement between Tsuyoshi Hasegawa and David Holloway. Hasegawa argues that the atomic factor had figured in Stalin's thinking since at least 1943, and that in the weeks before Hiroshima he was particularly preoccupied by the prospect of a Japanese surrender if the Americans used the bomb. For this reason, he hoped to enter the war against Japan earlier rather than later, and even made inquiries to this effect to his generals while he was at Potsdam.⁹ Holloway claims, on the contrary, that the bomb was at most of marginal importance to Stalin before Hiroshima, that he was basically oblivious to its military effect, and that his effort to expedite the Soviet entry into the Pacific war had to do with his suspicions that the Japanese and the Americans might achieve some kind of an agreement behind his back, rather than with any preoccupation with the bomb *per se*.¹⁰

Perhaps both Hasegawa and Holloway take their arguments too far. Given the weight of existing evidence, it seems premature to say that Stalin did not care about the bomb before Hiroshima—why, then, was the Soviet atomic project continuously raised in status and passed to Beria's supervision even at the time of colossal strain on Soviet resources? On the other hand, it is true, as Holloway asserts, that Stalin was ex-

tremely suspicious of the prospect of some U.S.-Japanese deal that would exclude the Soviet Union, and he would have wanted to expedite Soviet entry into the Pacific war irrespective of the bomb. With no hard evidence to bolster either position, it is safe to say that Stalin was concerned about the bomb before Hiroshima, but certainly not obsessed, and that he wanted to enter the war against Japan sooner rather than later in part because of the bomb, but also because of other factors.

The Fallout from Hiroshima

While at Potsdam, Stalin did not know how the bomb would alter the balance of power; Hiroshima offered him a chance to see atomic warfare in action. It became a test of Stalin's nerves: he was anxious to know about the first results of the bombing in order to fill in blanks in his strategic calculations. Rather than dismiss Hiroshima as an empty show of force, Stalin at first tended to dramatize its impact. In the middle of August, Stalin allegedly said, "Hiroshima has shaken the whole world. The balance has been destroyed."¹¹ Nothing shows Stalin's anxiety more than his decision to expedite Soviet war against Japan. The Soviet leader had promised Truman to attack Japan in mid-August 1945. But the U.S. bombing of Hiroshima on August 6 forced his hand: he feared that the impact of the A-bomb would be so devastating that Japan would surrender immediately, before the Soviet entry into the war. Stalin told Averell Harriman on August 8 that "he thought the Japanese were at present looking for a pretext to replace the present government with one which would be qualified to undertake a surrender. The atomic bomb might give them this pretext."¹² He was not taking any chances. The USSR's declaration of war against Japan (previously scheduled for August 11) was moved forward to August 9, 1945.¹³

Stalin's decision to begin war against Japan ahead of schedule, and indeed, in the face of such diplomatic obstacles as an agreement in the making with China, shows that he was worried about the effect of the bomb on the military situation in Japan. The bomb was an unknown variable, and for all of Stalin's subsequent bravado to the effect that it could not decide the outcome of war, in the immediate hours after Hi-

roshima, he was not willing to test his luck. Early Soviet entry into the war guaranteed that the Soviet Union would reap the fruits of victory.

Much to Stalin's relief, Soviet specialists who were on site days after Hiroshima downplayed the significance of the A-bomb in their reports. Probably the first Soviet agents in Hiroshima were the Military Intelligence (GRU) officers Mikhail Ivanov and German Sergeev. After Japan's capitulation they left the Soviet embassy in Tokyo, and on August 16, 1945, they got off the train in Hiroshima and requested authorities' permission to visit the site of the atomic explosion. Told that the strangers were in fact Soviet diplomats, a local official desperately tried to persuade them not to go. He warned that the city had been affected by a "terrible disease." Undeterred, the GRU officers struggled across the rubble toward ground zero. They surveyed the damage, took photos, and walked off with samples of melted rocks and a charred human hand. On the following day the shadowy officers showed up at Nagasaki, also reduced to ruins by an atomic bomb. There, Ivanov and Sergeev took more photos and collected more evidence before reporting their findings to GRU headquarters in Moscow. The GRU thus had its people on the scene of the blasts weeks before first U.S. investigators arrived.¹⁴

Yet Stalin's effort to solicit information about Hiroshima and Nagasaki did not end with the GRU. Soviet diplomats in Tokyo were allowed to visit the site of the explosions in September 1945, talk to survivors, and even film the destruction. Ambassador Iakov Malik summarized their findings in a letter to the Soviet leadership, which Molotov circulated to Stalin, Beria, and Politburo members Georgii Malenkov and Anastas Mikoian on November 22, 1945. In his report, Malik dwelt on the massive scale of devastation but did not dramatize it. He noted, for example, that roads and riverbanks suffered very little damage and that "neither streetcar tracks nor things buried in the earth were damaged." The Soviet diplomats blamed the Japanese press for attempts to "exaggerate the destructive power of the bomb and the duration of the effects of the explosion."¹⁵

Evidently, some of these reports from Hiroshima and Nagasaki reached the scientist Petr Kapitsa, for he raised the subject on November 30 in a top secret meeting with Beria and other government functionaries. Prob-

ably on Kapitsa's recommendation leading scientists were instructed to "analyze all available materials about the consequences of use of atomic bombs in Hiroshima and Nagasaki."¹⁶ It is instructive that the initiative to study the effects of the bomb came from below—from the scientists—and not from above. The Soviet leadership was more cognizant of the political effects of the new weapon than of its human cost.

After such "encouraging" reports from Hiroshima, Stalin concluded that a major war between East and West was unlikely for the time being. On November 14, 1945, Stalin explained to the Polish Communist leader Władisław Gomułka: "I am completely certain that there will be no war, it is rubbish. They are not capable of waging war against us. Their armies have been disarmed by agitation for peace and will not raise their weapons against us."¹⁷ Some months later Stalin still insisted that he was not afraid of Western "blackmail" and that "no war is possible now." "They are trying to scare and will try to scare [us], but if one does not allow himself to be scared by them, they will make a little noise and calm down." Eventually another world war was of course inevitable—Stalin consistently held this view—but it would not happen "for twenty years at least."¹⁸

What about the bomb and its impact on the military balance between the great powers? Hiroshima and Nagasaki convinced Stalin that the A-bomb was just another weapon. As he told Gomułka, "Not atomic bombs, but armies decide the war."¹⁹ On another occasion, in an interview with the *Sunday Times* correspondent Alexander Werth, Stalin reiterated that "atomic bombs are meant to frighten those with weak nerves, but they cannot decide the outcome of war, since atomic bombs are quite insufficient for that."²⁰ Atomic monopoly did not give the Americans a decisive advantage in warfare. The military balance had not been profoundly disturbed. For this reason, Washington, in Stalin's view, understood the bomb's limitations and would not dare to start a major war against the USSR. Many years after the fact, Molotov recalled with skepticism, "We realized they [the Americans] couldn't yet unleash a war, that they had only one or two atomic bombs left; [so few bombs] could not have played a significant role."²¹ This realization was a result of Hiroshima and Nagasaki, which apparently led Stalin to believe that

for all the destructive power the A-bomb had only limited use as a weapon of war.

Despite his rather scornful assessment of the A-bomb as a weapon, Stalin had great appreciation for it as a political tool. The fact that the United States had the bomb and the Soviet Union did not have it, weakened Stalin's bargaining position and his great-power claims. The bomb, in subtle political ways, undermined the balance of power between the Soviet Union and the United States, which Stalin treasured as the basis of postwar international order. Yet the Soviet leader made it a point not to be intimidated by the bomb. His foreign policy was in fact all the tougher in the postwar months as he tried to create an impression of resolve in the face of American pressure. Stalin's was indeed a policy of brinkmanship, except that he had nothing to show at the brink. Thus by late 1945 American policy makers found themselves at loggerheads with the Soviets as Stalin tried to bluff his way out of the atomic trap.

Stalin's intransigence showed in the Soviet attitude at the London meeting of the Council of Foreign Ministers in September 1945. The Soviet leader was in fact taking a break from Moscow routine on the Black Sea, but he instructed Foreign Minister Viacheslav Molotov to take a tough line: "Stand firm and make no concessions to the Allies," Stalin cabled his lieutenant on September 12. Overcoming resistance from the Americans and the British, Molotov pushed for consolidation of the Soviet sphere of influence in Eastern Europe. He brushed off Allied interference in the affairs of Romania and Bulgaria and, on Stalin's insistence, even demanded recognition of Soviet rights in the Mediterranean. U.S. proposals on the demilitarization of Germany were dismissed out of hand, while Stalin pushed to have a stake in the postwar administration of Japan. In a cable to Molotov on September 27, Stalin wrote: "The Allies are pressing on you to break your will and force you into making concessions. It is obvious that you should display complete adamancy."²² Stalin believed that Molotov failed to take a sufficiently hard line in negotiations with the Allies.

The Soviet efforts to project power decisively in Europe and Asia in spite of the U.S. monopoly on the bomb was striking: Stalin acted this way only because he doubted that the Americans were ready for a large-

scale conflict with the USSR. Indeed, if anything, Stalin held out a hope for a postwar consensus of great powers based on strict separation of spheres of influence. In this case, naturally he had to put on a brave face to show the Americans that the lack of atomic power did not diminish Soviet status as a great power. As Stalin explained in a letter to his associates: "We cannot achieve anything serious if we begin to give in to intimidation or betray uncertainty."²³

Thus if the bomb was meant to be Truman's trump card in dealings with Moscow, it did very little to force concessions from Stalin. At the London meeting of foreign ministers in September, U.S. Secretary of State James Byrnes resorted to atomic diplomacy in implicitly threatening Molotov: "If you don't cut out all this stalling and let us get down to work I am going to pull an atomic bomb out of my hip pocket and let you have it."²⁴ These hints failed to impress Molotov, who continued to push a hard line. Instead of taking a more cautious stance toward the Americans, the Soviets went out of their way to make it appear that they were not intimidated by bomb, that they considered it an empty threat. As a result, in the months after Hiroshima the Soviet foreign policy hardened considerably despite the emergence of a U.S. atomic monopoly—and indeed, because of it.

Toward International Control

On November 16, 1945, James Byrnes sent to Molotov a joint declaration by the U.S. president and the British and Canadian prime ministers pertaining to international control of atomic energy. The signers of the declaration, which had been announced to the public the day before, acknowledged that "no single nation can in fact have a monopoly" on the use of atomic energy and expressed willingness to share the results of their atomic research in order to contribute to peaceful application of atomic fission. Recognizing that practical information for industrial use of atomic energy could have a dual purpose and lead to development of the A-bomb, however, the three leaders noted that their governments were not prepared to share such detailed information with other countries (the USSR) until "effective enforceable safeguards

against its use for destructive purposes can be devised.” To consider practical recommendations to this effect, the signers of the declaration called upon the establishment of an atomic energy commission under the United Nations.²⁵

The purpose of the declaration could not have been more transparent to Molotov: Washington was unwilling to share A-bomb secrets with the Soviet Union. Molotov circled that part of the declaration with a red pencil.²⁶ Immediate reaction from Moscow was muted, though commentaries in *Pravda* and *Izvestiia* made it clear that the American offer relegated the Soviet Union to a second-rate power status. Nevertheless, the declaration was taken seriously by the Soviet policy makers, as evident in the ensuing debate in the Foreign Ministry about the intrinsic worth of American proposals. The question was not whether or not to agree with the U.S. proposal of abandoning nuclear research for military purposes—the decision to make the bomb had long been taken, and it was irreversible. The question was whether or not to exploit the American proposal to gain short-term advantages for the USSR.

There were two opposing viewpoints on this issue in the Foreign Ministry. Maksim Litvinov was a proponent of a cordial response to U.S. proposals. He did not rule out an accommodation with the West on the basis of separate “security zones” for the great powers. Europe in this scenario would be divided between Britain and the Soviet Union, while America’s role was confined to its security zone in the Western Hemisphere.²⁷ Litvinov anticipated problems that would probably arise in U.S.-Soviet relations after the war. He found it difficult “to outline a concrete basis for positive political cooperation between the two countries, apart from their mutual interest in the preservation of world peace.”²⁸ However, peace made cooperation possible. Inasmuch as both the Soviet Union and the United States desired peace, for at least a few decades, a basis for compromise could be found in the recognition by each side of the other’s interests. World affairs were to be managed through a council of great powers, where the Soviet Union would have the right of veto. Litvinov’s visions were by no means revolutionary. In fact, Stalin shared in his former commissar’s agenda for peacetime cooperation with the Allies.

It is in this light, then, that one should approach Litvinov's memorandum concerning the joint declaration on atomic energy. On November 29, 1945, Litvinov submitted to Molotov a draft response to Byrnes's letter. Litvinov's draft expressed Soviet preparedness to join in the declaration, but with a substantial reservation. Litvinov did not like the idea of an atomic energy commission and proposed to deal with international control through the U.N. Security Council, where the Soviet Union had veto power. Litvinov proposed to send this moderately worded message to the Americans right away. "Further inflaming this issue is unnecessary," he wrote, and he added a few days later: "I have always believed and believe now that, since any talks about the Atomic Bomb cannot produce positive results for us, the most beneficial stand for us is to pay complete indifference to this topic."²⁹

Litvinov's views were opposed elsewhere within the Foreign Ministry establishment. Soon after the joint declaration was made public, the Soviet chargé d'affaires in Washington, Nikolai Novikov, ever tuned to Molotov's sound waves, sent a report to Moscow in which he emphasized that Truman's offer represented "a new tactical approach in relation to the USSR, the substance of which can be reduced to the following: on the one hand, to use the atomic bomb as a means of political pressure to oblige the Soviet Union to accept its [Washington's] will and to weaken the position of the USSR in the U.N., Eastern Europe, and so on, but on the other hand, to accomplish all of this in such a form as to somewhat ameliorate the aggressive character of the Anglo-Saxon alliance of 'atomic powers.'"³⁰ On November 18, 1945, the Soviet embassy in London directed another note to the Commissariat, arguing that the joint declaration was "a means of pressure" on the Soviet Union and that it presented unjustified demands. The declaration was meant to stress the special position of the United States and Great Britain as guardians of the atomic secrets, and, moreover, it "further underlined the unfriendliness of the governments of the USA and Great Britain towards the Soviet Union." It was a clear-cut attempt to "relegate the USSR to a position of a second-rate power."³¹

These reports reflected an ever-present concern in Moscow about U.S. attempts to use "atomic diplomacy" to put pressure on the Soviet Union,

part of an American strategy of blackmail and intimidation. The positive aspects of the joint declaration (sharing of information, control of atomic energy) were entirely overlooked. The logic of Novikov and of A. Stetsenko, the first secretary of the Soviet embassy in London, who wrote the second report, was very much in line with thinking of Molotov himself: in November the foreign minister publicly warned the United States not to use the bomb for atomic blackmail.³² Thanks to declassified reports we can tell now that official propaganda about U.S. “atomic pressure” accurately reflected sentiments in the Soviet policy-making circles.

On December 11, 1945, analysts at the Foreign Ministry prepared a different draft response to Byrnes, putting Litvinov’s proposals aside as too conciliatory. The Americans were accused of trying to maintain a monopoly on the “free use of relevant destructive means.” The draft dismissed the joint declaration and made a number of counterproposals, specifically, prohibition of use of atomic energy for military purposes, cessation of production of the atomic bombs, and destruction of the existing stockpile. Overall, the second draft was similar to the first in one aspect—it ruled out any genuine move toward international control. But unlike Litvinov’s proposal, this draft was written in much more uncompromising tones.³³ The ideological influence was clearly Molotov’s. In the fall of 1945 Molotov, whom Stalin had criticized for leniency in relations with the Allies, pushed a policy of no concessions. He was also eager to claim that the Soviet Union did not fear U.S. atomic blackmail.

The gap between the two drafts was inconsequential. Both in essence reaffirmed Soviet commitment to nuclear weapons. But Litvinov’s proposals did so indirectly, by reference to the Security Council, where of course the Soviet Union would exercise the power of veto on any measure that threatened its security interests. By thus accepting American proposals (with a substantial reservation), Litvinov took a positive view on the dimming prospects of postwar great-power cooperation, but that cooperation was still rooted in his *realpolitik* approach. There was not a trace of idealism in Litvinov’s views on the A-bomb. The second draft, on the other hand, affirmed Soviet national interests in much more brutal manner, in Molotov’s style. By pointing an angry finger at the United States, the draft at same time undermined the spirit of cooperation be-

tween Moscow and Washington. Significantly, the eventual Soviet attitude toward the problem of international control of atomic energy was closer to Litvinov's proposals, indicating that Stalin shared his former commissar's vision of a postwar great-power order.

Moscow Meeting of Foreign Ministers

One of the underlying themes of the joint declaration was the prospect of the United States sharing its nuclear secrets with the Soviets. This was a carrot-and-stick approach: Washington held out a promise of helping the Soviet Union benefit from "practical industrial application of atomic energy," but that promise hinged upon Soviet willingness to abandon pursuit of the A-bomb. Moscow's compliance with these proposals was entirely unrealistic, for peaceful application of atomic energy was not on the list of Soviet priorities at the time. For example, when the first meeting of the Special Committee—the body charged with the overall supervision of the Soviet atomic project—convened on August 24, 1945, Igor Kurchatov's talking points included three references to the atomic bomb (fuel for the A-bomb, design of the A-bomb, and protection from the A-bomb) and not one reference to peaceful uses of atomic energy.³⁴

From what we know it was not until the seventh meeting of the Special Committee, on October 26, that anyone even mentioned the need to study peaceful uses of atomic energy—and that was Petr Kapitsa, whose tenure as a committee member was already approaching its end because of his conflict with Beria. Kapitsa's proposals appeared last on the agenda after all topics pertinent to the A-bomb had been exhausted. Beria instructed the Technical Council to "discuss" the prospects of the atom for peace—a sure indication that he had no immediate interest in the subject. On November 25 Kapitsa appealed directly to Stalin. He argued, "It is silly and absurd to think that the main possibility for using atomic energy will be its destructive power." In Kapitsa's opinion, atomic energy would come to play a profound role in "culture," offering cheap energy for human progress. A week later Kapitsa, in a letter to Beria, proposed the creation of special commissions to study specific matters related

to atomic energy—first and foremost, its peaceful uses.³⁵ These pleas went unanswered. Soon Kapitsa was purged from scientific work for quarreling with Beria. But at the bottom line, the “carrot” of the American proposal—the promise of “specialized information” on nuclear energy for peaceful purposes—had little appeal to Moscow under the circumstances of an all-out commitment to producing the A-bomb.

Policy discussions in Washington about whether to share with the Soviet Union information on the peaceful uses of atomic fission took place at the time when the Soviet intelligence was collecting detailed information about the U.S. atomic project. The stream of intelligence intensified in early 1945. The head of the People’s Commissariat for State Security, Vsevolod Merkulov, reported to Beria on February 28 that the Americans were developing the “implosion method” for starting a chain reaction in the bomb. These materials were immediately forwarded to Kurchatov, who wrote in his appraisal on March 5 that the idea of implosion was of “great interest.” A month later, in another report, Kurchatov wrote that it was now “clear” to his researchers that the implosion method (used in the Trinity test and at Nagasaki) was preferable to the gun-assembly bomb.³⁶

These useful insights from the Manhattan Project were soon corroborated with new evidence about the American bomb. On October 18, 1945, Merkulov sent Beria detailed description of an atomic bomb, obtained through intelligence channels. This report explained how to put together an implosion-type weapon and provided specifications of various components of the bomb.³⁷ Unsurprisingly, the first Soviet atomic bomb was similar to the tested American version. As the chief designer of the Soviet bomb Iulii Khariton explained: “When we became convinced that we had in our hands fully reliable material, blueprints for the bomb already tested by the Americans, of course in those dramatic times it was more reliable and less risky to use them for our first explosion.”³⁸

Thus by late 1945 the Soviets not only had detailed technical documentation on the U.S. atomic bomb, which Truman so desperately hoped to keep from their hands, but had put them to good use—making their own bomb. The joint declaration was problematic in that it threatened to keep a monopoly on nuclear secrets that were no longer se-

cret from Moscow. Undoubtedly, then, the joint declaration had no genuine practical implications for the Soviet Union. That said, the declaration had political implications because it tested Soviet willingness to embrace greater cooperation with the United States in a sensitive field. In this sense, it may have been a probe of Stalin's commitment to the alliance after the debacle of the London meeting of foreign ministers, which had showed the Soviets in a most uncompromising light.

On November 23, 1945, James Byrnes proposed to Molotov another session of the Council of Foreign Ministers—in Moscow. Byrnes was anxious to overcome the post-London impasse on a range of issues. He also had a new issue at hand—control of atomic energy. Byrnes's request was passed to Stalin, who at the time taking time off at his dacha on the Black Sea. On December 9 Stalin, in a letter to his associates, argued that the “conference of the three ministers in Moscow [meant] retreat by the USA and England from their positions in London.” This had come about only because of Stalin's “policy of adamancy,” which had cut short Molotov's “liberalism” in negotiations with the Allies. In the meantime, elections brought to power pro-Soviet regimes in Bulgaria and Yugoslavia, where, Stalin wrote, the Soviet Union had “won the struggle” with the West. Stalin wanted to continue his “policy of adamancy” at the Moscow conference of foreign ministers.³⁹

When the conference convened in Moscow on December 15, 1945, Molotov again took a hard line on Western proposals regarding peace treaties, pro-Soviet regimes in Bulgaria and Romania, and other issues. As for Byrnes's proposal to create the U.N. Atomic Energy Commission, Molotov consistently pushed this subject to the bottom of the agenda. His first suggestion to this effect was voiced to U.S. Ambassador Averell Harriman on December 7: Molotov wanted atomic energy to be moved from the first item on the conference agenda, where Byrnes had put it, to the last item. When the subject came up in the session on December 16, Molotov again asked to delay discussion, and he did so again four days later. He claimed that the Soviets needed more time because they were “studying the American proposal.”⁴⁰

The Soviet approach is not entirely decipherable. It is possible that the Soviets wanted to emphasize the bomb's insignificance by keeping it at

the bottom of the agenda. But more probably Molotov in fact needed more time to formulate the Soviet position. First, there was the difference of opinion on the subject in the Foreign Ministry. In addition, Stalin's decision on the subject was of crucial importance, but it remains unclear exactly when he offered his insights to the Soviet negotiators. In early December relations between Stalin and Molotov suddenly worsened when the Soviet leader accused his deputy of disloyalty. Under these circumstances, Molotov naturally would have taken a cautious line and procrastinated on discussion of any subject for which Stalin had not yet given coherent instructions.⁴¹

In the meantime, the Moscow conference resulted in a number of breakthroughs. Contrary to his own insistence on complete "adamancy," which Molotov carried out to the letter, Stalin indicated willingness to compromise with the United States. This spirit showed, for example, in his decision to yield to Byrnes on the issue of non-Communist representatives in the Bulgarian and Romanian governments. (Washington withheld recognition from these governments because they were dominated by pro-Soviet parties.) The Soviet "concession" was not very substantial, but it indicated a semblance of flexibility on Stalin's part now that he had stood up to perceived American pressure. This was flexibility of form, rather than of content. It meant that Stalin wanted to maintain cooperation with his wartime allies, but not at the expense of weakening Soviet control of its sphere of influence.

In the same manner, atomic energy offered Stalin a possibility to achieve apparent compromise with the United States without paying anything for it. Stalin was in favor of Litvinov's response to the American proposal. He decided against a propaganda campaign to accuse the United States of efforts to preserve its atomic monopoly. Stalin indeed went further: he agreed to the establishment of the U.N. Atomic Energy Commission, whereas Litvinov counseled him to keep the discussion of atomic issues within the Security Council. Stalin's line, however, was to accept Byrnes's plan, with one important exception: the AEC would have to be subordinated to the Security Council, where the Soviet Union exercised the power of veto. That meant that any decisions by the commission that could potentially prove detrimental to the USSR would have

no chance of implementation. Again, the semblance of cooperation with the United States merely masked Stalin's intransigence: he was not about to allow the Soviet atomic project to come under international control.

Race Against Time

Indeed, in the months after Hiroshima the Soviet atomic project was raised in status. From one of the state's priorities, it became *the* priority. In government documents the atomic project received a simple yet meaningful designation: "Problem Number One."⁴² After August 20, 1945, all nuclear-related pursuits were put under direction of the Special Committee under Beria's leadership. The task of the Special Committee was to coordinate research and development of the A-bomb, prospecting and mining of uranium ores, and creation of the industrial complex to process uranium. To this end, the Special Committee wielded unprecedented administrative powers in the government structure through the First Main Directorate of the Council of Ministers, created specifically to serve the needs of the atomic project. Kurchatov, a member of the Special Committee, put forward his requests, and it was Beria's responsibility to see that those requests were promptly and fully implemented by the government.

Stalin was unconcerned about the costs of this effort. On January 25, 1946, he received Kurchatov for the first time to hear about the needs of the atomic project. Stalin told Kurchatov that "one should not commit to petty tasks, but carry out work broadly, on the Russian scale, and that in this regard the broadest, utmost assistance will be provided." Stalin also warned that "one should not look for cheaper ways" to solve the atomic problem, and he disagreed with Kapitsa's insistence on finding a Russian way to the bomb. In fact, Kapitsa had been fired from the Special Committee on December 21, 1945, and Stalin ominously asked Kurchatov whether Kapitsa's work had been "for the benefit of the Motherland or not." What mattered to Stalin was not to save money but to "carry out the work quickly in the crude basic manner." He told Kurchatov, "All great inventions were initially crude, as it was with the steam locomotive."⁴³

The Soviet atomic project was anything but “crude.” For example, in 1945–46 Kurchatov involved nineteen institutes and design bureaus on his work on the nuclear reactor for plutonium production.⁴⁴ In a kind of aberration from the Soviet economic practice, a special competition was organized in May 1946 among a dozen institutes for invention of the best filters for uranium isotope separation. Recognizing the virtue of material interest, the Special Committee decided to award prizes of hundreds of thousands of rubles for the best filter makers. It did not matter that efforts of several research institutes would thus overlap; the main goal was to have isotope filters of the best quality. In March 1946 prizes and various incentives were also promised to the key scientists of the Soviet atomic project: for example, a million rubles for obtaining uranium-235 or plutonium.⁴⁵

Perhaps no other fact so clearly demonstrates the sheer extent of the atomic project after 1945 as Soviet efforts to mine uranium. Until 1945 no large-scale mining of uranium had been carried out in the USSR, and existing deposits (in Central Asia) had poor uranium concentration. The Special Committee wasted no time in addressing the problem. On August 31, 1945, work completed by the Geological Committee over the previous months was found “unsatisfactory.” Two weeks later Beria, aiming at a breakthrough, assigned responsibilities for uranium prospecting to a dozen organizations that normally would have nothing to do with uranium—for example, the Commissariat for Oil and the Main Directorate of Northern Sea Passage, which took care of Arctic navigation. By mid-1946 320 prospecting parties were in the field, looking for uranium in distant locations from the Caucasus Mountains to the Arctic Circle.⁴⁶

Uranium prospecting was generously rewarded by the Special Committee: prizes amounting to thousands of rubles were approved to this end by Beria in October 1945.⁴⁷ In this matter the Soviet leadership eagerly sacrificed ideological principles for practical results. Such results were soon forthcoming. New uranium deposits were identified in the Baltic area and in northern parts of European Russia. Finding uranium, although challenging, was only the first step. But mining uranium in the harshest conditions, in remote areas, in the absence of transport infrastructure or adequate provision of equipment—only the Soviet adminis-

trative methods could bring this task to fruition. At one stage Soviet geologists relied on donkeys to transport uranium ores in Central Asia. In the mornings donkeys would be herded across impossible passes to mining sites, and in the evenings, the poor animals could be seen stumbling back loaded with uranium.⁴⁸

The Soviet atomic project also relied extensively on the Gulag-supplied labor at mining and construction sites. For example, one thousand Gulag prisoners were assigned to backbreaking labor at uranium mines in the vicinity of Lake Issyk-Kul in Kyrgyzstan in 1947.⁴⁹ Beria was not the first to float the idea of using Gulag workforce to mine uranium. It was in fact the academician Aleksandr Fersman who proposed in November 1940 involving the Gulag in prospecting uranium deposits.⁵⁰ Why not—Stalin’s prisoners did just about everything else, from building factories to digging canals. As one author pointedly observed, slave labor was “a permanent category of Stalin’s thought and a permanent mode of his governance.”⁵¹ Bones of luckless victims of Stalin’s repressions paved the Soviet road to the A-bomb.

The Soviet atomic project had a kind of international aspect as well. A task force was dispatched, for instance, to look for uranium to Germany, where a sizable quantity was found and transported to the USSR. Agreements were signed with Czechoslovakia and Bulgaria to mine uranium ores. Geologists followed Soviet troops to China and North Korea in November and December 1945.⁵² German scientists were drawn into nuclear research, by carrot and stick. Beria identified options for the German scientists in a special instruction on August 16, 1946: “Persons who successfully carry out assigned tasks must be awarded bonuses, and persons who do not work and fake their work *must be removed from institutes and sent to camps.*”⁵³ Even in camps, Germans were assigned to the Soviet atomic project, as evidenced, for example, by the June 1946 decision of the Council of Ministers to make available seven thousand German prisoners of war for construction work related to the atomic project.⁵⁴

In April 1946 Design Bureau 11 was established with an eye to getting down to practical work on constructing an atomic weapon. On June 21, 1946, Stalin approved a working plan for this bureau with specified dates

for the creation of A-bombs: January 1, 1948, for the plutonium bomb and the following July 1 for the enriched uranium bomb. The Soviet leadership expected to have the bomb in a year and a half! In December 1946 Kurchatov launched the first Soviet experimental reactor. In May 1947 the decision was made to build a testing site in Kazakhstan for the first Soviet atomic explosion. By the end of 1947 a prototype of the bomb, without a plutonium core, had been developed and successfully tested. Construction of a large-scale uranium separation plant and an industrial reactor was already under way. While the deadline for the first atomic bomb was missed (and Stalin was apparently very unhappy), the Soviet atomic project advanced far beyond the worst fears of the U.S. intelligence community.⁵⁵

The Soviet push for the bomb was remarkable. It required unprecedented commitment of resources and exceptional coordination. All scientific institutes that could contribute anything to the atomic project were utilized by the Special Committee. Relevant commissariats were ordered to produce whatever Kurchatov and his team desired, or else risk Beria's rage. Tens of thousands of people were involved in this Herculean effort, and millions upon millions of rubles were spent without a second thought at a time when the Soviet economy was struggling to recover from wartime destruction and peasants in rural Russia were suffering the effects of widespread starvation. This commitment of human resources and funds could be realized only in a Stalinist state with its potential for mobilization.

Three points come to mind with regard to Stalin's early postwar policy toward the atomic bomb. First, he consistently downplayed the bomb's short-term significance. One reason for this was that Soviet strategists realized that the United States had used up its stock of bombs in Hiroshima and Nagasaki and would need time before it could assemble new weapons. Also, Stalin did not expect a military confrontation with the United States in the short run; he felt that America was not prepared and not willing to fight another war. Finally, Stalin apparently concluded that the atomic destruction of Japan, though impressive, was survivable—the damage inflicted was comparable to the utter destruc-

tion suffered by a dozen of Soviet cities during the war. But Stalin realized the bomb's long-term significance: in a few years, the United States would have more—and more powerful—bombs, and it would be more willing to go to war and use them against the USSR. In the long term, the bomb was an absolute necessity for the survival of the Soviet Union, which is why the government devoted colossal resources to the Soviet atomic project.

Second, before and after Hiroshima, Stalin understood that the United States would use its atomic monopoly to exact concessions from the Soviet Union. His strategy to counter U.S. atomic diplomacy consisted of two parts. One was to minimize the bomb's importance in open propaganda. Soviet press coverage of the atomic issues after Hiroshima was decidedly low-key and reserved. The second part was to take a tougher negotiating position lest the Americans think that Soviet concessions were a result of successful atomic blackmail. Soviet intransigence brought the London conference of foreign ministers to a deadlock, but the reason for this intransigence was not that Stalin wanted or expected to have 100 percent of his demands met by the Allies. The reason was rather to make a point for the point's sake: that the Soviet Union would not give in to pressure, tacitly represented by the atomic bomb.

Third, Stalin's policy with regard to the West before and after Hiroshima remained essentially the same. We have in this chapter demonstrated that even before Hiroshima, Stalin was concerned about apparent U.S. efforts to put the Soviet Union under pressure, as in the case of the disruption of Lend-Lease. Before and after Hiroshima, Stalin tried to cooperate with the Allies for as long as his interests were recognized but confronted them when these interests were put in jeopardy. Hiroshima did not begin Stalin's Cold War; it was no fork in the road for Soviet foreign policy. The wartime alliance with the West never meant more to Stalin than a temporary expedient; he believed in the inevitability of conflict with the capitalist world. Hiroshima became one of a number of important milestones, indicating to Stalin that this conflict would come sooner rather than later.

5

THE BARUCH PLAN AND THE ONSET OF AMERICAN COLD WAR

Now that the war had ended, would the Soviet Union reverse its uncooperative stance and accept a new and liberal world order? Would it accept the liberalization of the world economy, the abolition of power politics, and the creation of a serious regime of collective security? This had been the ultimate goal of Roosevelt, and on this question the future of postwar international politics hinged.

Roosevelt had tried to use the prospect of the atomic bomb to impel the USSR in this direction, but as we have seen, his policies had been unsuccessful so far—Stalin’s actions in Eastern Europe and insistence upon the Security Council veto suggested a USSR unwilling to accede to American preeminence. For the most part, Truman had neglected the larger issue of postwar order during the first months of his presidency, focusing more immediately upon the resolution of the war and in particular the surrender of Japan. His decision to allow a quick second bombing of Nagasaki may well have been an attempt to use the actuality of the atomic bomb to pressure Stalin into accepting American terms for the postwar world, or at least to forestall a Russian role in the defeat of Japan. But by the end of the war his administration had developed no kind of grand strategy to achieve its new liberal order: there was no plan to use the bomb systematically to coerce the Russians, no plan for a grand, world-carving postwar summit conference, no blueprint for American postwar action comparable to that put forward in the famous National Security Council document 68 that sought to shape the Cold War in the 1950s.

Central to the U.S. position was the question of the atomic bomb. American pressure upon Russia depended, to an important extent, upon the United States having the bomb and the Soviets not. The American offer of liberal international order was on the table, and the nuclear monopoly allowed Truman to hold his position and wait for Stalin to relent. This may have been what Truman meant when he told Averell Harriman in April that the United States might not get 100 percent of what it wanted, but it should get 85 percent.¹ In a deeper and more complicated sense, however, the atomic bomb was also at the heart of genuine U.S.-Soviet collaboration. Even if the Soviet Union agreed in principle to an American-led order, the two new superpowers, together with Great Britain, would have to cooperate to establish some kind of international control over the new weapon. Without such control, the United States, along with any other nation that obtained the bomb, would be able to defy the new order and practice power politics without anyone being able to stop them. If there was any lesson to take from the 1930s, it was this one. To achieve international order, the United States wanted the Soviet Union to accept a global system characterized by American political and economic institutions, and it tacitly used its atomic monopoly as a means of persuading Stalin to give in. Yet to achieve international atomic control, an indispensable element of a workable international order, the United States, as the only nation possessing atomic weaponry, would have to agree to transfer its arsenal to the United Nations. Otherwise, the Soviet Union, and perhaps other nations as well, would refuse to submit themselves to the authority of international government.

To achieve the twin goals of international atomic control and international order, Truman needed clear evidence that the Soviet Union was amenable and that international control was possible. Unable to read Stalin's mind, or participate in Kremlin discussions, Truman had to have evidence, now, that the Soviet Union was likely to become more cooperative, that it would not resort later to power politics, and that therefore a step as grave as transferring America's atomic arsenal to an international body could be justified. It was a formidable problem, but Truman was formally committed to resolving it: in October 1945 he declared, as

Roosevelt had many times before, that “the world cannot afford any let-down in the united determination of the allies in this war to accomplish a lasting peace.”²

In this chapter we show how the dilemmas raised by the atomic bomb led the United States to abandon this goal in the latter part of 1945 and early 1946. We argue, by examining closely the logic of administration actions during this period rather than just its official policies, that the revelations of atomic espionage in September 1945, and then again in February 1946, proved decisive in convincing Truman both that the Soviet Union was never going to accept American preeminence and that international atomic control would be politically impossible. By the spring of 1946 the issue of serious international atomic control was, as far as the Truman administration was concerned, dead. The ensuing Baruch Plan, ostensibly to establish international control, was not that at all but rather one of America’s first acts of Cold War.

Early Postwar Diplomacy and the Canadian Spy Scandal

As we have seen, President Truman himself had given little attention to the question of international control, fixated as he was on wartime diplomacy, the end of the war with Japan, and—in the immediate wake of the war—the peacetime conversion of the American economy.³ Henry Stimson, however, had begun to consider the question seriously, determining after Hiroshima to make it his final cause before retirement. On September 12, 1945, he delivered a lengthy memorandum to the president in favor of international control. The secretary of war spelled out the situation as clearly as possible. The American monopoly, wielded in apparent collusion with Great Britain, signified to Stalin that “we are going to maintain the Anglo-Saxon bloc over against the Soviet in the possession of this weapon. Such a condition will almost certainly stimulate feverish activity on the part of the Soviet toward the development of this bomb in what will in effect be a secret armament race of a rather desperate character.” Were this to occur, the establishment of international control, an objective that “civilization demands,” would be lost. The United States faced a choice between international

control over the bomb and conflict and an arms race with Russia. "To put the matter concisely," Stimson argued, "I consider the problem of our satisfactory relations with Russia as not merely connected but as virtually dominated by the problem of the atomic bomb." He implored the president to make a "direct and forthright approach" to the USSR "as part of a general international scheme," adding (crucially, as we shall see), "just as soon as our immediate political considerations make it appropriate."⁴ In a White House cabinet meeting nine days later, Stimson presented his argument to Truman's foreign policy team, imploring them to support his plan to approach the Soviet Union immediately with a proposal to establish international atomic control.⁵

Stimson's unambiguous words suggest that the deep connection between atomic control and relations with the USSR was not an abstraction, not something discernible only to future historians, but rather the obvious issue with respect to the atomic bomb. In a memorandum and then a farewell meeting the secretary of war, not some anguished scientist, spelled out a straightforward argument to Truman himself and to his top foreign policy advisers. In September 1945 conflict with the Soviet Union was not yet proclaimed as an inevitability in Washington, and Stimson was telling the president that if he wanted to avoid such conflict, international atomic control was a core necessity. No one was offering any other solutions, and indeed, Truman himself had already publicly endorsed the idea of international control, and the larger ideal of post-war cooperation with the USSR. Even as Stimson spoke at the White House, American delegates were conferring with their Soviet and British counterparts at a conference in London. Here was an opportunity to act on Stimson's demands, if Truman had reason to accept them.

Yet Truman demurred, telling his advisers after Stimson's presentation only to come up with their own ideas on the matter. He declined to communicate Stimson's argument to his delegates in London, and did not refer to Stimson's logic in further meetings about relations with the USSR.⁶ What held the president back? What, in the fall of 1945, well before the overt deterioration of U.S.-Soviet relations, dissuaded Truman from putting international atomic control at the center of his foreign policy?

In his memorandum, Stimson alluded to “immediate political considerations” that might delay negotiations with the Russians, without specifying what these considerations were. Almost certainly, however, he was referring to a problem that would turn out to be central to the American abandonment of international control: atomic espionage. In 1942 Washington had become aware that there was some level of Soviet spying on the Manhattan Project, and by 1945 it was a matter of fact. This was why Stimson cited in his memo “evidence to indicate” that the Soviet Union had already begun to develop its own bomb. Indeed there was: in an August 8 interview with the American ambassador to the Soviet Union, Averell Harriman, Stalin as much as admitted that his country had already begun an atomic project, lamenting, two days after Hiroshima, that “Soviet scientists said that [atomic energy] was a very difficult problem to work out.” Harriman replied that an plan by the Allies to keep atomic energy to themselves “would be a great thing.” Stalin ostensibly agreed, saying, “That would mean the end of war and aggressors. But the secret would have to be well kept.”⁷ As it had not been from him, Stalin might have added.

Just as Stimson was composing his memorandum a month later, however, Washington was obtaining new and sensational information that the secret had not been kept well at all. During the first week of September, Igor Gouzenko, a clerk in the Soviet embassy in Ottawa, informed the Canadian government of an extensive spy network operating there that had penetrated deeply into the Manhattan Project during the war. Following a lengthy and strange process, the Canadian government finally took Gouzenko into custody; on September 29 Prime Minister MacKenzie King flew to Washington to break the bad news to Truman.⁸

The president, however, had already received initial reports of the discovery from J. Edgar Hoover, director of the Federal Bureau of Investigation. On September 12 Hoover informed Matthew Connelly, the president’s secretary, that a scandal was brewing in Ottawa over the espionage, that it seemed to have involved high officials of the Canadian government, and that certain members of the State Department were suspected to have links with these Canadian officials. In three further letters in September, Hoover reported on more possible links between the

Canadian operation and American officials, and on the “number one project” of the Soviet Union to “obtain construction plans of the atomic bomb itself by the end of this year.”⁹

What were the “political considerations” Stimson had referred to? Hoover, by repeatedly informing the White House that a serious political scandal was brewing, one that could implicate senior Democratic Party policy makers, was placing some dire ones before Truman. International control was never going to be politically easy. Pursuing a plan to cooperate with the Soviet Union on the revolutionary matter of international control over a class of weaponry would require a sustained political campaign to convince the American public—and in particular a growing movement of anti-Soviet Republicans in Congress—that the United States could trust the Soviet Union enough to give up its atomic monopoly to an international body and to collaborate with the Russians in running the world.¹⁰ This was always going to be difficult to achieve. As Hoover, along with other officials who may have sought to undermine international control, could see, it would be impossible to achieve if the American public were to find out, while its government was calling for unprecedented cooperation with the Russians, that its wartime ally had undertaken a sustained spying operation on its atomic project, that this operation might be connected to leading figures in the Democratic Party, and that the Russians were already working full-time on their own bomb. Not only would this destroy the trust between the two nations that a world government would require, it would also, and much more ominously, raise the possibility that the Soviet Union could secretly continue to work on its own bomb while the United States handed its own over to an international agency. Exposure of the spy ring while Truman was advocating atomic cooperation with the Soviet Union would make the president a laughingstock and destroy the idea of international control—not to mention the president’s political future—for good. There can be little doubt that this was Hoover’s intended implication.¹¹

The message coming from Hoover created a political dilemma for Truman. Whether he genuinely cared about international control and world order or not, espionage was going to make it a political problem. If Truman openly committed himself and his government to international con-

trol, the revelations of the spy scandal would have disastrous political consequences. The Cold War had yet to take its ultimate form, but any American president would have found it politically impossible to advocate atomic sharing with the Soviet Union while headlines trumpeted its atomic spying. Alternatively, if Truman openly abandoned the idea of international control, he risked alienating a large segment of the American population, particularly Democratic Party liberals, who strongly supported negotiations with the USSR and the dream of collective security that Roosevelt had promised, and who were not yet aware of the espionage scandal. Worse still, a unilateral decision by the United States to abandon atomic control would open the government to accusations that it was destroying the promise of collective security in order to retain its atomic monopoly. The United States would be to blame for the deterioration of postwar international politics.¹²

How Truman actually reacted to this dilemma is unrecorded. His memoirs and the documentary record are almost devoid of discussions of this problem. As with Roosevelt's atomic diplomacy during the latter years of the war—and indeed as with other events in nuclear history—the combination of military secrecy and the basic national stakes associated with the atomic bomb often caused leaders to make their policies outside of straightforward cabinet decision making, leaving us with a bare documentary record and official explanations of actions that often make little sense.¹³ When the explosive domestic political consequences of atomic espionage were added to this combination, the gap between official policies and actual objectives became even greater. In accounting for Truman's response to the dilemma Hoover put before him, it therefore becomes necessary to deduce the president's policy from his deeds rather than from his words. In late 1945 and early 1946 Truman began to respond to this dilemma by developing a political strategy that allowed him nicely to finesse the problem.

In early October, after receiving the last of Hoover's early reports and meeting with King in Washington, Truman delivered a message to Congress that formally endorsed the objective of international atomic control and in particular Stimson's idea of concentrating on bilateral negotiations with the Russians.¹⁴ But a few days later, the president convened a

press conference in rural Tennessee, where he made a point of telling the reporters there that his comments were “on the record.” This instruction, uncharacteristic of Truman, reveals that he intended to make a public statement of policy away from Washington officialdom. Truman told the reporters that there were three kinds of atomic “secrets.” The basic science was now known around the world. The “know-how,” the application of the science to atomic technology, was possessed by the United States and Great Britain. Finally, there were the physical industrial and resource capabilities without which the science and technology would be useless.

The United States, he said, would not simply give away the industrial and material assets on which it had spent so much time and money during the war. And since it would be impossible to develop atomic energy without these material capabilities, Truman reasoned, why should the United States give away the other information? Let aspiring nations acquire atomic energy “on their own hook,” he said.¹⁵

Truman’s comments clearly appeared to rule out an active American effort to establish the kind of international control Stimson sought. How could the United Nations acquire control over the atomic bomb when Truman was declaring that the United States would not relinquish its own technology, and when he was almost daring other nations to build a bomb themselves? Truman surely meant it when he said that the United States should not give away the facilities and know-how it had spent so much money on. But why would he make a point of announcing this publicly, especially when his statements would obviously be interpreted as a sign that his administration would not pursue atomic control seriously?

Yet the United States continued officially to promote international atomic control in late 1945 and early 1946. In November 1945 Truman met with British Prime Minister Clement Attlee and Canadian Prime Minister King in Washington to discuss a three-power “trusteeship” over the bomb, whereby the three English-speaking nations pledged to refrain from using the bomb and to coordinate the careful dissemination of technology for the peaceful use of atomic energy until, as Truman put it, “international control can be achieved.”¹⁶ At the conference Truman

promised Attlee that the United States would adhere to its promise, made by Roosevelt in 1944, to regard its monopoly over the bomb as a partnership with the United Kingdom, while publicly the three leaders announced that the ultimate purpose of their meeting was not to cement such a monopoly but to prepare the way carefully for authentic international control. Nevertheless, Secretary Byrnes, if not Truman himself, understood that the Soviet Union would perceive its exclusion from the Washington conference as a sign that the English-speaking nations were simply aiming to perpetuate their exclusive domain over the bomb, just as Stimson had warned. In a tense meeting with Lord Halifax, the British ambassador, Byrnes insisted on discussing the "atomic energy matter" with Stalin before the meeting of the U.N. General Assembly in January, a move that apparently reneged on an agreement made between the United States and Great Britain in November. Byrnes proposed to the Soviets a Moscow meeting at the end of the year, which could provide an "opportunity for the British and American Governments to exchange views with the Soviet Government on the subject of the control of atomic energy." Byrnes had urged, before the end of the war, that the United States play its atomic card ruthlessly, but then negotiate seriously with the Russians from a position of strength. This appears to have been his genuine goal at the Moscow conference.¹⁷

If the United States was keenly interested in achieving international control, the Moscow conference was the place to do it. After some negotiations the three nations agreed to put the atomic question last on the agenda, following other issues related mainly to Eastern Europe. This suggested that the Soviet Union, whose foreign minister, Vyacheslav Molotov, proposed this change, was genuinely eager to negotiate on the question after the other matters had been cleared away. Yet at Moscow the three powers never reached even an oral agreement on international control. The reason for this is clear: on December 15, the day before the conference was scheduled to begin, Truman wrote Byrnes, via the undersecretary of state, Dean Acheson, that in the president's meeting with the Senate Atomic Energy Committee it had been assumed that "you had no intention whatever of disclosing any scientific information in the course of your present mission." The president,

Acheson reported, “made it clear that any proposals advanced would be referred [to Truman] before agreement was reached and that he had no intention of agreeing to disclose any information regarding the bomb at this time or unless and until arrangements for inspections and safeguards could be worked out.”¹⁸ On December 24 Byrnes reported back that Molotov had rejected any plan for atomic control developed with stages of inspections and safeguards, favoring instead more direct action following a “complete subordination” of the Atomic Energy Commission to the Security Council.¹⁹ The conferees could only announce, as they broke up at the end of the year, that the three nations recommended the establishment of a United Nations commission to deal with atomic energy matters. The direct diplomacy between the United States and the USSR that Stimson had urged in September, and that Byrnes had sought to pursue in December, to achieve real international control had failed.²⁰

Upon his return to Washington, Byrnes authorized the State Department to set up a committee that could develop a formal plan for transferring the American bomb to this new U.N. agency. This committee, headed by Acheson and David Lilienthal, the former director of the Tennessee Valley Authority, worked throughout the winter of 1946 and submitted a lengthy report, later called the Acheson-Lilienthal Plan, to Byrnes on March 16.²¹

The report’s main objective was to show how the United States could gradually transfer its scientific knowledge, nuclear material, and finally whatever actual bombs it possessed to the U.N. Atomic Energy Commission (UNAEC), while at the same time establishing inspection and verification regimes to prevent other nations, most notably the Soviet Union, from building a bomb secretly. Though Truman later praised the report as a “great state paper,” the fact remained that it failed to address the issues that the president had raised in his Tennessee speech in October and in his letter to Byrnes before the Moscow conference.²² Could international control be achieved if the United States refused to turn over its scientific know-how and facilities to an international organization until all other nations, and most obviously the Soviet Union, opened themselves up to full inspection? Truman had already alluded to this problem;

a study by the Joint Strategic Survey Committee prepared for the Joint Chiefs of Staff in January highlighted it:

Effective international control to guarantee that atomic weapons could not be used by an aggressor nation [the study's authors argued] is virtually impossible under the present concept of a world divided into nations maintaining their full sovereignty. No system of inspection can be expected to be one hundred percent effective in such a world, and ninety-nine percent effectiveness is no guarantee. The best possible system of inspections is a necessary adjunct to any effort at control but effective sanctions, should inspection uncover violations, are equally vital. Since such sanctions probably cannot be applied by the United Nations, at present, because of the veto provision, immediate consultation and agreement of nations other than the offending state will be necessary. Obviously, the United Nations system will then have broken down as such.²³

The Acheson-Lilienthal report avoided these problems. It offered instead a detailed technical process of technology and material transfer to be initiated whenever international conditions made such actions "fruitful." Because of this rift, and also perhaps because the substance of the report was leaked to the press before official publication, Byrnes made a point of writing, in a foreword to the report, that the "document is being made public not as a statement of policy but solely as a basis for such discussion."²⁴

The Pearson Revelations and the Onset of the Baruch Plan

In early February, while the Acheson-Lilienthal report was being prepared, the syndicated columnist Drew Pearson revealed, in a radio address, both the existence of the Canadian spy scandal and the possibility of atomic espionage within American borders. Almost certainly Pearson had received his information from a government official opposed to international control, in the belief that these revelations would turn much of the American public and especially members of Congress against

any plan that required the United States to trust the Soviet Union on matters of atomic technology. Amy Knight argues that the source was Hoover, a claim that makes perfect sense.²⁵ The scandal, which Pearson elaborated upon in further radio reports, and which was intensified by further reporting by the journalist Frank McNaughton and the announcement by Canada that it had arrested twenty-two espionage suspects, occupied the attention of Washington throughout the turbulent month of February 1946. An immediate effect was Truman's decision to cancel the deal on atomic cooperation, signed back in November, with Canada and Great Britain, leaving both nations—though effectively Britain—officially on their own to develop atomic weaponry.²⁶ As the British pointed out, by canceling this deal Truman was renegeing on the agreement Churchill and Roosevelt had made in 1944.

When the Acheson-Lilienthal report, which suggested that the administration was still seriously interested in international control, was leaked in March, Truman responded again by moving to obstruct the achievement of international atomic control. His reaction this time was to appoint Bernard Baruch, a Wall Street speculator and Democratic Party financier well known for his service on the War Industries Board in World War I, as the American head of the delegation to the UNAEC, scheduled to meet later in 1946 for the purposes of establishing international control. His appointment was regarded by American advocates of international control as little short of a disaster; he had no knowledge of atomic energy, had played no previous role in the formation of postwar foreign policy, brought with him to his new job a team of conservative industrialists, none of whom had expressed any previous interest in international control, and was widely regarded as an egomaniac.²⁷

Baruch informed the White House upon his appointment that he wished to modify the Acheson-Lilienthal Plan. In a reply to a letter from the Republican Senator Arthur Vandenberg, who had expressed concerns about the plan in light of the atomic espionage, Baruch agreed on March 21 that “there shall be no agreement for any atomic disclosures without prior adequate and dependable safeguards and protections for our own security at every stage.” On April 19 Byrnes gave Baruch a green light for

instilling such safeguards, informing Baruch that the existing plan was “not the last word on the subject, and, on the contrary, that I shall give careful consideration to any views that may be presented by you after you consider the problem.”²⁸

In the middle of May, Baruch presented these new views at a meeting at Blair-Lee house in Washington. American policy would now add two key stipulations to the Acheson-Lilienthal Plan. First, all nations must subject themselves to full territorial inspection before the United States would turn over any sensitive atomic technology to the UNAEC. Countries found in surreptitious possession of atomic bomb production facilities, which would have been the case with the Soviet Union, would face “immediate and certain” penalties delivered by the Security Council, the U.N. organization commissioned to coordinate military action against nations posing a threat to international security. Second, on this matter only, there was to be no veto power for any Security Council nation. No permanent member of the Security Council, in other words, would be able to veto a Security Council decision to attack a nation found attempting to build atomic bombs.²⁹

An intense debate ensued in late May and early June among the new Baruch Plan advocates and the remaining supporters of the Acheson-Lilienthal Plan. In the middle of the struggle, Hoover sent a letter to George Allen, director of the Reconstruction Finance Corporation and a Truman confidant, suggesting that “there is an enormous Soviet espionage ring in Washington operating with the view of obtaining all information possible with reference to atomic energy,” and that many top U.S. officials—including, Hoover wrote, Undersecretary of State Dean Acheson—were implicated in this project.³⁰ Hoover’s wild charges reminded Truman yet again of the political stakes he faced should the advocates of the more generous plan prevail. But the outcome of this debate, even leaving aside Hoover’s insinuations, was never in question. Byrnes met with Baruch on June 1 and confirmed his support of the stipulations for immediate punishment and veto suspension. Baruch aide John Hancock composed in early June a new statement of policy, which President Truman approved formally on June 7.³¹ On June 14 Baruch spoke at the inaugural session of the UNAEC at Hunter College in New

York to announce the new American plan. The commissioners were there, Baruch announced, “to make a choice between the quick and the dead. That is our business.” The world’s very survival depended upon their success, Baruch gravely warned: but no plan could succeed without safeguards and penalties.

Despite Baruch’s portentous words, the public announcement of the new American stipulations, delivered without any advance negotiation with, or even warning to, the Soviet Union, spelled not the beginning but rather the end of any hopes for international atomic control. By threatening any violator with immediate military attack, the United States (for it would be the United States that controlled any Security Council operation) was presenting Russia with an invitation to invasion were it to accept the plan. The Soviet response was total and unwavering rejection, backed up by an alternative, the so-called Gromyko Plan, which called for the immediate abolition of all atomic weapons, a proposal that neither the United States nor the Soviet Union took seriously.³²

The United States was determined to maintain its new safeguards, and the Soviet Union equally so to reject them. The distance between these two nations—the only two that mattered in 1946, when it came to the prospects of actually achieving international control—was so vast as to make the ensuing UNAEC negotiations purposeless. By August, Baruch had already begun to suggest that the goal of the United States should now be to see to it that the Soviet Union take the blame for the failure of international control.³³ On September 14 aide Franklin Lindsay told Baruch that there was a “fairly widespread feeling that agreement would prove to be impossible,” and on September 17 Baruch reported to Truman that “we see no possibility of reconciling” the U.S. and Soviet positions.³⁴ During the fall Baruch began to insist that the UNAEC decide immediately whether it would accept the American proposal or reject it. On the last day of 1946 the UNAEC rejected it—the Soviet Union and Poland abstained, thus depriving the plan of sufficient yes votes—putting an end to the Baruch Plan, to the possibility of international control, and therefore to the last chance of avoiding a postwar order characterized by confrontation between the United States and the Soviet Union.

Why did the Baruch Plan fail? As we have already suggested, the fail-

ure of international atomic control cannot be divorced from the failure of Roosevelt's new order. A new world order required international control, and international control required a new world order. Avoidance of an arms race and the establishment of a serious international agency in control of all atomic weaponry was not something that could have been achieved if only diplomats on both sides had been willing to compromise a bit more, or if the two contending sides had taken more time, or if idealists had been given a greater voice. For international control to work, both the United States and the Soviet Union would have had to accept great risks, which, had they backfired, might bring national humiliation. Espionage did not cause this problem: it only eliminated any chance of its solution.

This conclusion raises another question: why did the United States bother to propose international control in the first place? And once it decided to do so, why did it put forward a plan that the Soviet Union was unlikely even to consider, and certain not to accept? The only explanation that can account for this is that Truman and his administration deliberately sought to offer a plan that they knew would be rejected, thereby evading the dilemma that Hoover had presented in the fall of 1945. Unsurprisingly, no documents exist that definitely reveal that this was Truman's intention. To substantiate this claim, therefore, it is necessary to show that this scenario explains administration actions in a way that other historical explanations cannot.

A conventional historical interpretation takes the American position at face value: the Truman administration genuinely sought international atomic control but wanted at the same time to make absolutely sure that the Soviet Union could not abrogate the treaty and steal the atomic monopoly from under the Americans' noses. According to this view, the Soviet Union was to blame for the failure of the Baruch Plan. The United States had offered to abandon its atomic monopoly for the cause of world peace, asking only for reasonable assurance that its generosity would not be exploited; the Soviet Union responded with intransigence, cynicism, and a ridiculous plan for immediate atomic disarmament.³⁵

A more critical view suggests that the Baruch Plan was much as the Soviet Union suspected: an act of *Machtpolitik* that, as Gregg Herken ar-

gues, “guaranteed success on American terms either if the Russians finally accepted the plan, or, if diplomacy failed, in the perhaps unavoidable war that followed.”³⁶ This argument posits that the Baruch Plan fit within the larger American strategy of using its atomic monopoly to extract concessions from the Soviet Union in all manner of Cold War confrontations, from the use of the atomic bombs over Japan to frustrate Russian plans in Asia, to the deployment of B-29 bombers to England during the Berlin blockade crisis in 1948. By placing before the Soviet Union the choice of acquiescence to an American-dictated regime of atomic control or the possibility of imminent invasion, the Baruch Plan represented a kind of pinnacle of atomic diplomacy.³⁷

Both of these arguments, however, fail to explain key aspects of Truman administration behavior during 1945 and 1946. On one hand, the conventional interpretation cannot account for the desire of Baruch and his advisers to demand a quick “up or down” vote on the American proposal when they knew, and were acknowledging to themselves, that the Soviet Union would never agree to it. If the stakes were as grave as Baruch described them in his June 14 speech, why didn’t the United States extend the negotiations? Why did American leaders refuse to modify, even cosmetically, the stipulations that the Soviet Union had stated were unacceptable? What was to be gained by being rigid?

A possible answer to this question was that Truman and Baruch believed that the American position was so strong that the Soviet Union ought to have accepted any offer put forward by the United States, recognizing that even a U.N. regime heavily tilted toward the United States was better than an anarchical world in which the United States had atomic weapons and the Soviet Union did not. The problem with this answer, however, is that while this was a plausible public position for the two men to adopt in 1946, it ignores the evidence that we now have that Washington was fully aware of the ongoing Soviet atomic project, was worried that it extended deeply into the American atomic establishment, and therefore had reason to fear that the Soviet Union could build an atomic bomb soon. Truman’s awareness of the Soviet project also suggests that he and his aides must have understood that the key provision of the Baruch Plan, the threat of war against any nation caught with

atomic facilities, was going to be perceived by the Russians as an act of obvious American aggression, since the Russians knew that the Americans knew of their ongoing atomic project. The conventional explanation of the American position makes more sense if the United States had atomic weapons and had no reason to believe that the Soviet Union had already embarked upon its own project—if atomic espionage is excluded from the story. A Truman administration keenly aware of the espionage, as we now know it was, knew well that the Baruch Plan was not the act of generosity it later portrayed the plan to be.³⁸

On the other hand, Herken's *Machtpolitik* thesis, while plausibly accounting for other Truman administration actions, makes little sense when applied to the Baruch Plan. To reiterate, Herken contends that it was a staple of early U.S. Cold War policy to use the tacit threat of unilateral atomic attack in order to persuade the Soviet Union to accede to American wishes.³⁹ A good example remains Truman's decision in 1948, following Stalin's establishment of the Berlin blockade, to deploy B-29 bombers to Great Britain. No threat was made (and indeed Stalin knew that there were no bombs aboard the B-29s), but Truman had reason to believe that it was a strong enough sign to dissuade Moscow from responding militarily to the Berlin airlift.⁴⁰ The politics of the Baruch Plan do not resemble this kind of persuasion at all. If Truman meant to use the threat of atomic war to compel the USSR to accept the Baruch Plan, then it was the starkest example of atomic diplomacy in Cold War history, since he and his advisers had every reason to believe that the Soviet Union was certain to reject it. Had they any doubts about this, the repeated Soviet dismissals of the Baruch Plan as beneath consideration during the second half of 1946 would have erased them. If the logic of atomic *Machtpolitik* was at play here, then the Truman administration should have issued serious threats and perhaps even declared war on the USSR, since the Russians totally rejected the American proposal, resisting all American demands.

Nothing like this occurred. The United States did not, during the second half of 1946, threaten the Soviet Union with attack, issue any kind of ultimatum, or try to combine carrot and stick by raising the possibility of war while at the same time softening Baruch's provisions.⁴¹ Nor did it attempt to capitalize politically on the Soviet rejection of the Baruch Plan

in 1947, preferring instead to let the issue die out. The unacceptable plan simply remained on the table, with the United States issuing neither threats nor inducements to persuade the Soviet Union to agree to it. It was as if the United States did not want the Russians to accept the offer.⁴²

As with the conventional interpretation, the *Machtpolitik* thesis fails to take into sufficient consideration the effect of espionage on Truman's decision making.⁴³ It makes sense to suggest that the Truman administration believed that it could intimidate the Soviet Union into accepting a plan that amounted to American domination only if it also assumed that the USSR regarded their long-term options as only those of an American-dominated United Nations or eventual American conquest. Yet Truman and his advisers knew that the Soviet Union had a third option, which was simply to reject the American plan and redouble its efforts to build its own bomb. A United States operating according to the grim strategy Herken describes would not have allowed Russia to pursue that option.

If the Baruch Plan was never meant to be a serious proposal that the Soviet Union would possibly accept, why then did the United States persist with it? Domestic political factors—Truman's continuing desire to appeal to the American left, or perhaps, even more simply, his interest in appearing as a peace seeker to posterity—provide plausible answers. There is a deeper explanation, however, and one that falls squarely within the traditions of American diplomacy.

In 1947 the United States proposed to Europe an economic restructuring plan that changed the face of the Cold War: the Marshall Plan. Perhaps the most successful single foreign policy initiative undertaken by the United States, the Marshall Plan delivered fatal blows to the Soviet Union's aim to project its power further into Europe. It rejuvenated the economies of the war-ravaged nations of Western Europe, giving their governments and populations confidence in their economic future and a reason to reject radical politics. It tied the economic fates of these nations to that of the United States, integrating them into the American-led capitalist world system by means of political and economic suasion rather than military coercion. It provided ready markets in Western Europe for American industries struggling to convert to peacetime production. And it won for America the gratitude of millions of ordinary Europeans,

which was not an insignificant factor in the struggle with the Soviet Union over the fate of Europe.

But another admirable feature of the Marshall Plan was the ingenious strategy of its presentation to the nations of Europe. The United States offered immense grants of cash and material aid to all of the European nations, not just those in the West, on the sole condition that the recipient nations agree upon a common economic plan to use these resources. Of course, this economic plan had to be based upon market capitalism, a stipulation not mentioned formally in the proposal but obvious nevertheless. Eastern European nations that accepted the American offer, as many were initially keen to do, would therefore have become incorporated into the American economic system, gravitating naturally into the U.S. orbit as their material fate became dependent upon American, not Russian, alliance.

This brilliant maneuver placed the USSR in a no-win situation. If it allowed its client states in Eastern Europe to accept the grants, these nations would drift away from Soviet control. By forcing them to reject the offer, as actually happened, the Soviet Union would both have to admit its coercive domination of these nations and take responsibility for depriving their populations of badly needed economic aid. In a telling parallel to events a year earlier, the Soviet Union belatedly responded to the American gambit with a transparent version of its own, the so-called Molotov Plan, which was seen by Eastern Europe for what it was.⁴⁴

This American stratagem, which also was kept out of official documents for later historians to see, resembles closely the politics of the Baruch Plan.⁴⁵ The revelations of espionage led Truman and his advisers to abandon the idea of international control, but they also informed him that the Soviet Union had embarked on its own atomic project. He knew, therefore, that an American proposal that emphasized full inspection and that promised military action in the event of discovery of atomic facilities would be unacceptable to the Soviet Union on obvious grounds, forcing it to reject in the public forum of the United Nations a grand initiative to save the world from an atomic arms race. Like the Marshall Plan to come, the Baruch Plan would put the Soviet Union into a no-win position, forcing it to choose between a likely invasion by an American-led U.N. force with the mission of destroying its atomic program, or to

take responsibility for the collapse of international control and, in an important sense, for the Cold War itself. Of course, the only choice for the USSR was the latter one.

The decision in the spring of 1946 to add the harsh provisions so conspicuously now becomes central to the story. Had the American proposal remained as it was in early 1946, neither the Soviet Union nor, in the end, the United States would have been likely to pursue it seriously, but the reasonableness of the U.S. plan might well have caused negotiations to play out for many months, perhaps years. This would have raised expectations around the world (and among the American left) that the plan might eventually succeed, and it would have run the risk of making the United States the nation to blame when it failed. American officials would have been unpleasantly aware that while the Soviet Union happily joined in the worldwide condemnations of U.S. militarism, it was secretly building a bomb itself. To an American administration that had already given up on the formidable goal of serious international control, this was an unappealing prospect. By emphasizing a series of new provisions that it knew the Soviet Union could never accept, by refusing to negotiate on these provisions, and by insisting on an up-or-down vote in the UNAEC as soon as possible, Truman and Baruch guaranteed a timely Soviet rejection. As was to be the case with the Marshall Plan, the key was to make it impossible for the Soviet leaders to accept the American offer, in this case putting them in a position where only they would be responsible for the failure of international control. After the failed vote on December 31, David Lilienthal ridiculed Baruch (in his diary) for regarding the 10–0 vote (with two abstentions) as a ringing endorsement of his plan. But perhaps Baruch had more reason to be satisfied with his work than Lilienthal suspected.

The Failure of International Atomic Control: Espionage and the Art of Historical Deduction

The Truman administration failed seriously to pursue the goal of atomic control during the first sixteen months of the postwar era, and the final UNAEC vote on the last day of 1946 to reject the Baruch Plan

made the issue a dead letter. As we have shown, the administration clearly reached the conclusion in February 1946, if not considerably earlier, that it did not really want to achieve international control in any meaningful sense, and that it wanted to use the Baruch Plan as a clever means to force the Soviet Union to take the blame for its failure.

From the perspective of policy makers in Washington, the odds were always heavily stacked against international control. With the exception of Stimson, who disappeared from the scene in the fall of 1945, and perhaps Byrnes, until early 1946, Truman and his senior foreign policy advisers had, like Roosevelt before them, neglected to deliberate on the momentous changes in American foreign policy that would be required were the United States to decide to collaborate with the world's other great powers, most notably the USSR, to achieve a serious regime of international atomic control. For the United States and other powers to work together to place atomic weaponry under the control of a transnational body and to prevent its surreptitious development anywhere, they would be taking on political tasks that would amount, in many ways, to a kind of international government. No one in the American government, apart perhaps from Stimson, had articulated officially whether such action could be reconciled with American sovereignty in a fashion that the American public could understand, much less accept.

Moreover, the clear determination of the Soviet Union to reject American proposals for a new world order, to defy American demands for liberalization in Eastern Europe, and to insist on the Security Council veto gradually pushed the Truman administration toward the realization that international control was pointless and unattainable in any event as long as the two postwar great powers were unwilling to collaborate. Stimson clearly understood this, and so did the Joint Chiefs in their early 1946 memorandum. When Truman announced, "for the record," in October 1945 that other nations would have to get atomic bombs "on their own hook," he perhaps was indicating that he understood this too. As we will discuss further, the question of atomic control and Soviet-American rivalry could not be separated: one could not be solved without the other. Was Truman aware of this early on? It is possible.

Atomic espionage thus was not the cause of the failure of international

control. What the atomic spies did, rather, was deliver a double-barreled, fatal blow to any remaining chances that it might succeed. We have shown already that espionage made international control a political nightmare for the new president. It takes only a moment to grasp that Truman, and for that matter any president, could never have survived the firestorm that would have raged had he moved seriously to turn the American atomic arsenal over to the United Nations while the news of systematic Soviet espionage on American soil filled the headlines. Hoover understood this, and he may well have believed that his tacit political threats were necessary to prevent a government laden with traitors from giving away the American bomb.

But even if Truman could disregard the domestic political consequences of international control, espionage also ruined its prospects at the level of basic foreign policy. The espionage revelations provided tangible evidence to Truman, when he had little else to go on, that whatever Stalin or Molotov said, the Soviet Union was now less likely than ever to accept an American-defined world order. From the American perspective, espionage meant that Stalin could now be confident that he would get a bomb relatively soon and hence had less reason to bend to the pressure of the American monopoly.

Conversely, the revelations also made the actual process of international control a much more dangerous one for the United States to pursue. International control would now have to involve not simply the transfer of American weaponry to the international body, a process that the United States could oversee, control, and halt any time it wanted to, but also the supervised transfer of Soviet atomic technologies and materials, a process that would be impossible to verify absolutely, and one that would require a forthright and unconditional American transfer of its arsenal if control was to go forward. In a condition of American monopoly, other nations would have no choice but to accept American promises that it was transferring everything it had to the UNAEC. What else could they do? But now that the USSR had a card to play, the United States would have to deliver its atomic arsenal to the United Nations without being absolutely sure that the Soviet Union was not holding something back—it would find itself, in other words, in the position of other nations

facing the American monopoly. Espionage made it imprudent for the United States to rule out the possibility that the Soviet Union had an advanced atomic project. This meant it would have to take risks to achieve international control, rather than establishing it on its own terms. Nations tend not to take such risks when they have other alternatives, and Truman's United States was no exception.

The incendiary politics of atomic spying, an issue that culminated in the spectacle of McCarthyism and the execution of the Rosenbergs in the early 1950s, created a substantial gap in the official record of Truman administration atomic policy in the early years of the Cold War. We have almost no released records of Truman's reaction to the ongoing reports the White House received from Hoover, nor to the public revelation of the spying by the columnist Drew Pearson in February 1946. This gap makes it impossible to demonstrate conclusively the effect of espionage on Truman and his policies on international atomic control. At this point, the historian can either give up and look for other explanations, or she can deduce one based less upon express policies than on political logic and actions undertaken. Because other explanations fail adequately to account for the strange politics of atomic control and the Baruch Plan, a deductive and circumstantial case becomes necessary. That is what we have put forward above.

Indeed, the striking absence of records relating to Truman's reaction to the atomic espionage itself indicates, like Sherlock Holmes's dog that did not bark, that there was something more to the story. Is it possible for a historian to claim seriously that the absence of official documentation on Truman's reaction to the espionage scandals means therefore that it was unimportant to the president and his aides? Espionage immediately raised the possibility of a political scandal that could strike deeply into the Democratic Party, profoundly altered the American public's attitude with respect to the Soviet Union, and was announced to a shocked American public by a *syndicated columnist* after months of administration cover-up. It led to a broader anticommunist campaign that gouged American politics and society during the late 1940s and early 1950s and ruptured the New Deal coalition of the Democratic Party. It

begs reason to conclude that the absence of released documents demonstrates that espionage did not have an important effect on Truman, both in terms of domestic politics and, as we have argued here, foreign policy. Because of the sensitive and scandalous nature of the issue, Truman had good political reason to deal with the problem privately and secretly. Historians have less reason to take his silence at face value.

One example of the documentary void is particularly instructive. A senior State Department official during the early Truman years, John Hickerson, mentioned in an oral history interview for the Truman presidential library a previously unknown account from late 1945. During the last couple months of that year reports on the Canadian spy ring arrived in the White House, one for consumption by State Department officials such as Hickerson, and another one which Hickerson said was read only by Truman and his chief of staff, Admiral William Leahy, and then, according to the historian Robert Messer, placed in an Oval Office safe.⁴⁶ There is no record of Truman's or Leahy's reaction to the secret reports, or of the State Department's analysis of the less-sensitive versions, or of the reports themselves. In Canada, relevant files are missing, as is every entry for the months of November and December 1945 in Prime Minister King's otherwise complete diaries spanning the entire first half of the twentieth century.⁴⁷ Perhaps it is an insignificant coincidence that this evidence is missing. Perhaps we are dealing with a very quiet dog.

6

STALIN AND THE BURIAL OF INTERNATIONAL CONTROL

In the spring of 1946 Baruch, with his tough proposals for international control, was busy working out his differences with the authors of Acheson-Lilienthal Report, who carefully avoided the treacherous subject of sanctions. At the end of May 1946 Washington still had no policy for international control of atomic energy. Byrnes remained noncommittal. Asked whether he had a policy to propose, he said: “Oh hell, I have none,” and advised Baruch to put forward his views.¹ Baruch declared on June 6 that he had “lost confidence in being able to work this out satisfactorily with Truman and Byrnes.”² In the meantime, other member states of the Atomic Energy Commission already had their delegates on the ground in New York, eagerly expecting the first meeting. On May 6 Baruch wrote to Byrnes, “We must avoid any appearance of procrastination that might arouse suspicion . . . of any of our associates in the United Nations.”³ Despite Baruch’s promise to “move rapidly,” policy discussions stalled, and a month later the U.S. delegation could no longer avoid the appearance of procrastination. Finally, after much back-and-forth, Truman approved Baruch’s vision for sanctions—just a week before the UNAEC was set to begin much-delayed deliberations.

How did these developments appear from the Soviet perspective? The establishment of the UNAEC by the U.N. General Assembly was greeted with enthusiasm in Moscow. In a speech on January 24, 1946, Soviet Deputy Foreign Minister Andrei Vyshinskii declared that the commission was the “first important step of joint efforts of the United Nations

in providing for peace and security in the world.” These efforts, argued Andrei Gromyko, the Soviet permanent U.N. representative, had to center on the postwar cooperation of great powers “in the spirit of unanimity and agreement.” This was the key reason for subordinating the UNAEC to the Security Council.⁴ The commission was a logical venue to test Stalin’s assumptions about the postwar order: whether or not the Americans were really willing to cooperate. If they did, they would have to abandon atomic blackmail and perhaps even share nuclear know-how with the USSR. The chances were slim from the outset.

Yet reportedly the Soviet Foreign Ministry eagerly expected the commission to begin its work so as to see what nuclear secrets the Americans would bring to the table.⁵ Delays in the U.S. appointment of a representative to the commission caused considerable consternation in Moscow. The Americans appeared to be dragging their feet in order to hang on for as long as possible to their atomic monopoly. Fears already voiced in Soviet policy circles in November 1945—that the Truman-Attlee-King joint declaration was only a cover-up for U.S. efforts to preserve its atomic monopoly—were now confirmed by American hesitance to proceed quickly and smoothly toward a genuine international discussion of control.

One example of such thinking can be seen in a special memorandum prepared on March 29, 1946, by the senior Foreign Ministry analyst Georgii Saksin. Noting the delay in the appointment of a U.S. representative to the Atomic Energy Commission, Saksin concluded that it was caused by the “desire of the USA and the countries which participated in the manufacture of the atomic bomb to postpone the work of the Commission and thereby put obstacles in the way of implementation of international control over atomic energy.” Saksin also summarized statements by Byrnes and prominent senators that indicated to him that Washington would not be inclined to share atomic secrets with the USSR and, moreover, would not consider itself to be bound by the decisions of the AEC unless these decisions corresponded to U.S. interests.

Saksin analyzed in some detail the discussions in the United States of the idea of national control of atomic energy, which centered at the time on the problematic issue of whether the U.S. Atomic Energy Commis-

sion should be made up mainly of military or civilian personnel. He was worried that the military point of view would carry the day in the end, but in any case he noted that the discussion of atomic energy control in the U.S. Senate (and in the media) had a “clear anti-Soviet character.” The conclusion: “All of this shows that American government and military circles, which are dominated by anti-Soviet views, are not willing to proceed toward establishment of international cooperation in the sphere of control of atomic energy.”⁶

One curious aspect of Saksin’s report is his implied definition of international control. For him it came down to no more than the United States sharing its atomic secrets with the USSR. This was one of the main reasons for the Soviet agreement to the establishment of the U.N. Atomic Energy Commission in the first place. Control, in the sense of Washington sharing nuclear know-how with the USSR, was a gulf apart from the idea of supranational control put forward in the Acheson-Lilienthal Report. Another reason for Soviet participation was to use the UNAEC platform to accuse the United States of atomic blackmail. These two considerations formed the basic Soviet policy with regard to the commission.

With policy thus specified, Moscow appointed Gromyko as head of the Soviet delegation to the AEC. Gromyko, despite his youth (at thirty-six, less than half Baruch’s age), was already an experienced diplomat, having served as the Soviet ambassador to the United States since 1943. But Gromyko did not get to pick his team of experts. The General Staff and the Special Committee were both involved.⁷ On the advice of Special Committee members Igor Kurchatov, Boris Vannikov, and Mikhail Pervukhin, Beria approved Dmitrii Skobeltsyn and Semion Aleksandrov as scientific consultants to Gromyko.⁸ It was of course expected that the Special Committee and the military would be involved in the affairs of the Soviet delegation to the UNAEC. But the arrangements also show that Soviet atomic diplomacy was never more than a branch of the Soviet atomic project. It did not have a separate status as a foreign policy issue.

No matter who represented the Soviet Union at the Atomic Energy Commission, the chances were that they would not have much personal

input into the formulation of Soviet policy. Before departing for New York on May 19, Skobeltsyn and Aleksandrov were briefed by Molotov about the position they had to take.⁹ In fact, detailed instructions were still in the making. Only on May 22 did the first draft of the Soviet proposal to the commission (prepared on Molotov's earlier instructions) reach the desk of Deputy Foreign Minister Vyshinskii. The author of the proposal, Aleksei Roshchin, head of the Foreign Ministry's International Organizations Department, noted that the Americans "intended to put the brakes on [UNAEC] activities" and that the Soviet delegates had to counter this strategy by putting forward ideas that would "move the work of the Commission in the needed direction."¹⁰

The "needed direction" was more accurately several directions: first, conclusion of the convention on the prohibition of atomic weapons, then exchange of scientific information. The first proposal entailed renunciation, by all participating states, of the use of atomic energy for military means, and, with reference to the United States, demanded destruction of all existing stocks of atomic weapons within three months. The purpose of this convention was entirely transparent. If Washington agreed, it would have to unilaterally destroy its atomic stockpile and cease to manufacture new bombs, while the Soviet Union would be free to bring its own atomic program to a successful conclusion. In the likely scenario that the United States rejected this convention, the Soviet Union would still stand to benefit from propaganda against American atomic monopoly.

The other proposal was to create two committees under the UNAEC. One committee would discuss ways to eliminate the threat of atomic war (effectively, to serve as an instrument of Soviet propaganda). The other committee was to consider the question of exchange of scientific information about practical application of atomic energy. The proposal outlined in intricate detail just what kind of information Moscow wanted to "exchange" (receive from the United States): scientific discoveries related to atomic fission, technology for the application of atomic energy, organization of industrial production and location of uranium deposits.

Was there anything of value for the Soviets in the information that would be furnished to the UNAEC under the Gromyko Plan? Collection

of atomic intelligence was the trade of professional Soviet spies, though, as Amy Knight shows, in their ardent pursuit of spying quotas, the GRU and the NKVD often supplied Moscow with useless generalizations.¹¹ But the lines between espionage and diplomacy were blurred at best—sometimes to the point of farce as later captured in the character Soviet Ambassador Sadesky of the 1964 film *Dr. Strangelove*.

For example, the U.S. consul general in Vladivostok, O. Edmund Clubb, reported on November 14, 1945, that he had been approached by the local Foreign Ministry representative, Dmitrii Ryzhkov, who asked “whether he could be supplied with any pictures treating the subject of the atomic bomb.” Clubb concluded that the approach indicated that “Soviet government representatives and agents everywhere may have been instructed somewhat urgently to obtain from every source possible all available information which would be sifted for clue to desired secret by Soviet scientists.”¹² If Clubb was right in his suspicions (and he probably was), Soviet interest in the “exchange of information” in the UNAEC context acquires a new light.

Roshchin forwarded these recommendations to Molotov on May 29; they formed the basis of the Soviet proposals at the U.N. Atomic Energy Commission—the Gromyko Plan (though Gromyko had nothing to do with its development). Formulation of this position, as far as one can say on the basis of declassified Russian records, was not marked by policy differences, as had been between Baruch and the Acheson-Lilienthal group. Decisions were made at the top, in all probability by Stalin, whose main aim in early 1946 was to do everything possible for the Soviet Union to obtain the bomb while diplomatically undercutting U.S. “atomic monopoly” by talk of prohibition of nuclear weapons. This was what Gromyko was instructed to do at the UNAEC.

On June 14, 1946, Baruch announced his plan at the first session of the Atomic Energy Commission. Baruch spoke of the “black portent of the new atomic age,” behind which was a “hope, which seized upon with faith, can work our salvation.” That hope was in the creation of the International Atomic Development Authority with broad responsibilities, including “managerial control . . . of all atomic energy activities potentially dangerous to world security,” “power to control, inspect, and license all

other atomic activities,” “the duty of fostering the beneficial uses of atomic energy,” and “research and development responsibilities.” Baruch said, further, that “the peoples want a program not composed merely of pious thoughts but of enforceable sanctions,” which required the removal of the veto power from the realm of atomic energy. As for dismantling U.S. atomic stockpile and sharing information with the USSR—the points of greatest interest to the Soviet delegation—Baruch promised such concessions in the future, after, by successive stages, reliable safeguards had been put in place and the Atomic Development Authority had become fully operational.¹³

Perhaps aware of the need to defend the ADA against the charge of compromising national sovereignty, Baruch argued that the people were “not afraid of an internationalism that protects; they are unwilling to be fobbed off by mouthings about narrow sovereignty, which is today’s phrase for yesterday’s isolationism.”¹⁴ Gromyko, who presented Soviet ideas for international control on June 19, most emphatically defended national sovereignty and rejected Baruch’s proposal to remove atomic energy from under the power of veto in the Security Council as “incompatible with the interests of the United Nations.”¹⁵ This was no surprise; it had been one of the main Soviet points in the December discussions in Moscow. The Soviet aim was to deprive the U.N. Atomic Energy Commission of even the potential for doing anything that could interfere with or undermine the intensifying Soviet nuclear project.

In explaining Soviet initiatives, Gromyko emphasized the “extreme importance” of the convention for the prohibition of atomic weapons—this was ostensibly of greater importance to the Soviet Union than was exchange of information. Sharing of nuclear secrets, even if that came about, was of less practical than symbolic significance for the USSR: it would speak to Washington’s willingness to be on equal terms with the Soviets. This idea of great-power equality was central to Stalin’s postwar thinking. The Soviet approach toward the UNAEC is only one example of such thinking. Equality was fundamentally incompatible with the U.S. atomic monopoly—that is why Gromyko stressed the necessity of concluding convention before anything else. The mere American possession of the bomb helped “increase suspicion of some countries [USSR] in re-

gard to others [the United States] and give rise to political instability.”¹⁶ Stability was possible only when there was a balance of power—military power but also psychological power, where the bomb gave the U.S. such an advantage.

Difficult Negotiations

That said, Soviet perception of the bomb as a weapon had changed little in the months since Hiroshima. Real changes did not begin until 1948. On February 7 of that year the Special Committee discussed for the first time the necessity to reevaluate “many points in the military science” in light of the development of atomic weapons, and sharp turns in military strategy came only with Stalin’s death in 1953.¹⁷ But keen Soviet interest in the U.S. nuclear weapons program did not end with the charred hand that Ivanov and Sergeev brought from Hiroshima. In fact, in 1946 Moscow eagerly sought ways to assess American atomic power, and the talk of international cooperation and control of nuclear energy provided unusual opportunities for such assessment, which is one of the reasons why there was so much interest in Moscow about Byrnes’s UNAEC proposals in the first place.

When the news surfaced of a planned U.S. nuclear test in the Pacific, Soviet leadership wasted no time in applying for a permission to send observers to witness the spectacle. Instructions to this end were passed by Molotov to the Soviet embassy in Washington on February 2, 1946. Ten days later, the U.S. *chargé d’affaires* George Kennan handed Molotov a letter from Byrnes, who said that the test had not yet been agreed upon, and so no invitations could be issued to observers. The Soviet foreign minister said nothing, but the letter was nevertheless forwarded to Stalin.¹⁸ In March one Soviet diplomat suggested that the Americans be reminded about invitations to Soviet observers, though this idea was apparently turned down by Vyshinskii, perhaps as too embarrassing.¹⁹

Invitations finally came in May 1946. After discussions among Beria’s committee, Admiral Nikolai Kuznetsov of the navy, and the Foreign Ministry, Mikhail Meshcheriakov and Semion Aleksandrov were sent as observers on a lengthy cruise in the Pacific. Although both were scientists,

the Soviet observers perhaps had interests outside academia. This was especially true of Meshcheryakov, who used his journey in the Pacific to spy on U.S. defenses, on which he reported extensively in a secret memo to Beria's deputy V. A. Makhnev on September 1, 1946.²⁰ The Soviet observers' report to the Special Committee regarding the actual nuclear test was, unsurprisingly, narrowly empirical and squarely concerned with military matters. It is important to note, though, that Stalin's skeptical assessment of the military significance of the bomb was only provisional, subject to change with every new fact that the Soviet military and security establishment gathered with its remarkable scrupulousness.

On July 1, 1946, Meshcheriakov and Aleksandrov participated in the first public display of atomic destruction at the Bikini Atoll in the Pacific Ocean. The two betrayed no emotions at the sight of the explosion. Aleksandrov merely shrugged his shoulders, pointed to the mushroom cloud, and muttered: "Not so much."²¹ Internal Soviet analysis of the Bikini tests bore a mark of skepticism. On July 13 Kurchatov, Khariton, and Vannikov prepared a report for Molotov which downplayed the results of the test:

1. The bomb exploded in the air very precisely near [battleship] "Nevada."
2. When the bomb exploded the ships showed exceptional viability; therefore results of the explosion were insignificant in comparison with what had been expected here.
3. Everyone's disappointment with the results of the explosion of the atomic bomb in the air over very closely placed ships is turning here to a hope to obtain destructive results for the ships from an underwater explosion.

Molotov was also advised that even American officials spoke with disappointment about the results of the atomic test—that the Pearl Harbor attack was much more effective, that the extent of radiation had been overestimated, and the like.²²

Official Soviet reaction to the Bikini tests was muted. It was not until July 3 that *Pravda* even mentioned the explosion, and when it did, it predictably accused the United States of duplicity in, on the one hand,

advocating international control, and, on the other hand, perfecting the atomic bomb and using it as a tool of blackmail in international politics.²³ But most Soviet comments on the Bikini tests downplayed the power of the atomic bomb. A *Pravda* commentary called the results “far more modest” than what had been expected. And then—silence. Only Professor Aleksandrov offered insights to journalists after he disembarked from the USS *Panamint* in San Francisco on August 12. “The Soviet government,” he said, “is planning some time to have a demonstration of the atomic bomb.” The test would take place “some place in Russia where it would not be dangerous to people or world life.” Aleksandrov predicted that the USSR would test its first A-bomb “in the measurable future” and would even invite members of the United Nations for the demonstration. Pressed for information, Aleksandrov reportedly declared: “I do not know whether we have an atomic bomb right now—perhaps we have, perhaps we have not. But I believe that very soon we will have everything you have in the United States. We have worked for many years on atomic energy in the Soviet. Russia has the raw material and the personnel.”²⁴

Such remarks coming from an authoritative Soviet source naturally stirred U.S. media excitement. The *New York Times*, for example, headlined the story: “Soviet Has Atomic Bomb Ready to Test, Russian Scientist Implies.” Although this implication was very far from the truth (the Soviet Union was months away from its first nuclear reactor, much less a bomb), there was no official reaction from Moscow to Aleksandrov’s remarks. But there was a discussion of the subject in the Soviet leadership. As a result of an exchange of opinions between Beria, Molotov, and Deputy Foreign Minister Vladimir Dekanozov, it was decided “not to publish a denial on this question but only go as far as issuing a directive to professor Aleksandrov not to give any interviews without an appropriate permission.” Then the issue was brought to the attention of Stalin, who apparently acceded to this strategy.²⁵

It suited the Soviet leadership to keep the world guessing about Soviet atomic ambitions and progress in the development of the bomb. Soviet propaganda accused the Americans of atomic blackmail while minimizing the bomb’s significance, yet cultivating just enough uncertainty to erode

Washington's confidence in its own monopoly on the secret weapon. Even Molotov did not mind a role in the masquerade. He announced, in his speech at the U.N. General Assembly on October 29, 1946, that "one must not forget that for one side's atomic bombs the other side may find atomic bombs and something else."²⁶ Thus Molotov not only resisted U.S. atomic blackmail but even turned it around and threatened the United States, even in the absence of the atomic bomb or "something else" to show for it. Some time after this beautifully orchestrated bluff, Stalin commented to Molotov: "My, you are strong!"²⁷

In the meantime, U.S. and Soviet negotiators came to loggerheads, and talks at the Atomic Energy Commission continued for two months without noticeable results. Determination to stand strong in the face of U.S. atomic "intimidation" rendered the Soviet diplomatic stance at the commission inflexible. Baruch, too, was unyielding. Each side insisted on its original plan laid out publicly in June: an international authority backed by the power of sanctions (as Baruch envisioned) and an international convention banning nuclear weapons, with the establishment of a toothless commission to talk about issues of international control and exchange of information (as advocated by Gromyko). On August 6, after the two sides again crossed swords in a hopeless polemic about the virtues of the respective plans, it was decided to postpone further meetings until the Scientific and Technical Committee, composed of experts from members of the commission, reported on the general feasibility of international control.

Meetings of the scientific experts were less ideologically and politically charged than the formal sessions of the AEC. The Dutch expert Hendrik Kramers suggested that his colleagues discuss matters in their personal capacity as scientists and not as representatives of their respected governments.²⁸ The spirit of this proposal was in tune with a shaping consensus among nuclear scientists in the West that they bore special responsibilities for preserving world peace. Western scientists tried their best to achieve an understanding on this point with their Soviet colleagues, but it invariably turned out that Soviet science merely echoed the tenets of Soviet propaganda. Soviet scientists were Soviet first, scientists second. This, of course, did not rule out quiet Kapitsa-style resentment, but on the whole

the idea of international scientific solidarity in the name of peace proved to be illusory. In order to appreciate just what international scientific solidarity meant for the Soviets, we must take a step back in time.

Scientists and Realists

On a November day in 1945 the Danish physicist Niels Bohr encountered Russian visitors at his institute in Copenhagen. One of the visitors introduced himself as Iakov Terletskii, a nuclear physicist from Moscow. Bohr had never heard of Terletskii, but he carried a letter of introduction from the physics heavyweight Petr Kapitsa, whom Bohr knew well and respected. In his recommendation, grudgingly written under Beria's pressure, Kapitsa said that Terletskii "will explain to you the goals of his foreign tour."²⁹ These goals entailed twenty-two technical questions on atomic fission, composed by Kurchatov and his team. Beria may have hoped that Bohr, a physicist familiar with some of the details of the U.S. atomic effort, would voluntarily disclose sensitive data. But Bohr's replies to the NKVD physicist were disappointing, consisting mostly of known facts and bereft of any secrets.³⁰

But in one passage, dutifully written down by Terletskii, Bohr, as if realizing (as he probably did) whom the "young Russian physicist" really represented, addressed broader implications of the atomic age:

We need to consider the establishment of international control over all countries as the only means of defense against the atomic bomb. All mankind must understand that with the discovery of atomic energy the fates of all nations have become very closely intertwined. Only international cooperation, the exchange of scientific discoveries, and the internationalization of scientific achievements, can lead to the elimination of wars. . . . All scientists believe that this greatest discovery must become the property of all nations and serve for the unprecedented progress of mankind.³¹

In this passage, Bohr took his personal struggle for international control of atomic energy a step beyond his efforts in early 1944. Then he had

met with Roosevelt and Churchill to warn them of the dangers of nuclear monopoly. Now he made an appeal to Stalin, arguing against leaving the atomic bomb in the hands of a “group of politicians.” Bohr’s passionate defense of scientific solidarity for world peace did resonate with the thinking of one man in Moscow, but that man was not Stalin. It was Bohr’s old acquaintance Petr Kapitsa, who himself argued in a letter to Stalin for “greater trust between scientists and statesmen” and, in rare defiance of Stalinist constraints, maintained his own correspondence with Bohr exploring themes of international scientific solidarity.

Stalin and Beria saw both Bohr’s far-reaching propositions and Kapitsa’s modest complaints about bureaucratic arrogance, and were predictably uninspired. Bohr’s appeals fell on deaf ears; Kapitsa’s complaints solicited Beria’s suggestive response—he presented the physicist with a hand-gun.³² In 1946 Russia’s foremost advocate of scientific solidarity was disgraced and thrown out of his institute: Soviet bomb makers did not appreciate his agenda. Iurii Smirnov once asked the designer of the first Soviet A-bomb, Iulii Khariton, why Kapitsa lost his job. “He picked too many fights,” answered Khariton.³³ Unlike the maverick Kapitsa, Soviet bomb makers did not pick fights. They worked with the bureaucrats for a single goal single-mindedly, and international scientific solidarity, with its special emphasis on the scientists’ responsibility in maintaining peace, had to take a back seat to the “problem number one.”

Western physicists did not seem to appreciate the political constraints of Soviet science. Among the most persistent advocates for international collaboration in scientific research was the famous French physicist Frédéric Joliot-Curie: in late 1944 he approached the Soviet ambassador in France with a proposal to put him in contact with relevant scientists in the USSR. Inevitably, though, it was Beria who evaluated Joliot-Curie’s request. Probably noting that the physicist was a known Soviet sympathizer, Beria requested Kurchatov to suggest someone who could productively meet with Joliot-Curie and question him about the latest developments in atomic research. Kurchatov was also charged with drafting a list of questions—he did so in a special letter to Deputy Commissar for Armaments Vasilii Makhnev on December 9, 1944.³⁴ The meeting apparently never took place, but Joliot-Curie persisted in his efforts to es-

establish cooperation. When he visited the Soviet Union for an academic gathering in June 1945, he told Soviet colleagues that “all his sympathies [were] on [their] side and, despite repeated American attempts to put him to work conducted in the USA, he [was] ready to provide all his knowledge and experience . . . in order to help the USSR to catch up and get ahead of America.”³⁵

Joliot’s proposal certainly intrigued the Soviets, and it was duly reported to Stalin. But excitement burned out when it became clear that Joliot aimed merely at “mutual consultations” with the Soviet scientists. In a letter to Stalin, Beria wrote that “Joliot’s proposed form of collaboration is unacceptable because of the secrecy of [our] work on uranium.” Only if Joliot agreed to move to the USSR, together with his team of scientists, “permanently or for a long time (3–5 years)” would his offer be acceptable to the Soviet leadership. If so, he could be put on par with German scientists working in the USSR—his services would be compartmentalized, and he would not learn of the actual extent of the Soviet atomic project.³⁶ Stalin need not incur all the blame for these restrictions. Indeed, Beria’s letter rebuffing Joliot’s approaches was based on an earlier draft bearing Kurchatov’s signature. With rare exceptions there was no conflict between the policy makers and the scientists on the atomic problem: both were on one side of the barricades in the race to break American nuclear monopoly.

American scientists also tried to establish closer links with their Soviet colleagues, if for no other than purely ideological reasons, but again with no results. For example, efforts in late 1945 by Albert Einstein and others to get Soviet scientists onboard a book project about the dangers of the A-bomb and the need for international control, “One World Or None,” ran aground: Einstein, Oppenheimer, Irving Langmuir, and Harold Urey may not have realized that their letter to the president of the Soviet Academy of Sciences, Sergei Vavilov, was immediately reported to Beria and Molotov, who sanctioned Vavilov’s negative response. Soviet scientists could not undertake independent initiatives; they were tied by bureaucratic strings to ominous Beria and intransigent Molotov—and ultimately to Stalin, who was unlikely to be converted easily to notions of supranational scientific control of atomic energy.³⁷ “One World”

turned out to be less united by common ideals than Einstein, Oppenheimer, or Bohr imagined. The Soviets were unmoved even though the authors of the appeal were all known physicists, perhaps even sympathetic to the Soviet Union. Indeed, Oppenheimer's profile, which had passed through Beria's desk, contained one sentence about his being a "secret member of the American Communist Party." Beria underlined the sentence—and when he did, he must have had something more practical in mind than sharing ideas for international control of atomic energy.³⁸

Einstein tried again in April 1947; through his Emergency Committee of Atomic Scientists he sent a letter to an old colleague in the USSR, Abram Ioffe, in which he again outlined the need for scientists to unite in order to bring about international control of atomic energy and the elimination of war. This letter, picking up the classification "secret" on its way, ended up on the desk of Andrei Vyshinskii, the deputy foreign minister. Although Soviet scientists urged a response to Einstein (which in any case would not depart from the general themes of the Soviet propaganda), Vyshinskii ignored this recommendation and Einstein's well-meaning letter was sent to the archive to gather dust as a testament to the shattered hopes of scientific solidarity.³⁹

For the majority of Soviet scientists the prospect of international scientific solidarity could not replace the imperative of solidarity with the party and the government. It was to be expected, of course, that public pronouncements by Soviet scientists regarding atomic energy would support Moscow's official policy. It was to be expected that whether Vavilov, or Ioffe, or even Kapitsa was approached, their responses to Western colleagues would follow the general pattern of a *Pravda* editorial. These fundamental political constraints of the Soviet system made any genuine dialogue between Western and Soviet scientists utterly impossible—even in theory—especially in as sensitive a matter as atomic energy. But now, thanks to the declassification of Soviet documents, we know just how the Soviet state put words in the mouths of its respected scientific community.

In July 1946 the Committee for Foreign Correspondence of the Federation of American Scientists circulated a letter that, reiterating all major points on the "One World" agenda, called on all scientists to take the

greater part of responsibility for the use of atomic energy, and advocated international control and abolition of warfare. This letter asked all recipients to answer four questions:

1. How do you react, how do your colleagues react, and how does your government react to the American policy as regards atomic energy?
2. What steps are the scientists of your country taking to establish control over the use of atomic energy?
3. What steps should be taken in order to intensify establishment of such form of international cooperation as student exchange, free exchange of scientific information etc.?
4. What other steps can we mutually take to strengthen the unity of the peoples of the world, which could prevent another war?

This letter was received by several Soviet scientists and, naturally, was passed right along the bureaucratic ladder to Vavilov.

As was the standard operating procedure in such circumstances, Vavilov consulted with Kurchatov and together they approached Beria with a recommendation that the letter should be left unanswered. Beria, in turn, requested Molotov's opinion on September 13, 1946, and Molotov agreed a few days later, "We should not respond."⁴⁰ This would have been the end of this particular effort to establish international scientific cooperation in control of atomic energy, but for the fact that in late September a copy of this letter reached Andrei Zhdanov, who was in charge of ideology in Stalin's Politburo. Zhdanov seemingly authorized a response—in any case, a draft response was prepared and returned to Zhdanov on October 28, 1946.

This response, written "on behalf of a group of Soviet scientists" by the *Pravda* commentator E. M. Zhukov, criticized American efforts to "impress others with their mightiness and even 'all-mightiness' in order to blackmail other countries, put them under pressure and impose [U.S.] will on them." In words that almost verbatim repeated Stalin's complaints to Harry Hopkins about U.S. Lend-Lease pressure in 1945, Zhukov stressed that the United States' use of atomic monopoly and "atomic diplomacy" to get its way in international politics reached "precisely opposite results." The draft response suggested the use of the U.N.

machinery to establish control over atomic energy, destroy existing atomic stockpiles, and avert the threat of war. Even this letter was eventually torpedoed by Molotov for being too explicit about Soviet atomic policy, and the Federation of American Scientists never received Zhukov's response.⁴¹

Zhukov's letter was a standard propaganda piece, and the fact that the Soviet scientists who were supposed to affix their signatures to it were not involved in the writing process speaks to the strength of Soviet political constraints. Approaches by Western scientists to Soviet colleagues, if they were not left unanswered (as they usually were), could elicit only official propaganda, with its inescapable emphasis on the attempted U.S. atomic blackmail and intimidation, and Soviet fearlessness in the face of these perceived American threats. By their emphasis on the U.N. machinery in control of atomic energy, Soviet scientists or their *Pravda* ghostwriters effectively declined any participation in the kind of international scientific front for peace envisioned by Western advocates of scientific solidarity. We have seen how genuinely interested were enthusiasts like Bohr and other Western scientists in international control; they appealed to policy makers, though unsuccessfully—Roosevelt, Churchill, Truman. In Moscow voices of enthusiasm were never even heard. Even Kapitsa's views, at least as he presented them to Stalin, hardly entailed the idea of renouncing national sovereignty. The Stalinist state was not the proper environment for proliferation of such idealist views.

Strategy and Tactics

These serious political constraints were felt all the more intensely by Soviet experts at the UNAEC. Yet the mode of operation offered by Hendrik Kramers—that of unofficial discussions among scientists in their personal capacities—worked surprisingly well for the Scientific and Technical Committee. Skobeltsyn cooperated with his colleagues in discussions of methods of international control. This work resulted in a report that considered from various angles atomic energy and its uses, as well as stages of production of atomic fuel. As for the key question of international control, the authors of the report claimed that there wasn't "any

basis in the available scientific facts for supposing that effective control is not technically feasible.”⁴²

Skobeltsyn’s participation made it appear that the Soviet experts would approve the joint report, especially when he announced that he had no objections to it. Skobeltsyn himself departed for Moscow on September 5. But on the following day his replacement, Aleksandrov, refused to approve the report, citing Gromyko’s busy schedule. In fact, Gromyko had already read this report and even prepared his own analysis of its main points, which he sent to Molotov, Beria, Vyshinskii, and Dekanozov as early as September 2. In this analysis, while pointing out that the Americans might use the joint report to support their plan, it was also possible “considering the neutral character of the report of the Scientific and Technical Committee, to use it in support of the correctness and soundness of our proposal about the convention.”⁴³

The joint report and Gromyko’s analysis were slowly digested in Moscow over the following weeks, where bureaucrats—not scientists—considered their intrinsic worth. Iakov Malik, who reviewed the report for Dekanozov and Molotov, found fault with the report’s lack of depth. The Americans did not give nearly enough information on their nuclear program, and the report became “a popular exposition of elementary and published information on the problem of atomic energy.”⁴⁴ This was, of course, disappointing, since the Soviet delegation saw exchange of scientific information as the main task of the committee.⁴⁵ On the other hand, the authors of the report were uncertain in many of their findings, recognizing that technical advances might make their analysis obsolete.

Malik concluded that the Americans would use the report to support their arguments in favor of strict international control—in particular, its conclusion to the effect that control was technically feasible. But Malik was optimistic because, after all, the report could also be turned on its head: its uncertainties made it plausible to “argue for the impossibility of implementation of effective control over atomic energy.” This meant that the Soviet delegation, keeping in mind this escape route, did not have to torpedo the technical report—which would in any case be “difficult” because, as Malik recognized, “the very process of production of any type

of energy is unthinkable without implementation of technical control over production of this energy.” Keeping these matters in mind, Malik proposed to back the report with a reservation that “most conclusions of the Committee’s report are hypothetical and conditional.”⁴⁶

Dekanozov agreed with these recommendations on September 20 and forwarded them to Molotov, who also signaled his approval. Six days later Aleksandrov raised his hand in favor of the report. He read out Malik’s reservation, but that did not prevent unanimous adoption of the report.⁴⁷ The sudden breakthrough was a welcome surprise for Baruch, who thought that Soviet-orchestrated delays worked to weaken his position at the Atomic Energy Commission and wore out U.S. allies in the matter of international control. In retrospect, it is clear that these delays were the result of Soviet red tape. There was no intention, from the beginning, to delay or much less torpedo the joint report of the Scientific and Technical Committee. It was seen by the bureaucrat Gromyko and the bureaucrat Malik as essentially inconsequential for the outcome of the struggle at the UNAEC.

After adoption of the joint report of the Scientific and Technical Committee, the UNAEC discussions shifted to Committee No. 2, which was responsible for matters of atomic energy in all its phases, from mining of ores to processing and production of uranium and plutonium at separation plants and reactors. Beginning in October 1946 committee discussions proceeded on an informal basis, to facilitate exchange of opinions among scientists and officials at the UNAEC. The tactic seemed to be paying off at first. In one example, which suggested Soviet willingness to cooperate with Committee No. 2, Aleksandrov volunteered to talk about Soviet practices for control of raw radioactive materials, noting that state possession of such materials simplified the problem of control.⁴⁸

Declassified Soviet documents reveal exactly what was behind this brief manifestation of good faith and agreeable spirit on the part of the Soviet negotiators. In a letter to Molotov, Aleksandrov claimed that he mentioned methods of control of raw materials in the Soviet Union in order to receive “useful information” about uranium and thorium mining in other member countries. This was done in accordance with Dekanozov’s

instructions to Gromyko. Aleksandrov argued that such information was in fact received from Canada, Brazil, and Australia.⁴⁹ Whether this was simply Aleksandrov's way of avoiding the blame for undue "openness" after his blunder in an interview in the aftermath of Bikini, or whether indeed the Soviet expert was carrying out the foreign ministry's instructions to the letter, it is clear that the brief spell of cooperation at the AEC in October 1946 was illusory and did not amount to Soviet willingness to adopt any of the proposed U.S. control measures.

Despite this intransigent attitude, changes were in the making in the Soviet position at the AEC. The new Soviet approach to the AEC began to take shape in October 1946, and it originated with the delegation to the commission, not with the Foreign Ministry bureaucrats. On October 12 Dmitrii Skobeltsyn, one of the Soviet experts at the commission, suggested in a report to Molotov and Beria, among others, that the time had come in negotiations with the Americans to shift from "passive defense" to "active offense." Skobeltsyn argued that the Soviet Union could accept a system of control over atomic energy but only a system that would be "fairly burdensome and constricting for America, with its existing large-scale [atomic] industry, and at the same time would not tie us down much for a considerably long period in the future." In other words, Skobeltsyn wanted a plan that would effectively control U.S. atomic industry while leaving Soviet hands untied.

Skobeltsyn's idea was to impose control on large atomic industry plans while resisting interference in national research and development. The United States would be disproportionately affected because it had the most advanced atomic industry in the world, while the Soviet Union would have a chance to catch up. It is important to take Skobeltsyn's proposal for what it was. It was not a radical departure from the Soviet approach to the issue of international control. He did not suggest that the Soviet Union accept any provisions of the Baruch plan, which would reflect on the pace of the Soviet atomic project. The idea was to turn the Baruch plan around in order to use it as a weapon against the U.S. atomic monopoly. After all, he wrote, "we, in essence, have better grounds to demand establishment of control than America." The main thrust of Skobeltsyn's proposal was to regain moral authority, which the Soviet

Union had lost in part because of Moscow's opposition to the idea of inspection and control.⁵⁰

A copy of Skobeltsyn's proposal made it to Aleksei Roshchin, who liked the idea and recommended it to Dekanozov. Roshchin emphasized that Skobeltsyn's proposal would prove detrimental to U.S. interests—indeed, that Washington could hardly accept it. Nevertheless, by seeming to make concessions to the Baruch Plan, the Soviet Union would win politically because the Americans would have to adopt a “defensive” posture, “which would even further weaken their position on the questions of atomic diplomacy.”⁵¹ The point was to adopt different tactics at the AEC with the same long-term strategy: creating moral and material obstacles to the U.S. atomic program while leaving Soviet hands untied.

Although Roshchin, with Dekanozov's permission, informed Molotov of Skobeltsyn's ideas, it took a long time before any of these ideas translated into real policy. There was no evidence of changes in the Soviet attitude toward the Baruch Plan when Molotov addressed the U.N. General Assembly on October 29, 1946. The foreign minister condemned the Baruch Plan in the strongest terms, portrayed Baruch personally as a warmonger or a maniac, and restated the Soviet case for a convention banning production and use of nuclear weapons.⁵² In the AEC the illusions of progress gave way to disappointment. By late November the Soviet negotiator Semion Aleksandrov felt that the two sides had “gone about as far as we can” in trying to reconcile directives given out by the two governments. The task was futile and Aleksandrov looked forward to a more general compromise higher up, which would make a solution to the standoff possible.⁵³

Then, on November 28, in another speech at the United Nations, Molotov unexpectedly called for “serious control” of atomic energy and proposed creation of “special inspection organs.” A few days later, on December 4, he went even further and pointed out that once created, the control commission should operate according to its own rules, outside the veto framework: “It must be perfectly understood that the question of the principle of unanimity, known to us, which is active in the Security Council, has no relation to the work of the commission.”⁵⁴ The revolutionary edge of Molotov's proposal was substantially blunted by his

insistence on the subordination of the control commission to the Security Council, where the veto did indeed apply. Here was an obvious Trojan horse: the commission could carry out its work without the danger of being “vetoed,” but only inasmuch as the great powers in the Security Council unanimously agreed. Another string of Molotov’s proposal was that it was conditional on U.S. acceptance of the Soviet-proposed convention banning production and use of atomic weapons.

Despite these limitations, Molotov’s agreement to the establishment of a commission for inspection and control amounted to a step in the direction of the Baruch Plan, as was readily recognized by Baruch himself in the AEC meeting on the following day. Baruch concluded that Molotov’s remarks indicated that the USSR “no longer regards the original United States proposals as unacceptable.”⁵⁵ Such optimism was hardly justified, given the limited nature of Molotov’s concessions. The spirit of the Baruch Plan was of course still unacceptable to Moscow, and acceptance of some language from the American proposals was only a tactic to win the sympathy of international public opinion. In this sense, Molotov’s proposals contained the same ideas as Skobeltsyn’s October report, even though there is no direct evidence of a link between the two.

These tactical changes in the Soviet position took place just as Baruch geared up to press his plan to a vote in the UNAEC despite Gromyko’s objections. Baruch had been concerned for some time that procrastination in voting on the American proposals only resulted in the loss of confidence in the United States by its supporters in the UNAEC.⁵⁶ He was desperate to have a vote before the year was out, with the planned rotation of AEC membership, after which it would take several more months before the U.S. delegation could win newcomers to its position. Valuable momentum would be lost. On December 5, 1946, Baruch submitted to the UNAEC a draft that repeated the substance of his earlier proposals, including insistence on sanctions and exemption from veto in the Security Council for those countries that had violated their obligations under the agreement. On Gromyko’s insistence the UNAEC adjourned for consideration of Baruch’s draft.

On the following day Gromyko submitted to Molotov two memo-

randums summarizing Baruch's proposals and suggesting a Soviet response. Gromyko argued that Soviet agreement to the establishment of the control and inspection commission had to be conditional on the U.S. acceptance of the convention on the prohibition and use of atomic weapons. Gromyko predicted that the Americans would continue to resist the idea of the convention because it would "bestow on them obligations that they are trying by all means to avoid, noting their monopoly position in the sphere of atomic weapons production." But the United States was weak on this point, Gromyko noted, in the "moral-political sense." It would be difficult for Washington to avoid the blame for using atomic weapons "as a means of political pressure on other countries, first and foremost on the Soviet Union."

Next, Gromyko considered likely U.S. insistence on the "stage-by-stage" thesis—that is, that the United States would offer nuclear know-how to other countries only when enforceable safeguards had been established. Gromyko thought that the Soviet agreement to a control commission would undercut this American proposition because establishment of such a commission could be interpreted as realization of the U.S. demands for enforceable inspection and control. In any case, Gromyko argued, "their position on this question is therefore becoming much more vulnerable than before." It is remarkable how strongly Gromyko emphasized moral grounds in his proposal for new tactics at the UNAEC. His thinking paralleled Baruch's at about the same time: what mattered was not what was accomplished at the commission or whether nuclear armaments had been brought under control but to what extent one's opponent had been morally discredited in the eyes of the international public opinion. This was atomic diplomacy par excellence, and it showed Gromyko as a good player, albeit a little slow, for a month earlier these proposals might have been disoriented the UNAEC to a much greater degree; now, though, in early December, the vote on the U.S. proposals was inescapably on the agenda.⁵⁷

In a subsequent memorandum to Vyshinskii, Gromyko proposed yielding to the United States on one further point: control and inspection of mining facilities. He pointed out that though it would naturally be in the Soviet interest to leave mining outside the commission's reach,

control and inspection of processing plants only—at this point exclusively U.S. facilities—was indefensible. Gromyko believed that “in the event if we resist control over raw materials, the Americans will use our position to wreck control of production (plants).” The key was to allow the newly established international authority to control these plants, and not on a “stage-by-stage” basis, as Baruch had insisted, but immediately after the conclusion of the treaty.⁵⁸

Was this anything more than a tactical move on the Kremlin’s part? Hardly, because as Gromyko made clear time and again, he remained completely opposed to the main tenet of the Baruch Plan: sanctions for violators, not subject to great-power veto in the Security Council. In his communications to Molotov on December 6 Gromyko insisted that Baruch’s proposal to exempt the AEC from the veto was “utterly unacceptable.” Sanctions were out of the question unless approved by a decision of the Security Council with all great powers concurring. This would naturally make any international control and inspection authority entirely toothless, and that was exactly what Moscow wanted. The difference between Gromyko’s previous instructions and his new proposals was that of tactics, not of strategy.

Between December 5, when Baruch put forward his draft to the AEC, and the end of that month the commission met several times in formal sessions, and delegations worked behind the scenes to make Baruch’s recommendations more acceptable to the Soviets. Gromyko, though, avoided detailed judgments on the merits of the American proposals in public meetings. Instead, he repeatedly called for a delay in order to “study” Baruch’s draft. In fact, as we have seen, Gromyko had studied the draft in great detail and submitted his counterproposal to Molotov on December 6, but it took several more weeks before he received concrete instructions from Moscow as to what line to take in the AEC sessions. Gromyko’s instructions arrived on December 27, 1946—so late that the Soviet delegates had virtually no time to influence UNAEC debate in the desired direction ahead of the December 31 deadline for the commission’s report; Baruch, meanwhile, was pressing as hard as he could for an early vote.

These instructions fell short, both in letter and spirit, of what Sko-

beltsyn and Gromyko had recommended in their reports. Although Soviet support for the idea of “control” was reaffirmed in general terms, Gromyko was told to insist on the conclusion of the convention on the prohibition of production and use of atomic weapons as an immediate prerequisite to any discussions of control and inspection. Thus the Soviet delegation returned to where it had been in June 1946. Without separating Baruch’s proposals into the conditionally acceptable and the unacceptable, as Gromyko had tried to do, the Foreign Ministry’s instructions dismissed the whole plan as “essentially unacceptable.” Still, Gromyko was advised not to reject it outright “for tactical considerations,” but to propose looking at the plan point-by-point. Gromyko was told: “Such a tactic is more flexible and may produce better results than simply rejecting the American draft. It must be clear that, by turning down our proposals, our partners will put themselves into an unprofitable situation, and will have to take the odium of a split upon themselves, if they dare to do so.”⁵⁹

Gromyko’s instructions thus not only came too late to make any real difference but, for all the talk of flexibility, did not go nearly as far as Gromyko and Skobeltsyn had deemed possible in undermining Baruch’s moral ground at the UNAEC. There is no better explanation for this pathetic performance than the entrenched conservatism and red tape of the Soviet Foreign Ministry, which in the end failed utterly in the tactical game of scoring points with the international public opinion against the United States, even in the absence of any intention on the Soviet part to go along with the Baruch Plan. As matters stood, when Gromyko made his long-overdue remarks at the 30 December UNAEC session—or, rather, when he essentially parroted word for word his instructions from Moscow—he failed to make any impression at all. Baruch called for a vote, and other delegations, except for Poland, rose in support. When the vote was taken the AEC report, based mainly on the U.S. proposals, was approved by ten votes to none, with the Soviet Union and Poland abstaining.

The submission of the first AEC report to the Security Council marked the end of one spectacular chapter of atomic diplomacy. One defining feature of this chapter was that it played out in the immediate postwar

years, at a time when wartime allies, the Soviet Union and the United States, were already beyond comradeship-in-arms but not yet at each other's throats. Cooperation was at least theoretically possible, despite deepening fears and shattered hopes on both sides of the descending Iron Curtain. Stalin had in mind such cooperation with the United States, which would assure "equality" in great-power relations while allowing him to solidify Soviet spheres of influence and rebuild strength after the devastating experience of the Second World War. He did not expect and did not plan for another war, convinced that Washington was in no position to invade the Soviet Union in the foreseeable future. The arrival of the atomic bomb changed nothing in this estimation.

One factor that did change, however, with the unleashing of the bomb at Hiroshima, was the balance of psychological power. Irrespective of how effective nuclear weapons could be on the battlefield (here Stalin clearly downplayed their significance), the bomb upset the notion of great-power equality, allowing Washington (in Stalin's imagination) to resort to implicit, and sometimes not so implicit, atomic blackmail. The result was the toughening of Stalin's foreign policy; he put on a brave appearance and became less inclined to compromise with the United States.

It is interesting to contrast the underlying motivations of Stalin's policy with the contemporary perception of this policy in the United States. Perhaps no other single policy document exercised greater influence on Washington's approach to the Soviets than George Kennan's so-called Long Telegram of February 22, 1946. In this masterfully worded analysis Kennan, at the time the *chargé d'affaires* in Moscow, argued: "Soviet power, unlike that of Hitlerite Germany, is neither schematic nor adventurous. It does not work by fixed plans. It does not take unnecessary risks. Impervious to the logic of reason, it is highly sensitive to the logic of force. For this reason it can easily withdraw—and usually does when strong resistance is encountered at any point. Thus, if the adversary has sufficient force and makes clear his readiness to use it, he rarely has to do so."⁶⁰ Push Stalin, Kennan seemed to say, and he will back down. The reality was much more complicated. While careful not to trigger an early war with the United States, Stalin interpreted the logic of force differently

than did Kennan. His interpretation seemed to be: withdraw in the face of pressure, and you will invite more pressure.

How, then, can one explain Soviet participation in the U.N. Atomic Energy Commission? On the one hand, it was never more than a cover-up for the Soviet atomic project. Stalin talked of prohibition of atomic weapons just as Kurchatov and his team worked around the clock to produce such a weapon. On the other hand, the UNAEC offered Stalin an opportunity to redress what he perceived as intensifying atomic blackmail on the part of the United States. The commission was a forum where the Soviet delegates could talk loudly about world peace and point a discrediting finger in the Americans' direction. After all, a continuing U.S. atomic monopoly was a good reason to complain of Washington's double standards and duplicity. Another Soviet hope was to extract valuable information about atomic weapons from the commission. In other words, Soviet participation in the UNAEC in no way signaled Stalin's willingness to embrace international control of atomic energy, except to the extent that the U.S. would unilaterally abandon its monopoly on the bomb. As a hardened realist, Stalin could not count on that happening.

The Gromyko Plan, presented to the UNAEC on June 19, 1946, reflected Soviet assessment of the commission as serving no practical purpose except for the dual aim of anti-U.S. propaganda and information gathering. This translated into an intransigent Soviet position at the AEC, resulting in a lack of progress in negotiations for a number of months. Realizing the difficulties of defending the original Soviet plan at the commission, Skobeltsyn and later Gromyko suggested tactical changes in Soviet policy, which in form would move Moscow closer to the Baruch Plan, but in substance simply restated the basic Soviet position: not to allow international control or inspection outside the Security Council framework, where the USSR exercised veto power. This basic Soviet strategy was evident to contemporary U.S. observers. As John Davis of the American embassy in Moscow argued in one report in November 1946, "It is evident that the USSR will not voluntarily cooperate in any effective international scheme for inspection and control of atomic energy. If under pressure it consented as a matter of tactics to *pro forma* inspection and control, it would still employ every ruse and strat-

agem to prevent such inspection and control from fulfilling the purposes for which they were designed.”⁶¹ What we know today of Stalin’s foreign policy priorities and Soviet behavior on the international scene, and the disclosure of documents on the gigantic scale of the Soviet atomic project in 1945–46, tend to confirm Davis’s conclusions. Soviet participation in the early efforts to control atomic energy was simply a part of Stalin’s survival strategy until he, too, had the bomb.

CONCLUSION

The Cold War arose from the growing confrontation between the Soviet Union and the United States during World War II, and then the decision by both new superpowers during the immediate aftermath of the war not to pursue substantial international cooperation. The obstacles to such cooperation were so intrinsic to American and Soviet foreign policies that some kind of rivalry was, at least at the outset, virtually inevitable. Conceivably, this initial hostility could have reversed itself: the two nations might have begun the serious work of developing a serious postwar security order, one that would avoid the fatal mistakes of the League of Nations. But the novel fears engendered by the atomic bomb made even this impossible.

The rivalry between the United States and the Soviet Union that eventually transformed into the Cold War grew to maturity during the Second World War. It was during their brief wartime alliance, especially during the last year of it, that the wide differences between American and Russian conceptions of the postwar world became increasingly apparent, and that the absence of normal diplomacy between the two emerging superpowers foretold harsh confrontation.

On the American side, the clash was not regarded as inevitable. President Roosevelt, together with some of his main advisers, wanted to find some way to cooperate with the Soviet Union, along with other major powers, for the purposes of building a new kind of international order

after the war. He initially hoped that this order would be characterized by American political and economic institutions, though he later stressed the idea of the “four policemen”—the United States, the Soviet Union, Britain, and China—providing a kind of global collective security. Roosevelt was never entirely clear about how such a regime would work, but what he did understand was that it had to involve the close collaboration of all the major powers—that it had to avoid the disastrous situation obtaining after World War I in which major states like Germany and the USSR were excluded from the League and hence free to pursue policies that the League could do nothing about. Yet Roosevelt did not seem to face up to the difficulties inherent in including the Soviet Union within this order. Like almost all American politicians, he was untrained in the practice of international power politics. The political tradition in America had, up until the Second World War, been almost exclusively concerned with domestic affairs and in particular the struggle to reform American capitalism by democratic means.¹ This struggle generated a brand of politics fundamentally hierarchical in nature, whereby the American government contended with competing interests in a realm in which it held unchallenged political authority. The New Deal, Roosevelt’s encompassing political experience before the Second World War, represented a kind of pinnacle of this brand of politics. Compromises, deals, and confrontations of a political rather than a violent nature among various interest groups and economic entities all constitutionally subordinate to the authority of the American state—this was politics as American leaders understood the term.

British Prime Minister Winston Churchill sought to guide Roosevelt toward a foreign policy view that better understood the unique nature of international politics and that might also serve the interests of the British Empire. A deep feature of Churchill’s strategy was his belief that Soviet power after the war would constitute a threat in and of itself to Anglo-American interests, and that therefore the United States and Great Britain should act to contain the USSR even as they were allied with it in the war against Nazi Germany. Roosevelt, perhaps unaware of the increasing contradictions in his wartime foreign policy, went along with Churchill’s demands, acceding to British wishes to delay opening the

second front and to the Hyde Park plan to share atomic technology bilaterally rather than with the world. Gradually, Roosevelt drifted in late 1944 and early 1945 toward a more anti-Soviet position.

But Roosevelt, and then his successor, Harry S. Truman, did not confront the fact that they could not pursue a policy of collaborating with the British to contain Soviet power while at the same time seeking a genuinely new international order that would include cooperation with the U.S.S.R. As many American officials, including Henry Stimson, warned, to realize a genuine international order, not a useless shell of one like the League of Nations, the United States was going to have to secure genuine Soviet participation. This meant, at the very least, persuading the USSR to abandon the Security Council veto and, in a more general sense, to sign on to some larger plan of political and economic integration that would prevent the two new superpowers from easily turning back to power politics. The Security Council veto was indeed central to this effort, because with the veto in place the world's great powers would not be subject to United Nations sanctions, which meant that any of them could commit aggression without being subject to reprisal by the international "community." As long as Stalin refused to bend on this issue, cooperation between the two states was going to be fruitless.

Truman, along with James Byrnes, seemed to believe that simply by operating from a position of strength the United States could compel Soviet cooperation, but such strategies cannot work in a realm of international politics. Unless the Americans were willing to wage war to compel Soviet compliance, they would have to offer the Russians inducements.

The United States would have to have undertaken radical steps to provide Russia with the assurance that it could not be threatened by the other Security Council powers, all capitalist allies of America, if they were not restrained by the veto. It would have to have restructured the Security Council to assuage Soviet fears, and to have disarmed itself and its major allies substantially. Certainly, as we shall discuss further, it would have to have taken profoundly risky steps to transfer its atomic bombs to a genuine international authority. During the war, Roosevelt and Truman never came anywhere close to considering such steps, much less imple-

menting them. They sometimes appeared to believe that a bit of arm-twisting might bring Russia around.

Even if the United States had actively pursued each of these policies, however, it is unlikely that Stalin would have reciprocated. The Soviet political tradition that reached its most extreme form in Stalinism fostered an attitude toward international politics that was as far from that of the Americans as is possible to imagine. Violent power politics, where physical as well as political survival was constantly at stake, was something that all Soviet leaders, above all Stalin, had known their entire lives. Stalin had risen to the top of a chaotic political scene in Russia by engaging in the most brutal, eventually even genocidal, form of peacetime politics history has ever known. What is more, after June 1941 the Soviet Union faced, for at least two years, the real and immediate prospect of conquest at the hands of Nazi Germany, a regime that had declared its willingness to enslave the USSR and had shown during its 1941 offensive that it meant what it said. To compare the political mentalities of Roosevelt, or even more to the point, Truman, with that of Stalin during the period, say, of 1932–45 is to engage in futility. Stalin's political history partook of a kind of survivalism that no American leader could possibly comprehend.

Furthermore, Stalinism followed a long-standing Russian tradition of distrustful international diplomacy. Russian statesmen had long distrusted the West, often with good reason, believing that Western treaties and agreements were always and without exception ploys to fool the guileless. This attitude was not exactly foreign to Stalin, especially after the 1941 disaster, and it was intensified by a Marxist-Leninist ideology that cast the USSR as a lone socialist nation besieged by a capitalist world bent on destroying it. In sum, it would be hard to devise a state less likely to be amenable to international cooperation than the USSR of 1945. George Kennan was not far off when he told James Byrnes in 1946 that “nothing short of complete disarmament, delivery of our air and naval forces to Russia and resignation of powers of government to American communists” could persuade the Soviet Union to trust the United States, and even then Stalin would still “smell a trap and would continue to harbor the most baleful misgivings.”²

By the end of the Second World War, therefore, the United States and the Soviet Union were primed to confront each other. The Potsdam Declaration and the rapid bombardment of Nagasaki indicated that the Truman administration was content to follow Roosevelt's policy of favoring international order in a general sense without taking the riskier steps to achieve it, believing perhaps that the specter of preponderant American power would cause Stalin to relent. Never did Truman order his aides to draw up a plan for serious collaboration with the USSR during this period, and never did he or Byrnes propose anything of the sort during meetings with the Russians in late 1945. The Soviet Union's continuing insistence on the veto, its brazen *Machtpolitik* in Eastern Europe, and its vituperative diplomacy in the London and Moscow meetings demonstrated as clearly as possible that Stalin had committed to the game of power politics that he assumed was unavoidable after wartime victory. Indeed, Stalin was probably literally unable to conceive of alternative possibilities. As he famously told Milovan Djilas, he expected that the world would recover from the Second World War in fifteen or twenty years, "and then we'll have another go at it."³

Conflict between the two states in the early aftermath of the war was in the cards. The United States was interested in international cooperation but unwilling to take the steps necessary to achieve it; the Soviet Union was uninterested in cooperation in the first place and resigned to postwar rivalry. The two nations stood for socioeconomic systems that were historically and ideologically incompatible. Neither Stalin, nor eventually Truman, was personally committed to a permanent form of international order. It was a dismal moment for those who hoped that this time, the recent world war might indeed be the war to end all wars.

But this makes the outbreak of the Cold War sound inevitable. Surely the two superpowers were not predetermined to become hardened and bitter enemies; surely they could have moved gradually toward a compromise peace, laying a possible foundation for evolutionary international cooperation—the slow development of trust-building institutions, incremental economic integration, modification of the Security Council?

Perhaps a permanent peace was not obtainable in 1945. But could it not have been gradually sought?

It is here that the atomic bomb takes center stage in the history of the origins of the Cold War. Three consequences deriving from the atomic bomb forced the hands of American and Soviet leaders toward a rapid and irreversible confrontation, toward the recognition that gradual amelioration of their differences was impossible.

First was the Soviet Union's decision to commit itself, as national problem number one, to building a bomb. Stalin naturally believed that the silence emanating from the United States and Great Britain about their secret project indicated that they meant to wield their atomic monopoly against the USSR, and that Roosevelt's and Truman's increasing hostility, and finally the bombardment of Japan in August, reflected this intention. But even if the United States had informed Stalin of the bomb, as many Americans close to the White House advocated, even if Roosevelt and Truman had said nothing about Poland, and even if Truman had declined to use the bomb on Japan—as unlikely as any of these outcomes was—the USSR would still have pursued its own weapon with single-minded tenacity. Stalin believed in military power. It is difficult to conceive of anything short of war that would have persuaded him to give up pursuit of the bomb.

Second, and deriving from that decision by Stalin, was the American discovery and public revelation of Soviet atomic espionage in 1945 and 1946. This had the crucial effect of making open cooperation with the Soviet Union on atomic matters a recipe for political suicide for Truman, or indeed any American president. It also, in a deeper sense, informed him that the Soviet Union would probably be less willing to bow to tacit American pressure to agree to an international order organized on American terms. Why should it, when as far as Truman knew, the atomic spies could have given Stalin so many important secrets that the USSR was on the verge of building its own bomb? Indeed, why should the Soviet Union care about cooperation at all now? Perhaps this explained why they were so intransigent! Espionage put Truman in the position, should he continue to advocate serious cooperation with the Soviet Union, not only of courting headlines that screamed of Democratic Party treason but also of having to negotiate not from preponderant strength but

rather on the assumption that Russia might have the bomb itself soon too. The chances of Truman's going ahead with either course of action, not to mention both, approached zero.

Finally, and most important of all, the novel aspects of atomic weapons created new and much greater obstacles to the achievement of a genuine international order. Roosevelt and Truman had not thought much about what serious international cooperation would require. Niels Bohr, Henry Stimson, and others clearly had. They knew that the only way to achieve an enduring international order was to take war-making weaponry out of the hands of sovereign nations and give it to a genuinely international agency. As long as sovereign nations possessed major military power and international bodies did not, these nations would be able to threaten other states and the international agency would be powerless to stop them. Just as with the veto, no state would accept such a situation if it could do something about it. Was there any clearer lesson from the failure of Versailles?⁴

This dilemma has always confounded those who would seek a permanent peace. As the authors of the Joint Chiefs study in early 1946 understood, however, atomic technology made it an even more difficult problem to solve. In an atomic world, the authors argued, an international atomic regime of "ninety-nine percent effectiveness is no guarantee." This was so because a nation's illicit possession of even a few atomic bombs—"one percent" evasion—was certain to undermine international trust. Before the advent of atomic weaponry, nations determined to establish true international order could destroy their weaponry or transfer it gradually to an international agency. Nations suspicious that others were moving too slowly would have much less to fear, because war-making weapons in a nonnuclear age are not, individually, decisive. A nation might try to keep some tanks or ships for itself, but unless it could hide an entire fleet of ships or division of tanks, these weapons could not give it the ability to suddenly surprise its disarmed neighbors, overcome the international agency, and win a decisive victory. A nation using them to try to do so would be overcome by the international force.

In the atomic age, the stakes of abrogation become much higher. A state that secretly built a few ships or tanks could not easily threaten in-

ternational peace, but a state that built a few atomic weapons could. A state that secretly built a few atomic weapons could defy the international agency, immediately, by embarking upon conquest and threatening to attack the agency, or other states, with its nuclear weapons. Images of Hiroshima and Nagasaki would guarantee that this state would be taken seriously—that other states and the international agency would think twice before confronting it. Unlike tanks or ships, atomic bombs could be used quickly and decisively for this purpose, and unlike them as well, a serious arsenal could be built secretly. It is a problem that resonates to the present day.

For this reason, international atomic control requires a qualitatively different level of international action if nations are to be persuaded to place their trust in it. All nations would have to transfer all of their technological and physical means of building atomic weaponry to a powerful international agency, and this agency would have to convince all states that it had the power permanently to prevent any nation from secretly building another bomb. Unless all states could be sure that such a process was foolproof, they would face the danger that a nation might cheat and gain preponderant power.

States that are capable of building atomic weapons but choose to turn their resources over to the international agency would therefore have an overwhelming interest to prevent such abrogation, which could be achieved only via the subjection of all states to deep scrutiny by the international atomic agency. What nation in such circumstances would relinquish every possible means of building an atomic bomb without being absolutely sure that a rival could not secretly cheat and build its own arsenal? These nations would demand a thorough inspection and verification regime and would insist that the international agency be granted expansive power to interfere in the internal affairs of any state in order to prevent it from cheating. For international control to work in the atomic age, in other words, the international agency would have to become like a state itself.

The United States already had the bomb. The Soviet Union was working on its own. To alleviate each state's fears of the other, international control would have to entail surrender to an international agency by each

side of everything it possessed that might be used to build an atomic bomb and the acceptance of intrusive, statelike control by that agency as well. In effect, as the survey authors noted, each state would have to surrender its sovereignty to the agency. The chances of the United States, not to mention the Soviet Union, accepting such an arrangement were zero. And since both sides knew this—the USSR all along, the United States eventually—they came to realize as well that piecemeal evolution toward international cooperation was pointless. In the atomic age, there is no middle ground: the choice is either sovereignty or international government. The Soviet Union and the United States chose the former. The Cold War was on.

NOTES

Introduction

1. For a similar treatment of a bilateral relationship even more distant and incommunicative than this one, see Akira Iriye's analysis of U.S.-Japanese relations during World War II, *Across the Pacific* (Cambridge: Harvard University Press, 1967).

2. On this point also see Robert McMahon, "Toward a Pluralist Vision: The Study of American Foreign Relations as International and National History," chapter 3 in Michael Hogan and Thomas Paterson, eds., *Explaining the History of American Foreign Relations* (New York: Cambridge University Press, 2004).

3. McGeorge Bundy, *Danger and Survival: Choices About the Bomb in the First Fifty Years* (New York: Random House, 1988); John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941-47* (New York: Columbia University Press, 1972); Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986); Warren Kimball, *The Juggler: Franklin Roosevelt as Wartime Statesman* (Princeton: Princeton University Press, 1991); Mark Stoler, *Allies in War: Britain and America Against the Axis Powers, 1940-1945* (New York: Oxford University Press, 2005); Warren Kimball, *Forged in War* (New York: Harper, 1997); Septimus Paul, *Nuclear Rivals: Anglo-American Atomic Relations, 1941-52* (Columbus: Ohio State University Press, 2000); Martin Sherwin, *A World Destroyed* (New York: Knopf, 1975).

4. Gar Alperovitz, *The Decision to Use the Atomic Bomb* (London: HarperCollins, 1995). Barton Bernstein, "The Atomic Bombings Reconsidered," *Foreign Affairs* 74 (January-February 1995), and "Correspondence," *International Security* 16 (Winter 1991-92) are his two best treatments; also see his lengthy commentary on Hasegawa's *Racing the Enemy* at <http://www.h-net.org/~diplo/roundtables/PDF/Maddux-HasegawaRoundtable.pdf>. J. Samuel Walker, *Prompt and Utter Destruction: Truman and the Use of Atomic Bombs against Japan* (Chapel Hill: University of North Carolina Press, 2004); Tsuyoshi Hasegawa, *Racing the Enemy: Stalin, Truman, and the Surrender of Japan* (Cambridge: Harvard University Press, 2005).

5. Wilson Miscamble, *From Roosevelt to Truman* (Cambridge: Harvard University Press, 2006).

6. Quoted in Gaddis, *The United States and the Origins of the Cold War*, 181.

7. On this generational tendency see Martin Amis, *Koba the Dread: Laughter and the Twenty Million* (New York: Vintage, 2003). A classic example of revisionism is David Horowitz, *The Free World Colossus*, rev. ed. (New York: Hill and Wang, 1970). Horowitz is now a vituperative neoconservative.

8. See, for example, Arnold Offner, *Another Such Victory: President Truman and the Cold War, 1945–53* (Stanford: Stanford University Press, 2003); Melvyn Leffler, *A Preponderance of Power* (Stanford: Stanford University Press, 1993).

9. Gregg Herken, *The Winning Weapon: The Atomic Bomb in the Cold War, 1945–1950* (New York: Knopf, 1991). An excellent study of the Baruch Plan which we have benefited from reading is Natasha Burley's Princeton University undergraduate thesis, located at Princeton's Mudd Library. Natasha Claire Burley, "The Baruch Plan and Atomic Energy Policy, 1945–47," B.A. thesis, Princeton, 2000.

10. Katherine Sibley, *Red Spies in America: Stolen Secrets and the Dawn of the Cold War* (Lawrence: University Press of Kansas, 2004); Amy Knight, *How the Cold War Began: The Gouzenko Affair and the Hunt for Soviet Spies* (Toronto: McKlellan and Stewart, 2005); Sam Roberts, *The Brother: The Untold Story of Atomic Spy David Greenglass and How He Sent His Sister, Ethel Rosenberg, to the Electric Chair* (New York: Random House, 2001); Allen Weinstein and Alexander Vassiliev, *The Haunted Wood: Soviet Espionage in America: The Stalin Era* (New York: Random House, 1999); John Earl Haynes and Harvey Klehr, *Venona: Decoding Soviet Espionage in America* (New Haven: Yale University Press, 1999); Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York: Simon and Schuster, 1995).

11. See Peter Novick, *That Noble Dream: The "Objectivity Question" and the American Historical Profession* (New York: Cambridge University Press, 1988), chapter 13.

12. David Holloway, *The Soviet Union and the Arms Race* (New Haven: Yale University Press, 1983), 28.

13. N. I. Kuznetsova, "Atomnyi Sled v VIET," *Voprosy Istorii i Estestvoznaniia Tekhniki* 4 (1997).

14. Vladimir Chikov, "Ot Los Alamosa do Moskvy," *Soiuz* 21–23 (May–June 1991); Vladimir Chikov, "Kak Sovetskaia Razvedka 'Rasshchepila' Amerikanskii Atom," *Novoe Vremia* 16–17 (1991). Chikov's later accounts acknowledge efforts of Soviet scientists. See Vladimir Chikov, "XX Vek. Uchebnik Istorii. Operatsiia 'Enormoz,'" *Novvaia Gazeta* 31 (August 23, 1999); Andrei Matiakh, "Prishlo Vremia Rasskazat. 'Enormoz'—Eto Grandiozno," *Krasnaia Zvezda* 139 (June 21, 1997).

15. See, for example, Vladimir Chikov, *Nelegaly: Dos'e KGB No. 13676* (Moscow: Olipm, 1997).

16. For an example of foreign publication see Vladimir Chikov and Gary Kern, *Comment Staline a vole la Bomb Atomique Aux Americains: Dossier KGB 13676* (Paris: R. Laffont, 1996).

17. Anatoli Sudoplatov and Pavel Sudoplatov, with Jerrold L. Schecter and Leona Schecter, *Special Tasks: The Memoirs of an Unwanted Witness, a Soviet Spymaster* (Boston: Little, Brown, 1995).

18. *Ibid.*, 172.

19. See, for example, Priscilla Johnson McMillan, “Flimsy Memories,” *Bulletin of the Atomic Scientists* 50, no. 4 (1994): 30; Sergei Leskov, “An Unreliable Witness,” *Bulletin of the Atomic Scientists* 50, no. 4 (1994): 33; Vladislav Zubok, “Atomic Espionage and Its Soviet ‘Witnesses,’” *Cold War International History Project Bulletin*, no. 4 (1994): 50.

20. Pavel Sudoplatov, *Spetsoperatsii. Lubiianka i Kreml, 1930–1950 gody* (Moscow: Olma-Press, 1997), 10.

21. John Earl Haynes and Harvey Klehr, *Venona: Decoding Soviet Espionage in America* (New Haven: Yale University Press, 1999).

22. Iulii Khariton and Iurii Smirnov, *Mify i Realnost Sovetskogo Atomnogo Proekta* (Arzamas-16: VNIIEF, 1994); Iulii Khariton and Iurii Smirnov, “Ukrali li Russkie Iadernuyu Bombu,” *Zerkalo Nedeli* 2 (January 14–20, 1995); Iulii Khariton, *J. Robert Oppenheimer Memorial Lecture* (Los Alamos, N.M.: J. Robert Oppenheimer Memorial Committee, 1996).

23. E. A. Negin, *Sovetskii Atomnyi Proekt. Konets Atomnoi Monopolii. Kak Eto Bylo* (Nizhny Novgorod: Izdatelstvo Nizhny Novgorod, 1995).

24. “Stalin’s Secret Order: Build the Bomb on a Russian Scale,” *Cold War International History Project Bulletin* 4 (1994): 5.

25. David Holloway, *Stalin and the Bomb: the Soviet Union and Atomic Energy, 1939–1956* (New Haven: Yale University Press, 1994).

26. Rhodes, *Dark Sun*.

27. Vladimir Gubarev, *Belyi arkhipelag Stalina: dokumental’noe povestvovanie o sozdanii iadernoi bomby, osnovannoe na rasskrebennykh materialakh “Atomnogo proekta SSSR”* (Moscow: Molodaia Gvardiia, 2004); A. B. Kozhevnikov, *Stalin’s Great Science: The Times and Adventures of Soviet Physicists* (London: Imperial College Press, 2004); G. A. Goncharov and L. D. Riabev, “O Sozdanii Pervoi Otechestvennoi Iadernoi Bomby,” *Uspekhi Fizicheskikh Nauk* 171, no. 1 (January 2001).

28. Vladislav Zubok, “Stalin and the Nuclear Age,” in John Lewis Gaddis et al., eds., *Cold War Statesmen Confront the Bomb* (New York: Oxford University Press, 1999).

29. *Ibid.*, 51.

30. Vladimir I. Batiuk, “Plan Barukha i SSSR,” in Ilia Gaiduk, ed., *Kholodnaia Voina: Nove Podbody, Nove Dokumenty* (Moscow: IVI RAN, 1995).

31. Viktor Malkov, *Mankhetskii Proekt: Razvedka i Diplomatiiia* (Moscow: Nauka, 1995).

32. Vladimir Pechatnov, *Stalin, Ruzvelt, Trumen: SSSR i SShA v 1940-kh gg.* (Moscow: Terra, 2006).

I. Franklin Delano Roosevelt and Atomic Wartime Diplomacy

1. Public opinion surveys about American foreign policy can be found in Hadley Cantril and Mildred Struck, eds., *Public Opinion, 1935–1946* (Princeton: Princeton University Press, 1951).

2. A strong overview of Roosevelt's strategy, and in particular his desire to learn from Wilson's failures, is John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941–1947* (New York: Columbia University Press, 1972), chapter 1.

3. Warren Kimball, *The Juggler: Franklin Roosevelt as Wartime Statesman* (Princeton: Princeton University Press, 1991), 45.

4. Akira Iriye, *The Cambridge History of American Foreign Relations*, vol. 3, *The Globalizing of America, 1913–1945* (New York: Cambridge University Press, 1993), 205.

5. Lloyd Gardner and Warren Kimball, "The United States: Democratic Diplomacy," in David Reynolds, Warren Kimball, and A. O. Chubarian, eds., *Allies at War: The Soviet, American, and British Experience, 1939–1945* (London: Macmillan, 1994), 405.

6. See Richard G. Hewlett and Oscar E. Anderson Jr., *A History of the United States Atomic Energy Commission*, vol. 1, *The New World, 1939/1946* (University Park: Pennsylvania State University Press, 1962), 16–17.

7. Based on a March 9, 1941, report by James Conant, chairman of the National Research Council, on the feasibility of bomb production, Roosevelt approved "large-scale design and construction"; *ibid.*, 71–72.

8. See *ibid.*, 81–83.

9. See Martin Sherwin, *A World Destroyed: The Atomic Bomb and the Grand Alliance* (New York: Knopf, 1975), 41–42. As Sherwin notes, Secretary of War Stimson was formally in charge of the new project but delegated responsibility to Bush and Conant. Stimson, as we will see, took a much greater interest in the issue in 1945.

10. *Ibid.*, 253.

11. See Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986), 512–17, for an account of this bombardment—and also of the ensuing operation, led by the Norwegian resistance fighter Knut Haukelid, to destroy the German ship transferring the last of its heavy water back to Germany in February 1944.

12. Though see James Hershberg, *James B. Conant* (New York: Knopf, 1993), 211.

13. Kimball notes that Roosevelt and Churchill could not have been aware yet of the Soviet victory, and hence did not act according to that assumption: see *The Juggler*, 69; though for a different view, see Gardner and Kimball, "The United States," 401.

14. Warren Kimball, *Forged in War* (New York: Harper, 1997), 166.

15. See Mark A. Stoler, *Allies in War: Britain and America Against the Axis Powers* (New York: Oxford University Press, 2005), 90–91. Stoler is excellent on the second-front dispute between the United States and Great Britain.

16. *Ibid.*, 156–59.

17. In the United States the project was generally referred to as S-1. See Hewlett and Anderson, *History*, 1: 259.

18. See Rhodes, *The Making of the Atomic Bomb*, chapters 1-2, on early atomic science and the central role played in it by scientists based in Britain.

19. "The British Lord President of the Council, British Embassy, Washington D.C., to the Director of the OSRD, August 4, 1943," A.E.C. Files, historical doc. no. 225, Franklin D. Roosevelt Library, hereafter FDRL; *Foreign Relations of the United States, The Conferences at Washington and Quebec, 1943* (Washington: United States Government Printing Office, 1970), hereafter *FRUS, Washington and Quebec, 1943*, 645.

20. See Hewlett and Anderson, *History*, 1: 261-63; Sherwin, *A World Destroyed*, 68-72.

21. After a cabinet meeting on October 29; see Hewlett and Anderson, *History*, 1: 263-64. Conant made a similar point on in an earlier memo to Bush, "The Acting Chairman of the Military Policy Committee, Washington, D.C., to the Director of the OSRD, March 25, 1943," FDRL, 4-5.

22. See Hewlett and Anderson, *History*, 1: 265-66; Hershberg, *James B. Conant*, 180-83; Septimus H. Paul, *Nuclear Rivals: Anglo-American Atomic Relations, 1941-52* (Columbus: Ohio State University Press, 2000), 36-37.

23. On the Anglo-Russian agreement see Hewlett and Anderson, *History*, 1: 267.

24. "Prime Minister, London, to President's Special Assistant, unnumbered telegram, February 16, 1943," FDRL and Hopkins Papers, *Foreign Relations of the United States, Diplomatic Papers, 1944*, vol. 2, *General: Economic and Social Matters* (Washington: United States Government Printing Office, 1967), hereafter *FRUS, Diplomatic Papers, 1944*, 1.

25. "Prime Minister, London, to President's Special Assistant, unnumbered telegram, February 24, 1943," FDRL and Hopkins Papers, *FRUS, Diplomatic Papers, 1944*, 1-2.

26. "The Director of the OSRD to the President's Special Assistant, memo, February 26, 1943," FDRL.

27. "Prime Minister, London, to President's Special Assistant, telegram, 1744Z, February 27, 1943," FDRL and Hopkins Papers, *FRUS, Diplomatic Papers, 1944*, 2-3.

28. *Ibid.*, 2. Three weeks after the Hyde Park discussions, "Roosevelt wrote in a note to Bush that he and the Prime Minister were 'in complete accord'"; Hewlett and Anderson, *History*, 1: 262. In his memoirs, Churchill claimed that he and Roosevelt had agreed to joint control in June 1942, during the prime minister's visit to Washington. See Winston Churchill, *The Hinge of Fate* (Boston: Houghton, 1950), 379-80.

29. "Prime Minister, London, to President's Special Assistant, telegram, 1807Z, February 27, 1943," FDRL and Hopkins Papers, *FRUS, Diplomatic Papers, 1944*, 3-5.

30. "Prime Minister, London, to President's Special Assistant, telegram, 1744Z, February 27, 1943," FDRL and Hopkins Papers, *FRUS, Diplomatic Papers, 1944*, 2-3.

31. "Prime Minister, London, to President's Special Assistant, telegram, March 20, 1943," Hopkins Papers, *FRUS, Diplomatic Papers, 1944*, 5.

32. “Acting Chairman of the Military Policy Committee, Washington, D.C., to the Director of the OSRD, March 25, 1943,” FDRL, 1.
33. See *ibid.*, 1–2. See also Hewlett and Anderson, *History*, 1: 265–66, 267–68, on the implications of the Anglo-Russian agreement for the exchange of new weapons of September 29, 1942.
34. Of the five main production processes, “the British had done significant work only on diffusion and the heavy-water pile,” but “the centrifuge, the electromagnetic method, and the graphite pile” were “all strictly American in origin and development”; see Hewlett and Anderson, *History*, 1: 265.
35. See *ibid.*, 1: 2–3, 259. The British policy paper quoted was a draft report of the Maud Technical Committee, June 23, 1941, and came into U.S. hands “through the courtesy of one member of the Committee unofficially”; *ibid.*, 2; Paul, *Nuclear Rivals*, 44–45.
36. Hershberg, *James B. Conant*, 186–87. Also see Hewlett and Anderson, *History*, 1: 264–65, and compare Sherwin, *A World Destroyed*, 74.
37. See “Acting Chairman of the Military Policy Committee, Washington, D.C., to the Director of the OSRD, March 25, 1943,” FDRL, 1, 5.
38. “The Director of the OSRD to the President’s Special Assistant, memo, March 31, 1943,” FDRL.
39. *Ibid.*, 3; *FRUS, Diplomatic Papers, 1944*, 7–8. See also Hewlett and Anderson, *History*, 1: 271.
40. “Memorandum of Conference with Mr. Harry Hopkins and Lord Cherwell at the White House, May 25, 1943, Memorandum by the Director of the OSRD,” FDRL and, under the title “Hopkins-Bush-Cherwell Meeting, May 25, 1943, 3:30 P.M., The White House, Memorandum by the Director of the OSRD, May 25, 1943,” Hopkins Papers, *Foreign Relations of the United States, The Conference at Quebec, 1944* (Washington: United States Government Printing Office, 1972), hereafter *FRUS, Quebec, 1944*, 209–11. See also Hewlett and Anderson, *History*, 1: 272–73.
41. “Memorandum . . . May 25, 1943,” FDRL, 2–3 and *FRUS, Quebec, 1944*, 210–11; see also Hewlett and Anderson, *History*, 1: 273.
42. “Prime Minister, London, to President’s Special Assistant, telegram, 0847Z, June 10, 1943,” FDRL and Hopkins Papers, *FRUS, Washington and Quebec, 1943*, 630.
43. “President’s Special Assistant, Washington, D.C., to the Prime Minister, unnumbered telegram, June 17, 1943,” Hopkins Papers, *FRUS, Quebec, 1944*, 630. See also Hewlett and Anderson, *History*, 1: 274.
44. “Memorandum by the Director of the OSRD, June 24, 1943,” A.E.C. Files, historical doc. no. 133, *FRUS, Washington and Quebec, 1943*, 631–32.
45. *Ibid.*; Hewlett and Anderson, *History*, 1: 274.
46. “Personal and Secret Message from Premier J. V. Stalin to the Prime Minister, Mr W. Churchill, June 24 1943,” *Stalin’s Correspondence with Churchill, Attlee, Roosevelt and Truman*, 2 vols. (London: Lawrence and Wishart, 1958), hereafter *Stalin’s Correspondence*, 1: doc. no. 165, p. 138.

47. See Hershberg, *James B. Conant*, 188–89.
48. “Prime Minister, London, to the U.S. President, telegram, 0910Z, July 9, 1943,” FDRL and Roosevelt Papers, *FRUS, Washington and Quebec, 1943*, 632; Hewlett and Anderson, *History, History* 274.
49. See Hewlett and Anderson, *History*, 1: 275.
50. “The President’s Special Assistant, Washington, D.C., to the U.S. President, July 20, 1943,” Roosevelt Papers, *FRUS, Washington and Quebec, 1943*, 633; Hewlett and Anderson, *History*, 1: 274.
51. “The U.S. President, Washington, D.C., to the Director of the OSRD, July 20, 1943,” A.E.C. Files, historical doc. no. 166, *FRUS, Washington and Quebec, 1943*, 633; Hewlett and Anderson, *History*, 1: 274; also see Paul, *Nuclear Rivals*, 48.
52. See “Memorandum of Meeting at 10 Downing Street on July 22, 1943,” Memo by the Secretary of War’s Special Assistant Bundy, lot 57D688, *FRUS, Washington and Quebec, 1943*, 634–36.
53. *Ibid.* See also Hewlett and Anderson, *History*, 1: 276–77; Sherwin, *A World Destroyed*, 87–88.
54. “U.S. President, Washington, D.C., to the Prime Minister, telegram, July 26, 1943,” Roosevelt Papers, *FRUS, Washington and Quebec, 1943*, 636.
55. “Acting Chairman of the Military Policy Committee, Washington, D.C., to the Director of the OSRD, July 30, 1943,” Lot 57D688, *FRUS, Washington and Quebec, 1943*, 639.
56. “Agreement Relating to Atomic Energy (British Document title: Articles of Agreement Governing Collaboration between the Authorities of the U.S.A. and the U.K. in the Matter of Tube Alloys), The Citadel, Quebec, August 19, 1943,” Department of the Army Files, *FRUS, Washington and Quebec, 1943*, 1117–18. See also Hewlett and Anderson, *History*, 1: 279.
57. Anderson, the British lord president of the council, made a similar proposal for a “joint nuclear energy commission” which would include other United Nations, especially the Soviet Union, as early as August 1942; in view of the Hyde Park agreement, John G. Winant, the British ambassador in Washington, argued that the parties should “also exchange such a pledge with Russia”; see Hewlett and Anderson, *History*, 1: 262, 268.
58. Sherwin, *A World Destroyed*, 100.
59. Memorandum of July 3, 1944; see Hewlett and Anderson, *History*, 1: 689, n. 10.
60. See *FRUS, Quebec, 1944*, 492, n. 1; Hewlett and Anderson, *History*, 1: 326. For a full account of Bohr’s efforts, see Sherwin, *A World Destroyed*, 91–112.
61. Rhodes, *Making of the Atomic Bomb*, 525–38.
62. “Aide-Mémoire of Conversation Between the President and the Prime Minister at Hyde Park, September 18, 1944, Aide-Mémoire Initialed by the U.S. President and Prime Minister, Hyde Park, September 19, 1944,” *FRUS, Quebec, 1944*, 492–93. See also Hewlett and Anderson, *History*, 1: 327.
63. Churchill sent Secretary of War Stimson a photocopy of the original on July 18, 1945. See Hewlett and Anderson, *History*, 1: 492, n. 2.

64. See Kimball, *Forged in War*, 215–16; Hewlett and Anderson, *History*, 1: 326–28.
65. See Hewlett and Anderson, *History*, 1: 328.
66. See *ibid.*, 1: 328–30. In this regard Bush and Conant wrote letters to Stimson on September 19 and September 30, 1944; see *ibid.*, 325–26, 329.
67. Sherwin, *A World Destroyed*, 89. Sherwin goes on to conclude (90) that Roosevelt agreed to this bilateral monopoly “as a hedge against the revival of isolationism in the United States.” As we have seen, the evidence suggests rather that Roosevelt’s motivations were more external, using the bomb in order to contend with British foot-dragging on the second front. It is not clear why Roosevelt would have believed that sharing the bomb with Great Britain would necessarily prevent a resurgence of isolationism; the contrary seems more logical.
68. Gardner and Kimball, “The United States,” 396.
69. Kimball, *Forged in War*, 216, 238–39.
70. See *ibid.*, 221, n. 50, and 279–80; Sherwin, *A World Destroyed*, 90. Sherwin states that the Soviet Union had attained knowledge of the atomic project “through espionage” but does not inquire into the effects of this development upon U.S. atomic policy.
71. Apart, perhaps, from Roosevelt’s vague announcement at a White House meeting after his September 1944 agreement with Churchill that he supported the idea of an Anglo-American monopoly. See Hershberg, *James B. Conant*, 204.
72. Kimball, *Forged in War*, 166–67.
73. “Personal and Secret for Marshall Stalin from President Roosevelt, received on February 11, 1944,” *Stalin’s Correspondence*, 2: doc. no. 159, p. 120.
74. “Most Secret and Personal Message from Mr Winston Churchill to Marshal Stalin, London, February 20, 1944,” received February 23, *Stalin’s Correspondence*, 1: doc. no. 243, pp. 201–4.
75. “Personal and Secret from Premier J. V. Stalin to the Prime Minister, Mr W. Churchill, March 23, 1944,” *Stalin’s Correspondence*, 1: doc. no. 257, pp. 212–13.
76. “Urgent and Most Secret Message from President Roosevelt and Mr Churchill to Marshal Stalin, August 20, 1944,” *Stalin’s Correspondence*, 1: doc. no. 322, p. 254, 2: doc. no. 220, p. 156.
77. “Personal and Secret Message for Marshal Stalin from President Roosevelt,” received September 9, 1944, *Stalin’s Correspondence*, 2: doc. no. 226, p. 159.
78. *Ibid.*, 159. Churchill later reversed his position; see Kimball, *Forged in War*, 286.
79. “Secret and Personal from Premier J. V. Stalin to the President, Mr. F. Roosevelt, September 14, 1944,” *Stalin’s Correspondence*, 2: doc. no. 227, p. 160, italics added.
80. On this point, see Gaddis, *The United States and the Origins of the Cold War*, 74.
81. Bush and Conant to Stimson, September 19, 1944; see Hewlett and Anderson, *History*, 1: 325–26, 689, n. 8.
82. See Hewlett and Anderson, *History*, 1: 326. See Bush to Conant, April 17, 1944, and a later memo by Conant, “Some Thoughts on International Control of Atomic Energy, May 4, 1944,” *ibid.*, 689, n. 9.

83. See Hewlett and Anderson, *History*, 1: 327–28; Hershberg, *James B. Conant*, 204–5; Sherwin, *A World Destroyed*, 122–25.

84. Bush “could not say what was uppermost on his mind,” and “spent an uncomfortable hour” holding his tongue during this meeting; see Hewlett and Anderson, *History*, 1: 328.

85. See *ibid.*, 1: 328–29.

86. Bush and Conant to Stimson, September 30, 1944; see Hewlett and Anderson, *History*, 1: 329, 690, n. 15.

87. See *ibid.*, 1: 329.

88. See *ibid.*, 1: 331–33.

89. See “Agreement Between the United States and the United Kingdom for the Establishment of the Combined Development Trust,” *FRUS, Diplomatic Papers, 1944*, lot file 55D540, box 2, 1026–27; “Memorandum of Agreement between the United States, the United Kingdom, and Belgium regarding the Control of Uranium, Enclosure to a letter from the Belgian Minister for Foreign Affairs, Spaak, to the American Ambassador in the UK, Winant,” *ibid.*, 1028–30, no dates stated.

90. “Personal and Secret Message from Premier J. V. Stalin to the President, Mr. F. Roosevelt, December 26, 1944,” in *Stalin’s Correspondence*, 2: doc. no. 253, pp. 178–79.

91. See Hewlett and Anderson, *History*, 1: 333–34.

92. *Ibid.*, 1: 334.

93. “Personal and Secret for Marshall Stalin from President Roosevelt,” received on December 31, 1944, in *Stalin’s Correspondence*, 2: doc. no. 255, pp. 182–83.

94. See Hewlett and Anderson, *History*, 1: 334–35.

95. “Personal and Secret from Premier J. V. Stalin to the president, Mr. F. Roosevelt, January 1, 1945,” in *Stalin’s Correspondence*, 2: doc. no. 256, pp. 183–84.

96. See Hewlett and Anderson, *History*, 1: 335.

97. Sherwin, *A World Destroyed*, 130.

98. See *ibid.*, 135–36.

99. On this point, see Hershberg, *James B. Conant*, 215.

100. See Hewlett and Anderson, *History*, 1: 338.

101. Kimball, *The Juggler*, 100.

102. See Sherwin, *A World Destroyed*, 88–89.

103. As Hershberg notes, a similar contradiction underlay the views of James Conant; Hershberg, *James B. Conant*, 218.

104. Kimball, *The Juggler*, 87.

2. The Great Game

1. L. E. Reshin, *1941 God* (Moscow: Mezhdunarodnyi Fond Demokrati’ia, 1998), 2: 581.

2. *Ibid.*, 2: 520.

3. Iosif Stalin, *Sochineniia* (Moscow: Gosudarstvennoe Izdatelstvo Politicheskoi Literatury, 1952), 7: 14.
4. Reshin, *1941 God*, 2: 584.
5. *Ibid.*, 2: 591.
6. Cited in Constantine Pleshakov, *Stalin's Folly: The Tragic First Ten Days of WWII on the Eastern Front* (New York: Houghton Mifflin, 2005), 76.
7. Reshin, *1941 God*, 2: 416.
8. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka-Fizmatlit, 1998), 1: book 1, pp. 75–76.
9. *Ibid.*, 1: book 1, pp. 33, 93, 25–27.
10. *Ibid.*, 1: book 1, p. 20.
11. *Ibid.*, 1: book 1, pp. 113, 121.
12. David Holloway, *Stalin and the Bomb: The Soviet Union and Atomic Energy, 1939–1956* (New Haven: Yale University Press, 1994), 54.
13. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 152; V. P. Vizgin, ed., *Istoriya Sovetskogo Atomnogo Proekta: Dokumenty, Vospominani'a, Issledovani'ia*, 2nd ed. (St. Petersburg: Izdatelstvo Russkogo Khristianskogo Gumanitarnogo Instituta, 2002), 16.
14. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, pp. 245–46; Holloway, *Stalin and the Bomb*, 76.
15. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 224.
16. *Ibid.*, 1: book 1, pp. 220, 228.
17. Robert Service, *A History of Twentieth-Century Russia* (Cambridge: Harvard University Press, 1998), 260–62; Pleshakov, *Stalin's Folly*, 9–11.
18. Iulii Khariton, *J. Robert Oppenheimer Memorial Lecture* (Los Alamos, N.M.: J. Robert Oppenheimer Memorial Committee, 1996), 2. Some years later Kurchatov regretted the waste of time: “All of this [the A-bomb] could have happened earlier if there were no absurd delay. After all, they could have demagnetized ships without us.” Cited in Iurii Smirnov, “I.V. Kurchatov i Vlast,” in Iurii Smirnov, *Igor Kurchatov v Vospominani'iakh i Dokumentakh*, 2nd ed. (Moscow: IzdAt, 2004).
19. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 223.
20. *Ibid.*, 1: book 1, pp. 240, 241.
21. Vilen Lyulenchik, “Tvorchestvo v nevole: obzor dokumentov o vklade uchenykh, konstruktorov, spetsialistov, nakhodivshikhsya v zakliuchenii, v pobedu v voine,” *Vestnik* 22 (October 23, 2001).
22. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, pp. 242–43.
23. Richard Overy, *Russia's War: A History of the Soviet War Effort, 1941–1945* (New York: Penguin, 1997), 95–98.
24. For the text of the March 1942 draft letter from Beria to Stalin see Fiodor Popov, *Atomnaia Bomba i KGB* (Minsk: Belarускаia Entsyklopedyia, 2003), 36–39. Kvasnikov's “connection” to this draft perhaps requires further investigation. We have relied on “Blestiashchii organizator, uchenyi razvedchik,” *Novosti Razvedki i Kontrrazvedki* 9–10 (May 26, 2005): 1–6.

25. Vladislav M. Zubok, “Stalin and the Nuclear Age,” in John Lewis Gaddis et al., eds., *Cold War Statesmen Confront the Bomb* (New York: Oxford University Press, 1999), 42.
26. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 267.
27. Vladimir Lota, ‘Kliuchi ot Ada,’ *Sovershenno Sekretno*, no. 8 (August 1999).
28. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, pp. 262–63, 265–66.
29. *Ibid.*, 1: book 1, p. 266.
30. On Kaftanov’s information about nuclear research in Germany see E. A. Negin et al., eds., *Sovetskii Atomnyi Proekt. Konets Atomnoi Monopolii: Kak Eto Bylo* (Nizhny Novgorod: Izdatelstvo Nizhnyi Novgorod, 1995), 59.
31. Iurii Smirnov, “Stalin i Atomnaya Bomba,” manuscript provided by Smirnov. A slightly different version is in Zubok, “Stalin and the Nuclear Age,” 42.
32. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, pp. 268–71.
33. “Perechen Rassekrechennykh Dokumentov Gosudarstvennogo Komiteta Oborony SSSR (1941–1945),” bulletin no. 6 (Moscow: Rosarkhiv, 2005).
34. For a detailed review of evidence regarding Kurchatov’s appointment see Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York: Simon and Schuster, 1995), 63–65.
35. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 280.
36. I. N. Golovin, and Iurii Smirnov, “Eto nachinalos’ v Zamoskvorechie,” in *Nauka i uchenye Rossii v gody Velikoi Otechestvennoi voiny. 1941–1945*. (Moscow: Nauka, 1996), 2–8, 209.
37. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 284.
38. *Ibid.*, 1: book 1, p. 285.
39. *Ibid.*, 1: book 1, p. 275.
40. G. A. Goncharov and L. D. Riabev, “O Sozdanii Pervoi Otechestvennoi Atomnoi Bomby,” *Uspekhi Fizicheskikh Nauk* 171, no. 1 (2001): 93.
41. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, p. 409.
42. Goncharov and Riabev, “O Sozdanii Pervoi Otechestvennoi Atomnoi Bomby,” 91.
43. *Ibid.*
44. *Ibid.*, 93.
45. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, pp. 278–79.
46. *Ibid.*, 1: book 1, pp. 314–20. For an in-depth analysis of Kurchatov’s reports on intelligence materials in March 1943 see Rhodes, *Dark Sun*, 71–77.
47. Riabev et al., *Atomnyi Proekt SSSR*, 1: book 1, pp. 326–27.
48. *Ibid.*, 1: book 1, p. 369.
49. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka-Fizmatlit-VNIIEF, 2000), 2: book 3, p. 307.
50. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka-Fizmatlit, 1999, 2: book 1, p. 614.
51. “Dnevnik narkoma: ‘proidet desiatok let, i eti vstrechi ne vosstanovish uzhe v

pamiati,” *Istobnik* 5 (1997): 127–28. Translation provided by the Cold War International History Project.

52. Cited in John Lewis Gaddis, *The United States and the Origins of the Cold War* (New York: Columbia University Press, 2000), 234.

53. See *Foreign Relations of the United States, The Conference of Berlin, 1945* (Washington D.C.: United States Government Printing Office, 1960), 1: 61.

54. “Anglichane i Amerikantsy khotiat vezde sozdat reaktionnye pravitelstva,” *Istobnik* 4 (1995): 152–58. Trans. Vlad Zubok, provided by the Cold War International History Project.

55. Tatiana V. Volokitina et al., eds., *Vostochnaia Evropa v Dokumentakh Rossiiskikh Arkhivov, 1944–1953* (Moscow: Sibirskii Khronograf, 1997), 1: 118–33. Trans. Svetlana Savranskaia, provided by the Cold War International History Project.

56. Milovan Djilas, *Conversations with Stalin* (London: Hart-Davis, 1962), 74.

57. Vladimir Chikov, *Russkie Nelegaly v S.Sh.A.* (Moscow: Eksmo, Algoritm Kniga, 2002), 135. According to Chikov, Leonid Kvasnikov passed a memorandum with intelligence to this effect to Pavel Fitin. We cite this as indirect evidence because Chikov’s writing is generally unreliable, despite his access to the intelligence archives (see the historiography section). In this particular case his claim appears credible.

58. Bulgarian Central State Archive (CDA), f. 147 B, op. 2, ae. 1025, ll. 1–6. Obtained by Jordan Baev and trans. Nedialka Douptcheva. A copy of this document was provided to the authors by the Cold War International History Project.

59. “Anglichane i Amerikantsy khotiat.”

3. Truman, the Bomb, and the End of World War II

1. See Warren Kimball, *Forged in War* (New York: Harper, 1997), 15–18.

2. On Truman’s remarkable inexperience, see Wilson Miscamble, *From Roosevelt to Truman* (Cambridge: Harvard University Press, 2006), 125.

3. Quoted in Alonzo Hamby, *Man of the People: A Life of Harry S. Truman* (New York: Oxford University Press, 1995), 293.

4. This story is related by Robert G. Nixon, interview for the Oral History Interviews, Harry S. Truman Library, hereafter HSTL, no. 265, box 41, 327. “You don’t get to see Kings every day,” Truman said, “especially if you are a farm boy from Missouri.”

5. “State department memorandum of conversation, April 20, 1945,” President’s Secretary’s Files, HSTL, box 163, Russia file, 3.

6. As Miscamble notes, however, this quotation comes only from Truman’s memoirs and was not recorded in the minutes. See Miscamble, *From Roosevelt to Truman*, 120.

7. On the long-standing and widespread antipathy to the USSR in the State Department, see Mary F. Glantz, *FDR and the Soviet Union* (Lawrence: University of Kansas Press, 2003). Also HSTL, D 23 April.

8. On this point, see Miscamble, *From Roosevelt to Truman*, 165.

9. Quoted in John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941–47* (New York: Columbia University Press, 1972), 243.

10. On this point also see Robert Messer, *End of An Alliance: James F. Byrnes, Roosevelt, Truman, and the Origins of the Cold War* (Chapel Hill: University of North Carolina Press, 1982), 82.

11. Harry S. Truman, *Memoirs by Harry S. Truman*, vol. 1, *Year of Decisions, 1945* (Garden City: Doubleday, 1955), 87. Truman's memoirs are notoriously unreliable, but Byrnes's comment on the thirteenth is consistent with his later views.

12. See Tsuyoshi Hasegawa, *Racing the Enemy: Stalin, Truman, and the Surrender of Japan* (Cambridge: Harvard University Press, 2005), 66–67. See also Truman, *Memoirs*, 1: 10–11.

13. It is difficult to overstate Truman's removal from the making of foreign policy before he became president: a simple indication of this is the fact that he met with Roosevelt only one time between FDR's fourth inauguration on January 20, 1945, and his death in April. This is mentioned by George Elsey, HSTL, folder 398. See also Henry L. Stimson, "The Decision to Use the Atomic Bomb," *Harper's*, February 1947, 97–107. See also Truman, *Memoirs*, 1: 419.

14. See Truman, *Memoirs*, 1: 415, 417.

15. McGeorge Bundy, *Danger and Survival* (New York: Random House, 1988), 187.

16. See J. Samuel Walker, *Prompt and Utter Destruction*, rev. ed. (Chapel Hill: University of North Carolina Press, 2004), 37; James Forrestal's account of the top secret State-War-Navy meeting, June 19, 1945, in Walter Millis, ed., *The Forrestal Diaries* (New York: Viking, 1951), 69–70. See also Truman, *Memoirs*, 1: 416–17.

17. See Truman, *Memoirs*, 1: 428.

18. See Hasegawa, *Racing the Enemy*, 70.

19. See "Memorandum of Conversation with President Truman and Judge Samuel Rosenman by Acting Secretary of State Joseph C. Grew, May 28, 1945," in Kai Bird and Lawrence Lifschultz, eds., *Hiroshima's Shadow*, (Stony Creek: Pamphleteer's Press, 1998) 505–7.

20. See Richard G. Hewlett and Oscar E. Anderson Jr., *A History of the United States Atomic Energy Commission*, vol. 1, *The New World, 1939/1946* (University Park: Pennsylvania State University Press, 1962), 370–71.

21. See Walker, *Prompt and Utter Destruction*, 38.

22. William Leahy diary account of June 18, 1945, meeting, reprinted in Bird and Lifschultz, *Hiroshima's Shadow*, 515. See also "Minutes of Meeting Held at White House On Monday, 18 June 1945 at 15h30," in Dennis Merrill, gen. ed., *Documentary History of the Truman Presidency*, vol. 1, *The Decision to Drop the Atomic Bomb on Japan* (Bethesda, Md.: University Publications of America, 1995), document 8, pp. 49–57. See also Truman, *Memoirs*, 1: 416.

23. See Hasegawa, *Racing the Enemy*, 110–15, for a thorough treatment of this statement.

24. A full, official account of the May 31–June 1 interim committee meetings can be found in Hewlett and Anderson, *History*, 1: 356–61. See also “Notes of the Interim Committee meeting, 31 May 1945,” R. Gordon Arneson Papers, subject file, box 1, HSTL.
25. See Merrill, *Documentary History of the Truman Presidency*, 1: document 6, p. 23.
26. See Hewlett and Anderson, *History*, 1: 357–58.
27. See “Notes of the Interim Committee Meeting, Friday, 1 June 1945,” in Merrill, *Documentary History of the Truman Presidency*, 1: document 7, pp. 39–48.
28. See Truman, *Memoirs*, 1: 417.
29. “21 June 1945 Minutes of Interim Committee Meeting,” Arneson Papers, box 1, HSTL.
30. On this point, also see Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986), 206.
31. Hewlett and Anderson, *History*, 1: 363–64.
32. *Ibid.*, 1: 364.
33. For example, see Bundy, *Danger and Survival*, 74–75.
34. See Truman, *Memoirs*, 1: 76–82.
35. See *ibid.*, 1: 229–34; Hewlett and Anderson, *History*, 1: 351–52.
36. See Hewlett and Anderson, *History*, 1: 350.
37. See Hasegawa, *Racing the Enemy*, 158. Also see Walker, *Prompt and Utter Destruction*, 64.
38. See Walker, *Prompt and Utter Destruction*, 55.
39. “War Department Summary of ‘Magic’ Decryption of Japanese Cables, 13 July 1945,” reprinted in Bird and Lifschultz, *Hiroshima’s Shadow*, 523–25.
40. See Truman, *Memoirs*, 1: 331.
41. On this decision, see Hasegawa, *Racing the Enemy*, 130.
42. A fine account of the Trinity test is in Rhodes, *Making of the Atomic Bomb*, 656–78.
43. Harrison telegraph to Stimson, “The Acting Chairman of the Interim Committee to the Secretary of War, 16 July 1945,” Department of the Army files, doc. no. 1303, in *Foreign Relations of the United States, Diplomatic Papers, 1945*, vol. 2, *General: Political and Economic Matters* (Washington: United States Government Printing Office, 1967), hereafter *FRUS, Diplomatic Papers, 1945*, 2: 1360.
44. See Robert L. Messer, “New Evidence on Truman’s Decision,” in Bird and Lifschultz, *Hiroshima’s Shadow*, 95–97.
45. See Hasegawa, *Racing the Enemy*, 139–40.
46. See Hamby, *Man of the People*, 329.
47. Harrison to Stimson, “The Acting Chairman of the Interim Committee to the Secretary of War, 19 July 1945,” Department of the Army files, doc. no. 1304, *FRUS, Diplomatic Papers, 1945*, 2: 1361.
48. Groves to Stimson, “The Commanding General, Manhattan District Project to

the Secretary of War, Washington, 18 July, 1945,” Department of the Army Files, doc. no. 1305, *FRUS, Diplomatic Papers, 1945*, 2: 1361–70. According to Stimson’s diary he did not receive the message until July the 21; see *ibid.*, 2: 1361, n. 1.

49. See Stimson’s diary entry “Stimson-Churchill Conversation, Sunday, July 22, 1945, 10:40 am,” in *Foreign Relations of the United States, Diplomatic Papers, 1945*, vol. 1, *General: The United Nations* (Washington: United States Government Printing Office, 1967), hereafter *FRUS, Diplomatic Papers, 1945*, 1: 225; and Henry L. Stimson papers, Yale University, Sterling Library, 22–24 July 1945 diary entries. Truman is quoted in Walker, *Prompt and Utter Destruction*, 60.

50. Much of the Potsdam conference, it must be recalled, dealt with issues unrelated to the atomic bomb. Most notable of these was the question of the postwar occupation and borders of Germany. On this point, see Miscamble, *From Roosevelt to Truman*, 191.

51. See Truman, *Memoirs*, 1: 416; See also “Truman-Stalin Conversation, Tuesday, July 24, 1945, 7:30 PM,” in *FRUS, Diplomatic Papers, 1945*, 1: 378–79.

52. Hasegawa, *Racing the Enemy*, 153.

53. See Hewlett and Anderson, *History*, 1: 392–93.

54. Hasegawa, *Racing the Enemy*, 156–58; Walker, *Prompt and Utter Destruction*, 65–66; Hewlett and Anderson, *History*, 1: 395–96.

55. Hasegawa, *Racing the Enemy*, 155–60.

56. See Walker, *Prompt and Utter Destruction*, 131.

57. Gar Alperovitz, *Atomic Diplomacy from Hiroshima to Potsdam* (New York: Simon and Schuster, 1965).

58. Walker, *Prompt and Utter Destruction*, is particularly good on this point; see 60–61.

59. On this point see Barton Bernstein, “Correspondence,” *International Security* 16 (Winter 1991–92): 220. This short reply to criticism from Robert Messer and Gar Alperovitz is in our judgment Bernstein’s best discussion of the atomic bomb debate.

60. Hasegawa’s treatment of the struggle in Japan about surrender after the Potsdam Declaration must now be regarded as the standard account. See Hasegawa, *Racing the Enemy*, 165–74. On Truman’s awareness of the divisions within the Japanese government, see Bernstein, “Correspondence,” 217.

61. Robert Messer, “New Evidence on Truman’s Decision,” 95.

62. *Ibid.*, 96.

63. See Bernstein, “Correspondence,” 220.

64. See Rhodes, *Making of the Atomic Bomb*, 651.

65. See Hasegawa, *Racing the Enemy*, 202. In his memoirs Truman stated: “In deciding to use this bomb I wanted to make sure that it would be used as a weapon of war in the manner prescribed by the laws of war. That meant that I wanted it dropped on a military target. I had told Stimson that the bomb should be dropped as nearly as possibly upon a war production center of prime military importance”; Truman, *Memoirs*, 1: 420. Walker, who is on balance sympathetic to Truman’s decision making,

echoes Barton Bernstein's claim that such a claim can only be attributed to "self-deception." Walker, *Prompt and Utter Destruction*, 62.

66. Stimson's "Memorandum of Conference with the President, August 8, 1945 at 10:45 AM," reprinted on the National Security Archive Web site, <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB162/58.pdf>.

67. Messer, "New Evidence on Truman's Decision," 97.

4. Responding to Hiroshima and Nagasaki

1. Tatiana V. Volokitina et al., eds., *Vostochnaia Evropa v Dokumentakh Rossiiskikh Arkhivov: 1944–1953* (Moscow: Sibirskii Khronograf, 1997), 1: 118–33. Trans. Svetlana Savranskaia, provided by the Cold War International History Project.

2. Cited in Vladimir Pechatnov, *Stalin, Ruzvelt, Truman: SSSR i SShA v Nachale 1940-kh godov* (Moscow: Terra Knizhnyi Klub, 2006), 702.

3. Cited *ibid.*, 328.

4. Cited in William Averell Harriman and Elie Abel, *Special Envoy to Churchill and Stalin, 1941–1946* (New York: Random House, 1975), 465.

5. Pechatnov, *Stalin, Ruzvelt, Truman*, 339.

6. Cited in David Holloway, *Stalin and the Bomb: The Soviet Union and Atomic Energy, 1939–1956* (New Haven: Yale University Press, 1994), 126–27.

7. Vladislav M. Zubok, "Stalin and the Nuclear Age," in John Lewis Gaddis et al., eds., *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy Since 1945* (Oxford: Oxford University Press, 1999), 44.

8. Cited in Holloway, *Stalin and the Bomb*, 117.

9. Tsuyoshi Hasegawa, *Racing the Enemy: Stalin, Truman, and the Surrender of Japan* (Cambridge: Harvard University Press, 2005), 44, 155.

10. David Holloway, "Jockeying for Position in the Postwar World: Soviet Entry into the War with Japan in August 1945," in Tsuyoshi Hasegawa, ed., *The End of the Pacific War: Reappraisals* (Stanford: Stanford University Press, 2007), 170.

11. Cited in Holloway, *Stalin and the Bomb*, 132. The remark was supposedly made to one of the administrators of the atomic project, Boris Vannikov, and the project's scientific director, Igor Kurchatov. A recently declassified diary of Stalin's visitors in the Kremlin indicates that the first time he met Kurchatov there was probably January 1946, though this evidence does not by itself mean that Stalin said nothing of this sort.

12. Quoted in Hasegawa, *Racing the Enemy*, 192.

13. See *ibid.*, 178. Also Holloway, "Jockeying for Position," 175.

14. "Genbaku tyousa. Syuusen yokujitsu ni Soren syoukou ga Hiroshima iri . . . Amerika yori hayaku," *Yomiuri Shimbun*, July 24, 2005. Mikhail Ivanov recalls his visit to Hiroshima in a memoir, Mikhail Ivanov, *Iaponiia v Gody Voiny: Zapiski Ochevidtsa* (Moscow: Nauka, 1978), 228–34. Ivanov gives different dates for his visit to Hiroshima and Nagasaki in this memoir, and he does not mention that he was on a GRU mission.

15. Nikita Moiseyev, "The Hiroshima and Nagasaki Tragedy in Documents," *International Affairs* 8 (1990): 122–38.

16. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka-Fizmatlit, 1999), 2: book 1, pp. 49–50.
17. Andrzej Werblan, “The Conversation Between Władisław Gomułka and Joseph Stalin on 14 November 1945,” *Cold War International History Project Bulletin* 11 (Winter 1998): 136.
18. Volokitina et al., *Vostochnaia Evropa v Dokumentakh Rossiiskikh Arkhivov*, 456–57, and 461.
19. Andrzej Werblan, “The Conversation Between Władisław Gomułka and Joseph Stalin on 14 November 1945,” 136.
20. *Vneshniaia Politika Sovetskogo Soiuza: Dokumenty i Materialy, 1946* (Moscow: Gosudarstvennoe Izdatelstvo Politicheskoi Literatury, 1952), 70.
21. Cited in Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York: Simon and Schuster, 1995), 176.
22. Vladimir O. Pechatnov, “‘The Allies Are Pressing on You to Break Your Will . . .,’ Foreign Policy Correspondence Between Stalin and Molotov and Other Politburo Members. September 1945–December 1946,” trans. Vladislav M. Zubok, *Cold War International History Project Working Paper* 26 (1999): 6.
23. *Ibid.*, 14; O. V. Khlevniuk et al., eds., *Politbiuro TsK VKP(b) i Sovet Ministrov SSSR, 1945–1953* (Moscow: Rossiiskaia politicheskaia entsiklopediia, 2002), 202.
24. Cited in Barton J. Bernstein, “Roosevelt, Truman, and the Atomic Bomb, 1941–1945: A Reinterpretation” *Political Science Quarterly* 90, no. 1 (1975): 64.
25. “The President’s News Conference Following the Signing of a Joint Declaration on Atomic Energy,” November 15, 1945, *Public Papers of Harry S. Truman, 1945–1953* (Washington, D.C.: United States Government Printing Office, 1961), 474–75.
26. Viktor Malkov, *Mankhetskii Proekt: Razvedka i Diplomatia* (Moscow: Nauka, 1995), 162.
27. Vladislav Zubok and Constantine Pleshakov, *Inside the Kremlin’s Cold War: From Stalin to Khrushchev* (Cambridge: Harvard University Press, 1996), 30.
28. Cited in Geoffrey Roberts, “Litvinov’s Lost Peace, 1941–1946,” *Journal of Cold War Studies* 4, no. 2 (2002): 43.
29. Malkov, *Mankhetskii Proekt*, 164–65. Zubok, “Stalin and the Nuclear Age,” 50.
30. Cited in Scott Parish, “A Diplomat Reports,” *Cold War International History Project Bulletin* 1 (Spring 1992): 21.
31. Malkov, *Mankhetskii Proekt*, 163; “Anglo-Amerikanskaia Atomnaia Politika,” Report by the Soviet Embassy in London, November 24, 1945, Arkhiv Vneshnei Politiki Rossiiskoi Federatsii, hereafter AVPRF, fond 06, opis 8, papka 7, delo 90, listy 18–19.
32. *Pravda*, November 8, 1945.
33. Malkov, *Mankhetskii Proekt*, 165.
34. Riabev et al., *Atomnyi Proekt SSSR*, 2: book 1, p. 612.
35. *Ibid.*, 2: book 1, pp. 41, 613, 622.

36. G. A. Goncharov and L. D. Riabev, “O Sozdanii Pervoi Otechestvennoi Atomnoi Bomby,” *Uspekhi Fizicheskikh Nauk* 171, no. 1 (2001): 95.
37. Holloway, *Stalin and the Bomb*, 138.
38. Iulii Khariton and Iurii Smirnov, *Mify i Realnost Sovetskogo Atomnogo Proekta* (Arzamas-16: VNIIEF, 1994), 13.
39. Khlevniuk et al., *Politbiuro TsK VKP(b) i Sovet Ministrov SSSR*, 201–2.
40. *Foreign Relations of the United States, Diplomatic Papers, 1945*, vol. 2, *General: Political and Economic Matters* (Washington: United States Government Printing Office, 1967), 600, 612–13, 698.
41. For relations between Stalin and Molotov see Pechatnov, “‘The Allies Are Pressing on You.’”
42. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka and VNIIEF, 1999), 2: book 2, p. 81.
43. N. D. Bondarev, A. A. Keda, and A. A. Selezneva, “U istokov sovetskogo atomnogo proekta: novye arkhivnye materialy. Osobaia papka iz arkhiva I. V. Kurchatova,” *Voprosy Istorii Estestvoznaniia i Tekhniki* 2 (1994): 123–24. This document is available in an English translation in *Cold War International History Project Bulletin* 4 (Fall 1994): 5, but note the translation error as compared with the present text.
44. Riabev et al., *Atomnyi Proekt SSSR*, 2: book 2, p. 557.
45. *Ibid.*, 2: book 1, pp. 99, 102.
46. *Ibid.*, 2: book 1, p. 24.
47. *Ibid.*, 2: book 2, p. 53.
48. Vladimir Gubarev, *Belyi Arkhipelag Stalina* (Moscow: Molodaia Gvardiia, 2004).
49. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka and VNIIEF, 2002), 2: book 3, p. 124.
50. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka, 1998), 1: book 1, p. 201.
51. Robert Service, *History of Twentieth-Century Russia* (Cambridge: Harvard University Press, 1998), 280.
52. Riabev et al., *Atomnyi Proekt SSSR*, 2: book 1, p. 176.
53. *Ibid.*, 2: book 3, p. 485. Beria’s emphasis.
54. *Ibid.* 2: book 2, p. 238. For a detailed account of the Soviet use of German scientists in the atomic project see Norman Naimark, *The Russians in Germany: A History of the Soviet Zone of Occupation, 1945–1949* (Cambridge: Harvard University Press, 1995), especially chapter 4.
55. See Holloway, *Stalin and the Bomb*, 220, for U.S. intelligence community estimates; see volumes of the *Atomnyi Proekt SSSR* for factual information mentioned above.

5. The Baruch Plan and the Onset of American Cold War

1. Cited in Alonzo Hamby, *Man of the People: A Life of Harry S. Truman* (New York: Oxford University Press, 1995), 316.

2. Quoted in Wilson Miscamble, *From Roosevelt to Truman* (New York: Cambridge University Press, 2006), 259.

3. On Truman's desire to focus his attention on domestic matters after the war, see Hamby, *Man of the People*, 361–64.

4. "September 11, 1945 Memorandum for the President," Henry L. Stimson papers, Sterling Library, Yale University, roll 113.

5. There are many accounts of this meeting and the thinking of Stimson after the war: for a sampling, see Henry L. Stimson and McGeorge Bundy, *On Active Service in Peace and War* (New York: Harper, 1948), chapter 24; Gregg Herken, *The Winning Weapon: The Atomic Bomb in the Cold War, 1945–1950* (New York: Knopf, 1991), 23–31; and Richard G. Hewlett and Oscar E. Anderson Jr., *A History of the United States Atomic Energy Commission*, vol. 1, *The New World, 1939/1946* (University Park: Pennsylvania State University Press, 1962), 419–25.

6. See Miscamble, *From Roosevelt to Truman*, 262–71, for a recent account of Truman foreign policy during the last months of 1945.

7. State Department record of conversation between Harriman and Stalin, August 8, 1945, obtained from the National Security Archive, <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB162/57.pdf>. Also attending this meeting were Molotov and Harriman's counselor, George Kennan.

8. For a popular but thorough history of this affair, see Amy Knight, *How the Cold War Began: The Gouzenko Affair and the Hunt for Soviet Spies* (Toronto: McClellan and Stewart, 2005), especially chapters 2–3. As the title suggests, Knight states that the spy scandal not only doomed international control but also was responsible for the outbreak of the Cold War, but she does not substantiate these claims by demonstrating the scandal's effect on Truman's foreign policy.

9. Hoover letters to Connelly, September 12, 18, 24, and 27, 1945, president's secretary's files, subject file: FBI, box 146, Harry S. Truman Library, hereafter HSTL. The quotation is from the September 24 letter.

10. See Knight, *How the Cold War Began*, chapter 4.

11. On this episode, also see *ibid.*, 1–4. Hoover had been trying to warn Washington about spying on the atomic project since 1943 but had been largely tuned out by the White House before the end of the war. We are grateful to Katie Sibley for pointing this out.

12. Gregg Herken argues that "Russian spying was not and never had been a serious concern in the Truman administration," because spying could not help the Soviet Union obtain the materials and facilities necessary to build a bomb. In stressing this point, Herken overlooks the political effects of espionage described here, not only upon Truman himself but upon the chances of international control. See *The Winning Weapon*, 116, 125.

13. For a similar deductive analysis of later American nuclear policy, see Campbell Craig, *Destroying the Village: Eisenhower and Thermonuclear War* (New York: Columbia University Press, 1998).

14. On the speech to Congress, see Hewlett and Anderson, *History*, 1: 421–29.
15. *Ibid.*, 1: 456–57.
16. “November 16, 1945 Truman Announcement,” Matthew Connolly papers, HSTL, box 1.
17. “November 29, 1945 Byrnes Memorandum,” *Foreign Relations of the United States, 1945*, vol. 2, *General: Political and Economic Matters* (Washington, D.C.: United States Government Printing Office, 1967), 590; “December 6, 1945 Telegram from Byrnes to the US Embassy in London,” *ibid.*, 596.
18. “December 15, 1945 Acheson Telegram to Byrnes,” *ibid.*, 609–10.
19. “December 24, 1945 Byrnes Telegram to Truman,” president’s secretary’s files, HSTL, box 164.
20. In another example of the murkiness of early administration policy with respect to the atomic bomb, Truman later claimed that Byrnes had sought to pursue wide-ranging agreements with the Soviet Union, and in general make U.S. foreign policy, without consulting him. This led to some kind of confrontation at the end of the year, in which Truman falsely claimed to have upbraided his secretary of state for his excessive trust of the USSR and announced that it was time to stop “babying” the Russians. For an account, see Miscamble, *From Roosevelt to Truman*, 273–76.
21. The Acheson-Lilienthal plan was published in full as Department of State publication 2498, U.S. Government Printing office, 1946. Its primary author was probably J. Robert Oppenheimer, head of the Manhattan Project scientific branch.
22. See Harry S. Truman, *Memoirs by Harry S. Truman*, vol. 2, *Years of Trial and Hope, 1946–1952* (Garden City, N.Y.: Doubleday, 1956), 6.
23. January 23, 1946, Joint Chiefs of Staff memorandum of report prepared by Joint Strategic Survey Committee, *Foreign Relations of the United States, 1946* (Washington, D.C.: United States Government Printing Office, 1967), 2: 744.
24. Department of State Publication 2498, *ibid.*, iii.
25. See Knight, *How the Cold War Began*, 104–8; also see Katherine A. S. Sibley, *Red Spies in America: Stolen Secrets and the Dawn of the Cold War* (Lawrence: University of Kansas Press, 2004), 169; Ellen Schrecker, *Many Are the Crimes: McCarthyism in America* (Princeton: Princeton University Press, 1998), 170.
26. Herken, *The Winning Weapon*, 130–31; Hewlett and Anderson, *History*, 1: 480–81. Hewlett and Anderson write that the espionage revelations led Truman to abandon the Hyde Park agreement.
27. Responding to criticism from the Soviet minister Andrei Gromyko, Baruch told reporters, “As to his attempts to insult me, that’s been tried before. The last who did so were Hitler and Mussolini.” This seems to suggest that Baruch regarded the Second World War as a campaign to avenge his honor. October 30, 1946, statement to press, Baruch folder, box 58, Bernard M. Baruch Papers, Mudd Library, Princeton University, hereafter BMB. The appointment occurred on March 16, the day before the formal release of the Acheson-Lilienthal report; see Hewlett and Anderson, *History*, 1: 555.

28. March 19, 1946, telegram from Vandenberg to Baruch, “US Policy Toward the June 14 Proposal” folder, box 52, BMB; March 21, 1946, reply from Baruch to Vandenberg, *ibid.*; April 19, 1946, memorandum of conversation between Byrnes and Baruch, *ibid.*

29. See “Notes on Conference at Blair-Lee House, May 17,” *ibid.*; Board of Consultants May 19, 1946, letter to Baruch, *FRUS, 1946*, 2: 790–95; State Department Atomic Energy Commission Policy folder, 1946–48, Conference at Blair-Lee House, record group 59, records of the special assistant to the secretary of state for atomic energy matters, 1944–52, box 65, National Archives, College Park, Maryland.

30. May 29 letter from Hoover to Allen, president’s secretary’s files, HSTL, FBI subject file, box 146.

31. June 1, 1946, memorandum of Baruch discussion with Byrnes, “US policy Toward the June 14 Proposal,” folder, BMB; June 7, 1946, memorandum from Truman to Baruch, *FRUS, 1946*, 2: 846–51.

32. See David Holloway, *Stalin and the Bomb* (New Haven: Yale University Press, 1994), 161–63.

33. See notes of a staff conference of the U.S. delegation to the UNAEC, August 1, 1946, *FRUS, 1946*, 2: 870; Baruch draft of progress report, August 14, 1946, Acheson folder, box 58, BMB.

34. September 14, 1946, Lindsay memorandum for Baruch, *FRUS, 1946*, 2: 916; September 17 Baruch memorandum for Truman, *ibid.*, 2: 925.

35. For this conventional argument, see McGeorge Bundy, *Danger and Survival* (New York: Random House, 1988), chapter 4; John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941–47* (New York: Columbia University Press, 1972), chapter 8; Hewlett and Anderson, *History*, 1: chapter 16.

36. Herken, *The Winning Weapon*, 184.

37. *Ibid.*, chapter 9.

38. Baruch was almost certainly alluding to espionage in a letter to Stimson before his June 14 speech, telling him that after the Washington conference of the previous November “there is only one thing left to do and that is what we are doing now.” June 3, 1946, letter from Baruch to Stimson, Henry L. Stimson papers, Sterling Library, Yale University. We did not find this letter in the Baruch Papers.

39. The original expression of this argument, though having to do primarily with the bombardment of Hiroshima and Nagasaki, is in Gar Alperovitz, *Atomic Diplomacy: The Use of the Atomic Bomb and the American Confrontation with Soviet Power* (New York: Vintage, 1965). Also see Alperovitz’s *The Decision to Use the Atomic Bomb* (London: Harper, 1995).

40. See Arnold A. Offner, *Another Such Victory: President Truman and the Cold War, 1945–53* (Stanford: Stanford University Press, 2003), 257–60, for a good account of the use of the B-29s. This story awaits a full treatment.

41. On the lack of U.S. interest in destroying the Soviet atomic project, see John Lewis Gaddis, *The Long Peace: Inquiries into the History of the Cold War* (New York:

Oxford University Press, 1987), 104–15. The United States did conduct an atomic test at the Bikini Island test site in July, but this hardly qualifies as the kind of serious atomic diplomacy at issue here.

42. This is the central conclusion made by the Princeton University student Natasha Claire Burley in “The Baruch Plan and Atomic Energy Policy, 1945–47,” B.A. thesis, April 2000. In our view, Burley’s thesis is to date the best analysis of the politics of the Baruch Plan.

43. For a contrary view, see Herken, *The Winning Weapon*, chapters 5–6, especially 137.

44. A good summary of the Marshall Plan is in Warren I. Cohen, *America in the Age of Soviet Power, 1945–1991*, vol. 4 of *The Cambridge History of American Foreign Relations*, ed. Warren I. Cohen (Cambridge: Cambridge University Press, 1995), 41–45. The standard full account is Michael Hogan, *The Marshall Plan* (New York: Cambridge University Press, 1987). According to all accounts we have seen, the mastermind of the tactic to invite Eastern Europe was George Kennan: see Walter Hixson, *George F. Kennan: Cold War Iconoclast* (New York: Columbia University Press, 1989), 54–56.

45. The Marshall Plan’s great success—in contrast to the Baruch Plan—may well have encouraged Kennan to draw attention to his ploy; see George Kennan, *Memoirs, 1925–1950* (Boston: Little, Brown, 1967), chapter 14, esp. 342.

46. John D. Hickerson oral history interview with Richard D. McKinzie for HSTL, November 1972: <http://www.trumanlibrary.org/orallhist/hickerson.htm>. Also see Robert Messer, *End of An Alliance: James F. Byrnes, Roosevelt, Truman, and the Origins of the Cold War* (Chapel Hill: University of North Carolina Press, 1982), 185–86. Messer, whose study of the secretary of state under Truman remains one of the best accounts of the genesis of American Cold War foreign policy, also cites Hickerson’s comments about the secret report. Along (apparently) with Messer, we have been unable to find the file itself.

47. We thank Greg Donaghy at the Canadian National archives in Ottawa for his insight on this issue.

6. Stalin and the Burial of International Control

1. *Foreign Relations of the United States, Diplomatic Papers, 1946*, vol. 1, *General: The United Nations* (Washington, D.C.: United States Government Printing Office, 1972), hereafter *FRUS, Diplomatic Papers, 1946*, 1: 806.

2. Richard G. Hewlett and Oscar E. Anderson Jr., *A History of the United States Atomic Energy Commission*, vol. 1, *The New World, 1939/1946* (University Park: Pennsylvania State University Press, 1962), 572.

3. *FRUS, Diplomatic Papers, 1946*, 1: 786.

4. *Vneshniaia Politika Sovetskogo Soiuza: Dokumenty i Materialy, 1946* (Moscow: Gosudarstvennoe Izdatelstvo Politicheskoi Literatury, 1952), 225, 222.

5. Viktor Malkov, *Mankhettenskiĭ Proekt: Razvedka i Diplomatiia* (Moscow: Nauka, 1995), 214.

6. “Spravka o vypolnenii resheniia Moskovskogo soveshchaniia,” report by G. Saksin, March 23, 1946, AVPRF, fond 8, opis 7, delo 101, listy 6–13.

7. On the involvement of the Soviet General Staff in the formulation of personnel policy for the Soviet delegation at the AEC, see Andrei Gromyko to Viacheslav Molotov, March 8, 1946, AVPRF, f. 06, op. 8, p. 7, d. 101, ll. 2–3.

8. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka and VNIIEF, 1999), 2: book 2, 488.

9. Ibid., 2: book 2, 513. Molotov’s briefing is mentioned in K. Mikhailov to Andrei Vyshinskii, May 23, 1946, Russian and Eastern European Archives Documents Database, 1930–49, box no. 1, National Security Archive, Washington, D.C.

10. Aleksei Roshchin to Andrei Vyshinskii, May 22, 1946, AVPRF, f. 06, op. 8, p. 7, d. 101, l. 30.

11. Amy Knight, *How the Cold War Began: The Igor Gouzenko Affair and the Hunt for Soviet Spies* (Toronto: McKlellan and Stewart, 2005), 301.

12. *Foreign Relations of the United States, Diplomatic Papers, 1945*, vol. 5, *Europe* (Washington, D.C.: United States Government Printing Office, 1967), 924.

13. *Atomic Energy Commission, Official Records*, no. 1 (June 14, 1946).

14. Ibid.

15. *Atomic Energy Commission, Official Records*, no. 2 (June 19, 1946).

16. Ibid.

17. L. D. Riabev et al., eds., *Atomnyi Proekt SSSR: Dokumenty i Materialy* (Moscow: Nauka-Fizmatlit, 1999), 2: book 1, 250.

18. For the Russian copy of the conversation between Molotov and Kennan see Russian and Eastern European Archives Documents Database, 1930–49, box no. 1, National Security Archive, Washington, D.C.

19. K. Mikhailov to Andrei Vyshinskii, March 19, 1946, Russian and Eastern European Archives Documents Database, 1930–49, box no. 1, National Security Archive, Washington, D.C.

20. “Poseshchenie Gavaiskikh, Marshalskikh, Karolinskikh Ostrovov i Ostrova Guam,” report by Mikhail Meshcheriakov, September 1, 1946, Russian and Eastern European Archives Documents Database, 1930–49, box no. 1), National Security Archive, Washington, D.C.

21. *New York Times*, July 1, 1946.

22. Cited in Malkov, *Mankhettenski Proekt*, 202–3.

23. *Pravda*, July 3, 1946.

24. *New York Times*, August 13, 1946, 4.

25. Vladimir Dekanozov to Viacheslav Molotov, September 10, 1946, AVPRF, f. 8, op. 7, d. 101, ll. 65–66.

26. *Vnesniaia Politika Sovetskogo Soiuza*, 424.

27. Cited in David Holloway, *Stalin and the Bomb: the Soviet Union and Atomic Energy, 1939–1956* (New Haven: Yale University Press, 1994), 164.

28. Hewlett and Anderson, *History*, 1: 593.

29. *Cold War International History Project Bulletin* 4 (Fall 1994): 56.
30. For an analysis of the Bohr episode see Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York: Simon and Schuster, 1995), 217–22.
31. *Ibid.*, 59.
32. Cited in Holloway, *Stalin and the Bomb*, 141.
33. Cited in Iurii Smirnov, “I. V. Kurchatov i Vlast,” in Iurii Smirnov, ed., *Igor Kurchatov v Vospominani’iakh i Dokumentakh*, 2nd ed. (Moscow: IzdAt, 2004).
34. Riabev et al., *Atomnyi Proekt SSSR*, 2: book 2, p. 322.
35. *Ibid.* 2, book 2, p. 326.
36. *Ibid.*, 2: book 2, p. 328.
37. *Ibid.*, 2: book 2, pp. 378–79.
38. *Ibid.*, 2: book 2, p. 371.
39. Iurii Smirnov, unpublished manuscript.
40. Lavrentii Beria to Viacheslav Molotov, September 13, 1946, AVPRF, f. 06, op. 8, d. 7, l. 66.
41. “Rossiiskii Gosudarstvennyi Arkhiv Sotsialnoi i Politicheskoi Istorii,” AVPRF, f. 17, op. 125, d. 452, ll. 98–102.
42. Cited in Hewlett and Anderson, *History*, 1: 594.
43. Andrei Gromyko to Vladimir Dekanozov, September 2, 1946, AVPRF, f. 8, op. 7, d. 101, l. 35–36.
44. “K voprosu o doklade Nauchno-Tekhnicheskogo Komiteta Atomnoi Komissii,” report by Iakov Malik, undated, AVPRF, f. 8, op. 7, d. 101, ll. 70–71.
45. Hewlett and Anderson, *History*, 1: 589. Gromyko initially proposed to call the committee a “Committee on the Exchange of Information,” but that did not sit well with the other delegates.
46. “K voprosu o doklade Nauchno-Tekhnicheskogo Komiteta Atomnoi Komissii.”
47. Hewlett and Anderson, *History*, 1: 606.
48. *Ibid.*, 1: 607.
49. Semen Aleksandrov to Viacheslav Molotov, October 24, 1946, AVPRF, f. 8, op. 7, d. 101, ll. 86–87.
50. For Skobeltsyn’s proposals see *Vestnik Ministerstva Inostrannykh Del SSSR* 13 (July 15, 1991): 39–40.
51. Cited in V. I. Batiuk, “Plan Barukha i SSSR,” in Ilia Gaiduk, ed., *Kholodnaia Voina: Nove Podkhody, Nove Dokumenty* (Moscow: IVI RAN, 1995), 88.
52. *Vneshniaia Politika Sovetskogo Soiuza*, 423–27.
53. *FRUS, Diplomatic Papers, 1946*, 1: 1023.
54. *Vneshniaia Politika Sovetskogo Soiuza*, 486, 500.
55. *Atomic Energy Commission, Official Records*, no. 7 (December 5, 1946), 92.
56. Hewlett and Anderson, *History*, 1: 594–97.
57. For both memorandums see *Sovetsko-Amerikanskie Otnosheniia, 1945–1948: Dokumenty* (Moscow: Mezhdunarodnyi Fond “Demokratiia” and Izdatelstvo Materik, 2004), 348–52.

58. Cited in Batiuk, “Plan Barukha i SSSR,” in Gaiduk, *Kholodnaia Voina*, 89.

59. *Sovetsko-Amerikanskii Otnosheniia*, 354–57.

60. Telegram, The Charge in the Soviet Union (Kennan) to the Secretary of State, February 22, 1946, <http://www.coldwarfiles.org/files/Documents/Kennantelegram.pdf>.

61. *Foreign Relations of the United States, Diplomatic Papers, 1946*, vol. 6, *Eastern Europe; the Soviet Union* (Washington, D.C.: United States Government Printing Office, 1969), 807.

Conclusion

1. See Richard Hofstadter, *The Age of Reform: From Bryan to F.D.R.* (New York: Knopf, 1955).

2. Quoted in John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941–47* (New York: Columbia University Press, 1972), 316.

3. Milovan Djilas, *Conversations with Stalin* (London: Hart-Davis, 1962), 114–15.

4. See E. H. Carr, *The Twenty Years' Crisis* (London: Palgrave, 2001), for a devastating presentation of this point.

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