

Annihilation Foretold: The 'Trinity' Atomic Bomb & the Fate of Macao's Sister City

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ABSTRACT: Macao' sister-city of Nagasaki was the center of Japan's Roman Catholic faith and held the largest Roman Catholic church in Asia. One of the Church's most renowned saints, St Francis Xavier, founded the community, while the Jesuits governed it from 1580 through the brutal repressions beginning in 1614. Nagasaki's relationship to Macao has been reinforced up until the present era through the São Paulo Ruins, which is actually the ruin of the 'Church of the Mother of God' (Igreja Mater Dei), to which Japanese Catholics from 1602 to 1640 contributed extensively. In Macao also are the remains of Japanese Catholics martyred in the Tokugawa repression.

By the summer of 1945 the Pacific War brought Japan to its knees with the destruction of its naval fleet and the obsolescence of its army air force. Despite suicidal Japanese defensive efforts, the US military had captured Okinawa, a close base to Japan from which to attack Japan's home islands. Fifty-eight of Japan's largest cities had already been destroyed through firebombing. Japan was attempting to negotiate surrender through at least three routes, including the Vatican.

The plutonium bomb dropped on Nagasaki on 9th August 1945, used a new and more powerful technology than the uranium bomb that destroyed Hiroshima. Plutonium became the basis for the nuclear arms race that followed. Designed to break the faith of Japan elites in continuing the war and likely to adversely impact an institution believed to have contributed to the rise of right-of-center movements of the 1920-30s, the bomb was unleashed on top of the undefended Catholic, Urakami Community well north of the Nagasaki city center, killing as many as 140,000. This article explores the obscured nature of the bombing.

KEYWORDS: Nagasaki; Atomic Bombing; Manhattan Project; São Paulo Ruins; Oppenheimer; Plutonium



THE LAST ANNIHILATION OF WORLD WAR TWO

The destruction of Nagasaki in the last significant act of the Second World War by a Plutonium weapon juxtaposes two of the most perplexing facts: J. Robert Oppenheimer, the atheist head of the Los Alamos lab that created the bomb had by early 1945 named its first test as "Trinity." Less than three weeks after its 16th July 1945 first test, Oppenheimer's bomb on 9th August obliterated the largest Roman Catholic church in Asia: a cathedral for the religion that universally was known to proclaim a "Trinity" Godhead. The attack devastated the heart of the historic Catholic community of Japan, killing up to 10,000 Catholics of the 15-16,000 that lived in Nagasaki's Urakami community and leaving thousands more to die from radiation poisoning.

Nagasaki (長崎) was the center of the Japanese Roman Catholic community and held the largest Roman Catholic Cathedral in Asia. Its foundation had been laid by one of the Roman Catholic Church's most renowned saints, St Francis Xavier who had arrived in Japan in 1549. Nagasaki's relationships with Macau from 1567 to 1639 were extensive: Macau and Japan were sister cities, set up to spread the Christian faith in China and Japan. The symbol of Macau, the Ruins of São Paulo, is actually the remains of the 'Church of the Mother of God' (Igreja Mater Dei) which was substantially built by Japanese Catholics between 1602 and 1640 who had fled the disaster in their own homeland. The relic of Saint Francis Xavier, which now rests in the church of the Seminary of São Jose, was brought from Japan following the brutal repression of 1633-4.1

Why is the story of Nagasaki's Urakami Catholic community missing from many accounts of the aerial war on Japan? The irony of Nagasaki and the importance of the Plutonium Bomb that was dropped on Urakami far outweigh that of Hiroshima. That the story is not well known is indicative of the political, technology, and military issues being too unsettling. In 1995, the Smithsonian Institute's effort to tell the story of the less significant Hiroshima bombing were blunted. How much more difficult is the story of a plutonium attack on the undefended and oldest Christian community in a nation on the brink of suing for peace? Since the story has been readily discoverable for decades, the fact it is not more widely known demonstrates the political controversy a thorough discussion would bring.

Through his influence on the Interim Committee of the Manhattan Project, its Scientific Subcommittee and on the Targeting Committee, Julius Robert Oppenheimer had been directly involved in determining how and where his bombs would be used. And, key methodologies for making atomic weapons had been leaked to the Soviet Union from the Los Alamos laboratory which he directed as scientific head of the Manhattan Project. By May 1954, Oppenheimer would be deprived of his security clearance and no longer be able to work on U.S. defense projects.² His extensive interaction over many years with individuals affiliated with Soviet political activities in the United States, including his brother (Frank) and his brother's wife (Jackie Quam), his girl-friend (Jean Tatlock), his wife (Kitty Puening) and his political associates at Berkeley (Haakon Chevalier)³ had generated extreme concern in the new Republican administration of Dwight Eisenhower. Indicative of Oppenheimer's

Julius Robert Oppenheimer: Scientific Director of the Manhattan Project and creator of the Plutonium Bomb, who in 1954 lost his security clearance due to highly questionable contacts with Soviet operatives that included his closest relationships. https://imagejournal.org/2017/05/10/quartet-j-robert-oppenheimer/

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disregard of political norms of common-sense, he appointed his Soviet-affiliated brother Frank as Chief Administrative Assistant to Kenneth T. Bainbridge, the Harvard physicist in charge of preparing the Trinity test.⁴ Anxieties in the Eisenhower administration rose from this blatant problem, not due to the attack on Nagasaki, concerns over which never seem to have been publicly reported.

Brigadier General Leslie Groves, who headed the Manhattan Project that created the atomic weapons and was Oppenheimer's boss, as late as 1962 was unsure as to how Oppenheimer had come up with the test name. Richard Rhodes in his 1986, *Making of the Atomic Bomb*, reports that Groves wrote Oppenheimer in 1962 "to find out why" with Oppenheimer responding, "I did suggest it, ...why I chose the name is not clear...". Groves' curiosity as to the origin of the name arose somewhat late. He had personally ordered that Oppenheimer be provided a security clearance on 20th July 1943 despite substantial misgivings from the head of U.S. Army Military Intelligence for the Western Defense Command, Lt. Colonel Borris Pash⁵.

Rhodes introduces the much-reported assertion that there was "a poem of John Donne... which [Oppenheimer] knew and loved" that provided the suggestion. Never explained is why the non-believing Oppenheimer was reading English Christian poetry from the 17th Century while in war-time and in the middle of the New Mexico desert attempting to build the most destructive weapon ever created. The verse Rhodes quotes does not even utilize the word "trinity." Rhodes states Oppenheimer referenced another Donne poem, but Oppenheimer emphasized, "that still does not make a Trinity.... Beyond this, I have no clues whatever." 6 This statement of ignorance is from one of the most brilliant scientists in America, regarding the origin of the test name that he chose himself, for a stunning event that changed the course of history.⁷ Oppenheimer did not know why he chose the name, but scores of bombing apologists claim they do.

After analyzing Oppenheimer's relations and actions directing the Los Alamos Weapons Laboratory, William Borden, the Executive Director of America's Joint Congressional Committee on Atomic Energy, on 7th November 1953 came to the politically charged conclusion that Oppenheimer had been acting "under a Soviet directive in influencing United States military, atomic energy, intelligence, and diplomatic policy."⁸ Why would he have needed a directive?

JAPANESE PEACE INITIATIVES

In 1946, Captain Ellis M. Zacharias, who during the war was head of Intelligence for the US Navy's San Diego Military District (the 11th) and served as Deputy Director of U.S. Naval Intelligence (ONI)9 had reported in Secret Missions: The Story of an Intelligence Officer that from May of 1945 the Japanese government had been pleading with Vatican of Pope Pius XII to arrange peace negotiations with the United States. The Japanese interface had been a high-level Japanese Roman Catholic bishop who was the relative of the UStrained Japanese Foreign Minister, Matsuoka Yosuke (松冈洋介). The now little-discussed Matsuoka had arranged the key treaties that enabled Japan to launch the Pacific War, including the Axis Tripartite pact in September 1940 and the Japanese-Soviet Neutrality agreement of the Spring 1941.10

Further, by 7th April 1945 when the 80-yearold Admiral Suzuki became Prime Minister (the day after the super-battleship Yamato was destroyed in a suicide mission to Okinawa), the U.S. Naval leadership had its "fondest hopes" realized. A significant report delivered to U.S. Naval Intelligence in a neutral capital gave detailed plans as to Japan's intentions to make peace through Suzuki. Zacharias reported that Suzuki understood the United States and its resolve. The American capture of Okinawa by June, despite the best defensive Japanese efforts, "won territory of paramount strategic importance." The Suzuki cabinet "could no longer conceal from the people at large that the invasion of the Japanese main islands was the next Allied move." Zacharias broadcasts became part of "diplomatic warfare that was progressing in several countries with such divergent protagonists as the Kremlin and the Vatican."11

Zacharias' assertion has credibility because of his long-term affiliation with US Naval Intelligence beginning with his 1920-2 posting to Tokyo for language instruction, his positions as head of the Far East Desk of ONI in 1935, and as district intelligence officer for the key American naval base for the Pacific Theater at San Diego from 1938.¹² That he was not divorced from concerns of Naval line officers

is confirmed by his subsequent command of two capital ships in the Pacific War, the heavy cruiser USS Salt Lake City 1940-2 and the battleship USS New Mexico 1943-4. More importantly he and been ONI's Deputy Director in the summer of 1942 and was the individual under Navy Secretary James Forrestal who was instrumental in creating the March 1945 plan to induce Japan to surrender. For Operation Plan 1-45 of the Psychological Warfare Branch of Naval Intelligence (OP-16-W),¹³ Zacharias wrote the scripts and made the broadcasts to Japan between May and July 1945 that attempted to end the War.¹⁴

HISTORICAL NARRATIVE DISTORTED

Typically, authors of the Pacific War, the Atomic attacks, and Harry S. Truman who followed Zacharias fail to include key aspects of Nagasaki's destruction and ignore his reports of peace initiatives. Examples include John Toland (1970), David Bergamini (1971), Richard Rhodes (1986), David McCullough (1992), Herbert Bix (2000) and David Lu (2002).

John Toland in his exhaustive two-volume text the Rising Sun (1970) does not cite Zacharias in his bibliography, has no references for any Pope, the Roman Catholic Church, or the Urakami Cathedral that was only 500 meters from ground zero.¹⁵ He makes only two passing references to the Vatican. He minimizes discussion of Matsuoka's American experience, focusing only on his activities in the lead up to the Pacific War. Devoting six pages to the impact of the Nagasaki bomb on individuals, of nine cited there is no mention of any Roman Catholics and there is no report on the Urakami Cathedral despite the deaths there of 20 priests and 200 people at confession in anticipation of the festival of the Ascension of the Virgin Mary on 15th August, only six days away.¹⁶ His abbreviated discussion of Nagasaki states that "it was the most Christian city" and "their faith survived" the slaughter of 73,000 rebelling Christians in the 17th century. With insufficient irony, he states that leaflets warning the population to evacuate "fluttered down on the city, tardily" (1010), this on a city that he reports as being "the most Europeanized, the most Christianized city in Japan."17

David Bergamini in his heavily researched 1972 Japan's Imperial Conspiracy, controversially places the blame for the war on Hirohito while describing



As commanding officer of the major US capital ships, a member of ONI, and a personal friend of Hirohito's brother and naval officer, Prince Takamatsu, Zacharias led US Navy operations to induce Japan's surrender before the atomic bombings. http://ussslcca25.com/zach01.htm

Matsuoka's extensive interactions with the Japanese Emperor. But Bergamini does not offer any clues as to Matsuoka's reported relationship to the peace initiatives in 1945 or any possible relationship to the Catholic Church.¹⁸ Although he does cite Zacharias in his bibliography, Bergamini has no index entries for

the Catholic Church, the Archbishop of Tokyo (Peter Tatsuo Doi), or the Vatican. His entries for Urakami (54-5, 82), demonstrate, however, that he is not unaware of the significance of the target, as he reports:

"It [the bomb] was descending over the bowl-shaped valley of Urakami, ... The Congregation at the Friday morning mass in the nearby Our Lady of the Immaculate Conception, the largest Roman Catholic cathedral in the Orient, saw nothing... the opacity of the stained glass saved them from fear before they died."...death was instantaneous. But the bowl of the Urakami Valley shielded the rest of Nagasaki from direct radiation. (54-5) "...the bomb fell, tragically, on Urakami – and blessedly spared Kokura and most of Nagasaki" (82).¹⁹

Richard Rhodes (1986) briefly describes the Nagasaki attack only as being on "the old Portuguese and Dutch-influenced port city, …home of that country's largest colony of Christians," and his index does not list either Matsuoka or the Vatican, while his biography omits Zacharias, a unique and arguably one of the most important published sources on the U.S. strategy to end the war. Rhodes could not have been blind to the significance of the name 'Trinity' because he includes quotes from Oppenheimer's letter to Groves of 20th Oct 1962 in which Groves pushes Oppenheimer for the origin of the name. Among the photos Rhodes includes (#114) is a photo of the ruins of what he terms, "the largest Christian church in Japan (Rhodes substitutes 'Christian' for 'Catholic')." ²⁰

Two popular authors that also omit the efforts to end the Japanese War through the Vatican and restrict discussion of the bombing of Nagasaki in their histories include "award-wining" David McCullough's Truman (1992) and Herbert Bix's Hirohito and the Making of Modern Japan (2000). McCullough, in a text that should have had America's political structure under Truman as a central theme, stunningly minimizes discussions of the importance of the American Catholic vote for the Roosevelt-Truman administrations. He mentions "Catholics" just twice, while having no index entries for Roman Catholic, Irish Catholic, Christianity, the Church, Vatican, and peace initiatives/ efforts. The omission indicates that McCullough's analysis of America's political structure in the 1940s is inadequate.

Even less helpful than McCullough's text is that from Herbert Bix (2000) which focuses on the Japanese political structure under Emperor Hirohito. Published by HarperCollins in New York, its index omits references for peace efforts through the Office of Strategic Services (OSS) in Switzerland or through the Vatican, and only focuses on one of the Hirohito clique's three surrender initiatives, that via the Soviet Union. Omitted are all discussions of the role played by the United States Navy, which was significant, including the US Navy's Office of Naval Intelligence, Admiral Leahy (Chairman of the Joint Chiefs), James Forrestal (Secretary of the Navy), Captain Zacharias (Deputy Director of ONI), and the US Naval code breaking operations that provided to the top Allied leaders detailed intercepts of Japanese communications. One ineffectual data point is offered each for the OSS, Switzerland and MAGIC, and only two on Admiral Nimitz who led the US Naval assault on Japan. Unsurprisingly there is no data on the Manhattan Project, Groves, Oppenheimer, Tinian, Uranium, Plutonium, Urakami, Tibbets, the Enola Gay, Charles Sweeney, or Bock's Car. And, there are just three entries for the Vatican and none for Roman Catholic.

David J. Lu, Professor Emeritus in Japanese History from Bucknell University, in his interviewbased 2002 biography of Matsuoka entitled Agony of Choice gives no indication that Matsuoka had wellplaced relatives that could have served as interfaces between the Vatican and the United States. Lu's data on Matsuoka's wife, Ryuko who was the oldest daughter of Mrs. Shin Tsuneta, is sparse with a comment that she went to Peers School (Gakushuin) and was from Yamaguchi. The go-between for her marriage to Matsuoka was the influential General Tanaka Giichi, Chief of the Army's Military Affairs Bureau. While Lu asserts that the marriage ensured that Matsuoka "was no longer an outsider,"21 without explanation he omits all data on Ryuko's family. He does offer an intriguing description of one of the Matsuoka couple's daughters, Akiko Moses, who came from Sacred Heart Academy in 1946 to join him near his post-war death from cancer on 27th June. But Lu does not indicate how her name was changed from Matsuoka to Moses nor how she came to be affiliated with that Catholic institution. Further, he provides no reference to Nagasaki or the Vatican, and his bibliography does not cite Zacharias, Bergamini, or Rhodes, all authors who preceded him.

Lu's two short references to Pope Pius XII (1939-1958) has Matsuoka in an hour-long meeting

with the Pope on 2nd April 1941, prior to his signing Japan's Neutrality Agreement with the Soviet Union on 13th April but gives no explanation as to how the meeting was arranged. Lu claims that Matsuoka had been "pleased and even overwhelmed when the Pope [Pius XII] asked him to join him in a prayer for peace," but concludes that Matsuoka was "keenly aware of the propaganda advantage that could come out of the audience." Claiming that Matsuoka had been baptized a Methodist in the United States, Lu suggests that his American-trained female medical doctor, Dr. Inoue Yasuyo, arranged for him to be baptized a Catholic. Tellingly he reports that his funeral was held in a Catholic Church in Kanda, Tokyo on 1st July 1946.²²

NAGASAKI'S CHRISTIAN COMMUNITY

For four hundred years from late 1571, Nagasaki had been a gateway city through which Japanese maintained contact with the world, first through the Portuguese until 1639, and then through the Dutch and Chinese until 1854.²³ After the Tokugawa Shogunate slammed shut Japan's door to the outside world in 1639, for over two centuries the Japanese Catholic community of Nagasaki passed on their faith secretly.

Twenty-two years after Francis Xavier had first landed, a Christian settlement was built at the end of Nagasaki Bay in March 1571, and in 1580 Omura Sumitada (大村 純忠) gave the Jesuits lordship over the town. Over the next five decades the city became a center of increasing importance to the Jesuit mission. But as political power centralized in Edo (Tokyo) under Tokugawa Ieyasu (德川家康) Jesuit prospects shrank, and on 31st January 1614 Ieyasu forced all Catholic missionaries from the country. Brutal repression followed with 55 Catholics executed 10th September 1622, including 25 religious who were burnt alive. Expulsion of Portuguese in 1639, was made unequivocal by the beheading in Nagasaki of sixty-one Portuguese who in 1641 had come from Macau to reestablish trade links. ²⁴

The Catholic faith was driven underground where it secretly was passed-on generation to generation for over two centuries. Monsignor Bernard Petitjean (1829-1884) from the French Foreign Missions (Mission Etrangères de Paris) arrived in Japan in 1859 to re-establish a mission. By 19th February 1865, his church in Nagasaki had been completed. One month later, on 17th March, he was astonished to find Japanese Catholics kneeling at his church exclaiming, "we are of the same heart as you, where is the image of Saint Maria"?²⁵ Thought to be extinguished, the faith had miraculously survived. But even in the Meiji Era, post Japan's opening 14 years before, repression of Urakami's Catholics continued. In June 1868, as many as 4,500 from Nagasaki and the Gotō Islands (五島列島) who had emerged to form the new Urakami Catholic community were exiled or imprisoned, a situation that lasted to 21st February 1873 as international pressure, particularly from Italy, caused its end. ²⁶

During the Pacific War in the next century, by the summer of 1945 Japan had been brought to its knees through the destruction of its naval fleet, its lack of fuel, and the technological obsolescence of its army air force. Despite suicidal Japanese defensive efforts, in June 1945 the US military captured Okinawa, a close-in base to Japan from which to attack Japan's home islands. From bases on Tinian, Okinawa and Iwo Jima, the US Army Air Force had already destroyed fifty-eight of Japan's largest sixty cities, many through fire-bombing. Mining of Japan's waterways by air and submarine had paralyzed its shipping. Its anti-aircraft defenses were insufficient to cope. Food supply was rapidly declining and further rice production could be disrupted by air. The Japan's government was attempting surrender negotiations through at least three routes: through the Soviet Union, through the OSS in Switzerland, and through the Vatican according to accounts from the US Office of Naval Intelligence.²⁷ Many of Japan's civilian and navy ministers knew the war was lost, but the Army was fanatically determined to carry on. ²⁸

The plutonium bomb dropped on Nagasaki on 9th August 1945 was the second atomic strike of two that were designed to break psychologically the faith of the Japanese elite to continue the war. Unleashed on top of the undefended Catholic Urakami Community two miles north of the Nagasaki harbor, the bomb killed 73,884 and injured 74,909.²⁹ Most were non-combatants: the elderly, women, and children. Half may have been burned alive from the extraordinary light and heat that reached 5,400 - 7,200F degrees below the explosion and 1,000F Degrees one mile away, while others subsequently died from radiation poisoning.³⁰

The bomb fell 2000 meters (1.25 miles) north



Immaculate Conception Cathedral of Urakami in Nagasaki (無原罪の聖母司教座聖堂) rebuilt in 1958 (courtesy of Yoshio Kohara, Wikipedia, 2019)]https://en.wikipedia.org/wiki/Immaculate_ Conception_Cathedral,_Nagasaki#/media/File:%E6%B5%A6%E4%B8%8A%E5%A4%A9%E4%B8%BB%E5%A0%82_-_panoramio.jpg



of Nagasaki's downtown wharf area and about 1,000 meters north of the Urakami rail station. Photos of the bomb blast taken one minute after the bombing show virtually no clouds over ground zero,³¹ which contradicts sanctioned reports of extensive cloud cover. Over half a mile to the north of the hypocenter (1,000-1,500 meters) was a Mitsubishi Armory (Ordnance) plant at Ohashi. Beginning half a mile to the south at Morimachi was the Mitsubishi Steel and Arms Works which stretched another mile until reaching the Nagasaki docks 1.5 miles away. Between the two facilities lay the Urakami community with a population 50% Roman Catholic (whose numbers totaled 15-16,000).

Ten thousand of these were killed by the bomb, with other reports indicating this represented 80% of the Catholics of the Urakami community.³² In an arch circling the hypocenter were a series of hospital and educational facilities which included at 500 meters (1/3 of a mile) in a clock-wise circle: the Urakami Cathedral (2:00), the Nagasaki Medical College (3:00), the Hospital of the Nagasaki Medical College (4:00), Mitsubishi Boys Industrial School (5:00), Mitsubishi Hospital Urakami Branch (6:00), Chinzei Boys High School (7:00), Nagasaki Tuberculosis Clinic (8:00), Shiroyama National Primary (Elementary) School, Municipal Nagasaki Commercial School (11:00 at 1000 meters), Urakami Branch Prison (12:30; at 350 meters), Yamazato National Primary School and Prefectural Nagasaki Technical School (1:00 at 750 meters), and Josei Woman's Practical School (1:30 at 500 meters).³³ Within the center of these facilities was the Mitsubishi baseball park and stadium, over which at 500 meters the bomb exploded. Approximately 33% of the city was destroyed.

Joseph Marx reported that the American bomb "killed more Japanese Catholics (seven thousand) than the most violent religious persecution there." He termed it "the center of Catholicism in Japan" and that its cathedral, *Our Lady of the Immaculate Conception*, was "the largest Roman Catholic Cathedral in the Orient."³⁴ Paul Ham wrote that 8,500 of the 12-14,000 Catholics in Urakami, Japan's largest Christian community, were killed,³⁵ while Mayor Okada of Nagasaki on 4th



Plutonium bomb explodes over a virtually cloudless Urakami Community] : https://ww2db.com/image.php?image_id=20502 https://ww2db.com/images/battle_hiroshima182.jpg

図4.5 長崎市の建物被害状	況.		
1 長崎市役所	9梁川橋	18 三菱重工長崎造船所幸	25 淵国民学校
2 長崎県庁	10 山王神社	町工場	26 銭座国民学校
3 長崎医科大学	11 山里国民学校	19 三菱製鋼長崎製鋼所第	27 浦上水源地
4 長崎医科大学附属病院	12 城山国民学校	一工場	28 西山水源地
5 浦上天主堂	13 瓊浦中学校	20 西浦上国民学校	29 本河内水源地
6 三菱重工長崎兵器製作	14 長崎商業学校	21 長崎師範学校	30 三菱重工長崎造船所
所大橋工場	15 長崎工業学校	22 浦上刑務支所	31 新興善国民学校
7 三菱重工長崎造船所大	16大橋	23 三菱重工長崎兵器製作	32 三菱電機長崎製作所铸
橋部品工場	17 浦上第一病院(現·聖	所住吉トンネル工場	物工場
8 稲 佐 橋	フランシスコ病院)	24 鎮西学院中学部	

Map of Bombed Nagasaki; Midorikawa Akira 線川享 (1982), Hiroshima and Nagasaki Atomic Disaster (廣島長原爆災害), Hiroshima: Hiroshima & Nagasaki Atomic Explosion Disaster Publishing Committee, 32-3.



Map of Bombed Nagasaki; Midorikawa Akira 線川享 (1982), Hiroshima and Nagasaki Atomic Disaster (廣島長原爆災害), Hiroshima: Hiroshima & Nagasaki Atomic Explosion Disaster Publishing Committee, 32-3.

September 1945 reported that 10,000 of the 15,000 Catholics in Urakami had died. Twelve hours after the blast Nagasaki was still in flames and visible from 200 miles away.³⁶ "Not until 25 years after the war ended did Washington officials allow a film shot of Nagasaki after the bombing to be shown to American audiences." ³⁷

PLUTONIUM

The plutonium technology in the "Fat Man Bomb" that destroyed Urakami has been central to military strategy since the end of the Second World War. The technology was different from the primitive uranium-bomb technology that on 6th August 1945 destroyed Hiroshima. Major Charles Sweeney, pilot of *Bock's Car*, the B-29 that dropped the Nagasaki bomb (Fat Man) reported that Colonel Paul Tibbets, commander of the special atomic bombing unit (509th Composite Group) explained before the mission that "Fat Man was a much more powerful bomb and quite different from the one he had dropped on Hiroshima." Because of the Nagasaki bomb, the Hiroshima (Little Boy) was now obsolete, and that "the brass in Washington were following our mission very closely."³⁸ The plutonium bomb exploded with a force of 22 kilotons over Nagasaki, the uranium Hiroshima bomb was equivalent to 12.5 kilotons.³⁹

Because plutonium could be created from the abundant isotopes of uranium (U-238), nuclear weapons of the Nagasaki-type could be created in massive numbers. The fissile isotope of uranium of the Hiroshima-type weapon (U-235), however, was so rare that only limited numbers of weapons could be created, and these were of much less power. Plutonium of the Nagasaki bomb could be created in nuclear reactors, and it therefore allowed the cabals that controlled nations to become nuclear-armed, 'strategic players.' Without plutonium weapons, there would be no superpowers or nuclear weapon states.

Plutonium also had one other unique characteristic. It was the deadliest substance ever created. One millionth of an ounce when inhaled was 100% certain to cause lung cancer. Approximately six kilograms were vaporized over Nagasaki.⁴⁰

It is said that plutonium is named for the planet Pluto, because its atomic number of #94 was the next element in atomic weight after Neptunium #93. Pluto



Bock's Car and model of the "Fat-Man" Plutonium Bomb] https://commons.wikimedia.org/wiki/File:Fat_Man_and_Bockscar.jpg

was the God of the Underworld. It would have been more fitting to name this man-made element after another name for a god of the underworld of Hades, Satan. Who could better have provided the inspiration?

An Irish Catholic from Quincy Massachusetts, promoted to Major General before his retirement in May 1976, Charles Sweeney offered a memoir in 1997 that did not mention a word concerning the unique Roman Catholic community on to which he would drop the Plutonium bomb that made Colonel Paul Tibbet's Uranium bomb obsolete. Sweeney's text does provide intriguing details not seen in other reports: he had a complete lack of combat experience prior to being selected for the Plutonium Bomb mission.⁴¹

More importantly, he swapped aircraft with a veteran pilot of the XXth Bomber Command that did have extensive long-flight combat experience in China and against Japan. A twenty-one-year-old air cadet in 1940, within five years Charles Sweeney had not flown a mission in combat but as a Major he out ranked Captain Frederick Bock, who did. Major Charles Sweeney was assigned the Plutonium mission and ordered to swap planes with Bock. Sweeney flew Bock's Car with the weapon, while Fred Bock flew Sweeney's The Great Artiste that carried measuring instruments. A third plane, The Big Stink, was tasked with creating the photographic record of the bombing, but its pilot, Lt Col James Hopkins, inexplicably failed to rendezvous with Sweeney and Bock off Kyushu's Yakoshima island despite Hopkins outranking both.42 If the attack on Urakami had been deliberately planned, the pilot to unleash the bomb would have to be seen to be a Roman Catholic⁴³ and the photographic evidence minimized. Fred Bock's ethnic heritage was not publicly discernable. Colonel Tibbets informed Sweeney that we would be the pilot for the Plutonium bomb the evening of the 6th August after they had returned from the first bombing run against Hiroshima.44 Groves, who was born in Albany, New York and the son of a Presbyterian army chaplain,⁴⁵ does not indicate in his memoirs as to whether he had been involved in the selection.

Ruins of Nagasaki Medical College Hospital (長崎医科大学附属医院) east of groundzero, looking west across Valley of Death to Shiroyama Elementary School (城山小学校)





THE NUCLEAR WEAPONS STATE

Plutonium defines strategic power. It creates the weapons, the electricity and the poison that baptizes governments into the ranks of "strategic nations." In 1900 imperial governments needed global weapons to enhance their ability to acquire domestic and international resources. They made the great naval fleets of Britain, the United States, Germany, Russia, France and Japan. One hundred years later, governments seeking major power still need these fleets. Now their global fleet is the plutonium bomb on a ballistic missile. This world-ending weapon grew from a witch's brew of atomic physics, ethnic paranoia, and unrestrained war.

In order to be a super-power a state must be able to manufacture enough weapons to be able to strike at enemies and to retaliate should those enemies strike first. These weapons require delivery systems, early warning systems, control systems, maintenance systems, manufacturing systems, and disposal systems of enormous size and cost. Plutonium, its by-products and its decaying isotopes are so deadly, and the weapons are so powerful, that common sense requires there be a vast police establishment.

The weapons institutions feed into electric power, regulatory, industrial, policing and educational institutions. They require priesthoods of experts and security officials, giving those that belong to and control this nuclear-caste increasing political and economic power. Once a political elite injects the technology into their defense apparatus, their society is hooked. The required systems make withdrawal virtually impossible. So too, if political operatives believed that the United Nation's Security Council was to house the representatives of the permanent global strategic powers, then by definition all these nations needed plutonium weapons. And, if one political elite believed its allies needed strategic counter weights to regional foes, their allies too might get these weapons. While the global nuclear-priests sang lullabies of nonproliferation, the technology was licensed to cohorts in France, China, India, Pakistan, Brazil, Japan and Korea, or provided surreptitiously to Israel. Now, these states can also provide the technology secretly for their own strategic purposes.

And there are other problems with this technology: Plutonium made today, may not be plutonium in several years. Plutonium atoms can mutate into something with an entirely different atomic structure that does not fission and cannot explode. Fragments from spontaneously fissioning plutonium nuclei may absorb significant amounts of neutrons that dampen the chain reaction of neutron release that causes a nuclear explosion. For a state to continue be a super-power it must always produce fresh plutonium. As a result, unstable plutonium and the nuclear waste derived from it incessantly build.

Plutonium is a man-made substance that has four maintain isotopes, each of which deteriorates at a different rate. Bombs are made when only one predominates, Pu 239, which has a half-life of 24,000 years. The others have shorter half-lives and deteriorate more rapidly: Pu 238 in 88 years, Pu 240 in 6,400 years, and Pu 241 in just 14 years. ⁴⁶ Chemical processes cannot separate the plutonium isotope used in bombs from the contaminating other Plutonium isotopes.

The deterioration of the Plutonium causes the weapons from which they are constructed to deteriorate, the extent of which is not easy to determine due to the mix of fissile material and the randomness of transmutation and neutron absorption. Elites that build the weapons must constantly test them as they age to determine if they remain functional. So, the weapons are blown up regularly in tests conducted in holes drilled in the earth at increasingly un-remote locations, including Nevada or Tahiti or under mountains in Northeast Korea.

EASTERN EUROPEAN ÉMIGRÉ SCIENTISTS

The perplexing anomalies of atomic weapons can be exemplified through life of some of the exiled nuclear scientists that created the technology. Those building atomic weapons for the Americans or British had colleagues who were investigating atomic power for Germany, building weapons for the Soviets, or exploring the possibility for Japan.⁴⁷ Working separately for their governments, these scientists created a world dominated by weapons that could destroy it. And, in that world their power and prestige grew.

Edward Teller, the man who wrote the letter to FDR that Einstein signed, and which is given credit for initiating the US Manhattan project, obtained his PhD at University of Leipzig from the man that ran

the German atomic program in the Second World War, Werner Heisenberg. Born in Budapest, he was an émigré from Nazi Germany who was forced to leave by the early 1933. After stimulating FDR to start the program, he worked closely on the design of the fission weapons. By the time the Soviets had the fission weapon in the late 1940s, he was promoting the concept of the hydrogen-fusion weapon. Teller received directorship of the Lawrence Livermore Weapons Laboratory of the Berkeley campus of the University of California as a prize. Eight months after the U.S. exploded its first hydrogen weapon, the Soviets followed. The U.S. lead had lasted less than a year. Another race to build weapons began, and weapons appropriations grew.

Lise Meitner at Lund University in Sweden received notice in late 1938 from Otto Hahn at the Kaiser Wilhelm Institute in Berlin of his discovery of the fissioning of uranium. The exiled Meitner passed the secrets of fissioning on to her network in Britain, while Hahn stayed in Germany through World War II and with Teller's professor, Werner Heisenberg, worked on the perfunctory German atomic program. Meitner's information sent the Hungarian émigré scientists Edward Teller, Leo Szilard and Eugene Wigner into a frenzy of activity that by 2nd August 1939 (eight months later) resulted in Albert Einstein writing a letter to President Franklin Delano Roosevelt (FDR) to promote the idea of a nuclear weapon. From Otto Hahn in Nazi Germany Meitner in Sweden had motivated her British-based network to initiate a goal of building an atomic weapon targeting Otto Hahn's Germany. R.V. Jones reported that Otto Hahn in August 1945 was so upset about the use of atomic bomb that he had to be restrained from committing suicide.48

The exile Leo Szilard of Hungary tried to patent the key concept for a nuclear bomb, a nuclear chain reaction, in June 1934 five years before World War II began; and, before fission or uranium had been discovered. After he had provided the fundamental concepts for a nuclear bomb (chain reaction, critical mass & tamper),⁴⁹ while at Los Alamos, he came to be presented as the enlightened leader of the scientific faction that, with Germany surrendered, did not wish his own brain-child to be used. Earlier after the fission of uranium had been discovered in Germany, he helped Teller and Wigner write Einstein's initiating



Lise Meitner, exiled physicist from Austria, while at Lund University in Sweden, passed on to Niels Bohr and his network in Britain the message from her former colleague Otto Hahn at Berlin's Kaiser Wilhelm Institute that in December 1938 he had discovered the fissioning of Uranium.

letter of 2nd August 1939 to Roosevelt. Szilard is barely remembered for the creation of key bomb concepts. And, he also has escaped being named in the atom spy rings that gave the Soviets the bomb, despite the Soviet that headed those spy-rings, Pavel Sudoplatov, claiming in 1995 that Szilard, Fermi, and Oppenheimer were instrumental in allowing the Soviet Union to speed its atomic development. ⁵⁰

Niels Bohr, the physicist who created the modern theory of electron shells, was forced to leave from

German-occupied Denmark for London in September 1943 due to his ethnic status. He carried with him the design of a heavy-water moderated reactor obtained from the head of the German atomic program, Werner Heisenberg. On landing in Britain, he became a senior consultant to the British atomic program (the Tube Alloys project). Within months, by late 1943, he was in Los Alamos helping the Roosevelt administration design its first nuclear weapon. By early in 1944 he was back in Britain seeking to obtain Churchill's support for a plan that would have shared atomic weapons data with the Soviet Union. While he corresponded with a senior Russian atomic scientist (Peter Kapitza) he reported to British security. Nuclear weapons theories were spread like the Black Death.⁵¹

And what of the German program? Groves reports it was highly constrained, and that Allied efforts to assess Germany's capability were only set up after March 1944, an extraordinarily late date given the supposed Allied concerns of a German program. Following entry to Germany on 24th February 1945, Dr. Samuel A Goudsmit (Director of MED Analysis of German efforts for the ALSOS intelligence mission) reported to Groves that "On the whole, we gained the definite impression that German scientists did not support their country in the war effort." 52 Oppenheimer in an interview with Stephane Groueff in 1965 stated he "talked at length with [Niels] Bohr to see what he knew about it. But what he knew was very reassuring... They [the Germans] were not doing this. They were doing something else and we wondered if they saw some way with slow neutrons to make something. But you cannot, of course, and we just worked on it long enough to reassure ourselves."53

BUREAUCRATIC STRUCTURES IN THE ROOSEVELT ADMINISTRATION

How the decision to drop the plutonium bomb on Nagasaki was made by elements within the United States Government is not recorded or reported, but it certainly was centered in the Manhattan Project's Target Committee, over which J. Robert Oppenheimer wielded significant influence. When Oppenheimer was asked by Groves on 15th October 1942 to head the laboratory to create the bomb, Oppenheimer would bring with him a personal network of individuals (which included his younger brother Frank) who were closely affiliated with Soviet activities.⁵⁴ Research, manufacturing, transportation and delivery systems of the Manhattan Project and the US Army Commands were deliberately isolated from one another. Bureaucratic and security interests were fragmented, and those with an inkling of the issues competed for the authority to set policy.

The firebombing campaign against Japan launched by the US Army Airforce XXIst Bomber Command in the late November 1944 and early spring of 1945 illustrates fragmentation within the Washington leadership group. The operational commander of the firebombing campaign, General Curtis LeMay in the Mariana Islands, reported directly into Washington D.C. His direct senior was Commanding Officer of the Army Air Corps, Lt. General Hap Arnold, who in turn reported directly to George Marshall, Chief of Staff of the Army. As the two senior commanders for the only two army divisions of the War Department, Marshall and Arnold both reported to Henry Stimson, Secretary of War. All of them were in Washington DC.

Details of the firebombing reached Henry Stimson not through Arnold or Marshall but through reporting in the censored American media. Discussing the situation with Arnold, Stimson indicated that Lovett, the Under-Secretary for Air, promised, "Only precision bombing would be used against Japan." Arnold replied, "it was practically impossible to destroy the war output of Japan without doing more damage to civilians connected with the output than in Europe." It is reported that Stimson had no other information and believed Arnold. ⁵⁵

The firebombing of Tokyo had been one of the most horrendous acts yet undertaken in modern warfare. Conrad Crane in *Bombs, Cities & Civilians* provides the details:

Before Operation MEETINGHOUSE was over, between 90,000 and 100,000 people had been killed. Most died horribly as intense heat from the firestorm consumed the oxygen, boiled water in canals, and sent liquid glass rolling down the streets. Thousands suffocated in shelters or parks; panicked crowds crushed victims who had fallen in the streets as they surged towards waterways to escape the flames. Perhaps the most terrible incident came when one B-29 dropped several tons of incendiaries on and around the crowded Kokotoi Bridge. Hundreds of people were turned into fiery torches and "splashed into the river below in sizzling hisses." One writer described

the falling bodies as resembling "tent caterpillars that had been burned out of a tree." Tail gunners were sickened by the sight of hundreds of people burning to death in flaming napalm on the surface of the Sumida River.... B-29 crews fought superheated updrafts that destroyed at least ten aircraft and wore oxygen masks to avoid vomiting from the stench of burning flesh. ⁵⁶

If Crane's report is accurate reporting to senior government officials was remarkably shoddy, but it is more likely to have been a deliberate attempt to distance senior U.S. officials from an air strategy with results that were beyond description. The documentary evidence confirms this strategy was not the result of operational commanders with too much power and no constraints. LeMay's XXIst Bomber Command was part of the 20th Air Force reporting directly to the Joint Chiefs of Staffs via General Hap Arnold across the Potomac from the White House. The Committee of Operations Analysts that appraised target systems for him was there.⁵⁷

Set up on 11th September 1944 in Washington DC, was the Joint Target Analysis Group (JTAG) as an inter-service organization under the 'Assistant Chief of Air Staff,' Intelligence, to gather data from all intelligence sources (USAAF, ONI, Royal Air Force, OSS, Foreign Economic Administration, the National Defense Resources Council, and other appropriate agencies.). It published sophisticated analyses of cities, harbors and facilities in Japan for bombing, the quality of which demonstrates that the reports were being disseminated widely to relevant units. The JTAG operated under Air Deputy Chief of Staff for Intelligence, Major General James Hodges, who reported into Lt General Barney Giles, Deputy Commander of U.S. Army Air Forces. Giles was the key subordinate of General Hap Arnold, the top Commander of the US Army Air Forces. On 14th October 1944 Arnold changed the name to "Joint Target Group, AC/AS [Assistant Chief/Air Staff], Intelligence" (JTG).⁵⁸ The quality and thoroughness of their reporting is attested by the detail of its report on Fukoka, the major city of Nagasaki's Kyushu Island(See report on Fukuoka Region presented below).

In the fall of 1944 there was a change in US air warfare strategy over Japan. Major General Haywood S. Hansell, who was Chief of Staff 20th Air Force assumed command of its XXI Bomber Command in the Pacific that was being set up in Mariana Islands, in the South Pacific for strategic bombing of Japan. Lauris Norstad replaced Hansell in Washington DC as Chief of Staff of the 20th Air Force that controlled the XXI Bomber Command. On 18th December 1944, just two months after the Japanese Imperial Fleet was effectively destroyed at Leyte Gulf, Hansell was ordered to launch an incendiary attack against Nagoya following a successful precision attack there. Hansell objected. He was removed as commander of the XXI Bomber Command and by 19th January 1945 LeMay had arrived in Guam to assume command.⁵⁹

Though LeMay carried on with Hansell's original strategy of targeting the Japanese aircraft industry, a visit by Chief of Staff of the 20th Air Force from Washington DC, Lauris Norstad, six weeks after LeMay assumed command changed that. Norstad informed LeMay that General Arnold was unsatisfied with the results of the campaign to date and that a "drastic reappraisal was in order. LeMay made it."60 Night attacks on Japanese cities with incendiaries and radar bombing were to be carried out. In March of 1945, the Joint Target Group based in Washington under the U.S. Army Air Force had been operating for six months. It reported into the Joint Chiefs of Staff through General Hap Arnold, who was head of the US Army Air Corps and directly in control of the 20th Air Force. It had designated 33 urban areas for the firebombing that by March 1945 LeMay implemented.⁶¹ LeMay had not developed the idea of fire-bombing attacks independently from command centers in Washington.

When the deadly results of the attacks became known, "the Joint Target Group of the Joint Chiefs of Staff seized upon the new tactic with enthusiasm."⁶² Joint Target Group selected 22 vital Japanese cities, and on 3rd April 1945 the 20th Air Force picked 6 urban areas from the list, including (i) aircraft engine manufacturers: Nakajima-Musashi in Tokyo, Mitsubishi in Nagoya, and (ii) urban areas: Tokyo, Kawasaki, Nagoya, and Osaka. Hansell indicates that the outcome of the incendiary attacks was an endorsement of area firebombing to "the near exclusion of selective targeting." ⁶³

Assisting in target selection apparently was another Washington D.C. based group, the Strategic Air Intelligence Section (SAIS). By the end of June 1945, with the development of the new AN/APQ-7 targeting radar the 20th Air Force's ability to conduct precision attacks increased sharply. Area incendiary attacks were complemented by SAIS directed attacks on KURUME 90.35 INDEX OF TARGETS AND SUMMARY (FUKUOKA REGION) CONFIDENTIAL equals British Confidential

Air Objective Folder FUKUOKA REGION KURUME AREA, No. 90.35

INDEX OF TARGETS BY NUMBER, CLASSIFICATION AND NAME

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Summary and Evaluation of Fukuoka Region

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The industrial development of the Fukuoka Region centers on the city of Fukuoka. The city has long been a leading port for trade between the Japanese Islands and Korea, and a new ferry between these points has recently been established.

The most important industries lie south of Kyushu University—a landmark on the Bay. The most southerly target is Nippon Rubber Co. **TARGET 1245** producing footwear and a few tires. Large buildings in this area which are not considered targets include the Tofu Flour Co., Dai Nippon Beer Co., and Kanegafuchi Spinning Mill. Fukuoka Harbor **TARGET 1255** has been enlarged by a filled extension which is capable of taking ocean-going ships. This made land is now covered with warehouses and has railroad connections with the Kyushu RR network. The new extension is the only known wharf on the Fukuoka side of the bay capable of taking deep-draft vessels. Ships also lighter.

Southeast of the wharf is the old town of Hakata containing many small industries. The only large plant is Watanabe Iron Works, Plant No. 1 TARGET 1235 which produces ordnance and heavy machinery for the Navy. The Saibu Gas Co. tanks adjoining on the NW are landmarks. NE of this plant are the Hakata RR Yards TARGET 1270. These have lost much of their former importance since the development of the Tosu Yards TARGET 1871 but are still used. Further east is the Tatara Machinery Works TARGET 1873, producing ordnance and special types of coal loading machinery. Neither the Watanabe or Tatara plants are primary targets.

North of Kyushu University is the Showa Iron Works Plant TARGET 1872. The location shown on the Fukuoka map is approximate only. This is a small plant producing ordnance and special machinery. Just north of this plant are two railroad and one highway bridges across the Najima River. Their destruction would hamper but not stop rail and road transport between Fukuoka and the north, since there are other roads and railroads connecting Fukuoka and Yawata. The alternate routes are, however, much longer.

North of the Najima River are the Najima Steam Power Plant TARGET 664 and the Najima Seaplane Base TARGET 1237. The power plant is connected with the same grid as the large Omuta steam plants and must be considered as a potential source of power for both the Omuta Region and the Nagasaki-Sasebo Region, as well as the Fukuoka industries. The seaplane base has declined in importance with the development of the Fukuoka Air Station TARGET 663 across the bay.

North and east of these installations is a sizable strip of made land on the east side of Hakata Bay. New industrial development is reported in this area.

The Saitozaki Petroleum Center TARGIT 663 and Fukuoka Air Station TARGIT 663 lie on the north side of Hakata Bay, some distance apart. The petroleum center is known to have storage for over 300,000 bbls. of oil, and coal bunkering facilities. Extremely important as a coal and oil bunkering point for merchant ships moving to and from the Shimonoseki Straits. The Fukuoka Air Station was the principal civil airport in Kyushu prior to the War, but is now believed to be an important link in the air defense of the Island and a naval air training station. KURUME 90.35 INDEX OF TARGETS AND SUMMARY (FUKUOKA REGION)

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the Japanese petroleum industry as the newly equipped 315th Wing arrived on Guam in late June to launch the attacks. Fifteen attacks were carried out between 26th June and 14th August 1945 against targets that could be better termed "precision."

But senior US leadership had been caught. Technology and opportunity trumped the morality of their previous lives. Henry Stimson, Secretary of War, was directly responsible for the political coordination of the Manhattan Project and would have been warned of the scale of the violence that the potential atomic weapon might generate. It is unlikely he could have been deluded into conceiving the atomic weapon as an instrument of "precision-bombing." The nuclear weapon eliminated the verbal fig leaf that strategic bombing would not be one of mass violence directed at those traditionally regarded as non-combatants.

After a memo from O.C. Brewster an engineer who had been working on the project, Stimson became highly concerned over the impact of its development. From 27th May 1945, after he visited with Harry Truman to review the atom bomb, he concluded that it would be his "primary occupation" for the next few months. On May 30th he indicated that it was the first day he had "succeeded in devoting himself almost wholly" to the project. ⁶⁴ Yet the Manhattan Project had formally begun in September of 1942 two and a half years before.

SELECTING THE TARGETS OF ATOMIC WEAPONS

The 1962 memoirs of General Lesley Groves entitled *Now if Can be Told* leave little doubt that Groves believed he had assumed responsibility for target selection. His Chapter 19 'Choosing the Target' states specifically that he followed General Marshall's instructions "to keep the operational phases [Groves] project entirely apart from the OPD." The OPD was Operations Planning Division of the General Staff, with whom General Arnold, head of the Army Air Force, was directly involved. In consulting this with Arnold, Groves stated, "our most pressing job was to select the bomb targets. That would be my responsibility."⁶⁵ Groves would bring Oppenheimer heavily into the process that would be decide how and where to utilize the weapons.

However, recommending targets based upon data at a technical level was different matter from approving those targets at a political level. At the political level changes of key decision makers and the international situation were coming rapidly. The death of President Roosevelt on 12th April 1945, creating the United Nations from 25th April, concluding the war against Germany from 1st May, preparing for the Potsdam Conference with the Soviets in July, directing strategy against Japan as Okinawa was secured in June, and formulating a post-war relationship with the Soviet Union heightened tensions and reduced the time for key decisions. By 3rd July, the U.S. had a new powerful Secretary of State in the person of James Byrne, while the conservative party's Winston Churchill, long-term Roosevelt ally, had been forced from power by the British Labour Party.

The untried new US President, Harry Truman, had little foreign policy experience and the previous Secretary of State, Edward Stettinius, on 30th November 1944 had replaced Cordell Hull, a Democratic Party veteran who had held the position from the start of the Roosevelt administration. Between May to July of 1945 Truman and his advisers would make decisions that would shape the globe for decades to follow.⁶⁶ These would have been difficult to manage over a longer, less stressful period, and Henry Stimson, the U.S. Cabinet Secretary who oversaw America's Army and Air Force was 78 years old.

POLITICAL FACTIONS IN THE ROOSEVELT ADMINISTRATION

Three bureaucratic groupings in the Army-War, Navy and State Departments respectively vied for influence with the forces that controlled Democratic Party's Truman administration following the death of Franklin Roosevelt on 12th April 1945. There were two circles of influence: an outer group that strategized for the surrender of Japan and an inner group (of a much smaller number) who were aware of the possible existence of atomic weapons. The July-1944 Democratic Party Convention that nominated candidates for the election of November 1944 replaced the left-of-center Henry Wallace from Iowa with the more centrist Harry Truman of Kansas.

James Byrne of South Carolina who was known

as the "Assistant President" under Roosevelt due to his position as the Director of War Mobilization was not able to gain the 1944 nomination as the Democratic Party's Vice-Presidential candidate. With the death of Roosevelt on 12th April, Byrnes maneuvered successfully to be named Secretary of State, the next in the line to succeed to the Presidency if the President was incapacitated. He gained that position on 3rd July 1945. The new American President, Harry S. Truman, was not fully aware of the bomb project until briefed after Roosevelt's death by Stimson and Groves on 25th April (thirteen days after FDR's death), while Giovanni (1965, 26) reports that Byrnes already knew, telling Truman the day after Truman's inauguration. Forrestal had summoned Byrnes to Washington, after Byrnes resigned his post on 8 April. Byrnes was then nominated to the Interim Committee as Truman's representative.

As Director of War Mobilization and the new Secretary of State, Byrne's was a protégé of Democratic Party king-maker Bernard Baruch of New York who had helped bankroll Roosevelt. He was the second-most powerful visible figure in the Truman administration, participating in the Potsdam Conference and playing a leading role in preventing a softening of the Roosevelt position that demanded "unconditional surrender" from the Axis nations. Closely affiliated with this group was Samuel Irving Rosenman, the White House Counsel from 1943 to 1946, who had coined the term "New Deal" for Roosevelt, and Benjamin V. Cohen, who had been counsel to James Byrne in the Office of War Mobilization and would join him as Special Assistant when Byrnes became Secretary of State.

Three bureaucratic-military groups vied to influence the Truman-Byrnes political entourage, primarily to strategize on how to attain Japan's surrender. The atomic weapon would not be a fact until mid-July:

> (i) Army & Air force Group had developed the bomb and controlled the delivery units. Led by Henry Stimson as Secretary of War, it included Five-Star



James Byrnes, U.S. Secretary of State standing at Potsdam, with his hand around Soviet Foreign Minister Molotov's arm, and to the left of Ernst Bevin, the British Labour Party's domestic organizer who became Britain's Foreign Secretary on 26th July 1945 https://commons.wikimedia.org/wiki/File:Potsdam_Conference_group_portrait,_ July_1945.jpg



General George Marshall as Army Chief of Staff, Lt. General Hap Arnold as head of the Army Air Force and the strategic 20th Air Force, Brigadier General Leslie Groves heading the Manhattan Project, head of Strategic Air Forces General Karl Spaatz, Chief of Staff of the 20th Air Force Lauris Norstad, and the 20th Air Force targeting group providing services to the Target Committee;

- (ii) Navy Group had defeated the Japanese Imperial Navy, seized the islands used to bombard Japan, and undertook the critical code-breaking operations against Japan. Led by James Forrestal, Secretary of the Navy, it included Fleet Admiral William D. Leahy (Chairman of the Joint Chiefs), Admiral Ernest King (Chief of Naval Operations), and Captain Mark Zacharias Deputy Chief of the Office of Naval Intelligence (ONI). Naval personnel knowledgeable of the atomic project were minimal and as of 1943 included only three: Rear Admiral William R. Purnell (who sat on the Military Policy Committee) and two officers seconded from the Naval Ordinance Division: Commanders William Parsons (the designer of the uranium bomb) and Fred Ashworth.⁶⁷ The latter two acted as the 'weaponeers' for uranium and plutonium bomb missions, respectively. Commanding Admiral of the Pacific Fleet, Chester Nimitz and the Office of Naval Intelligence, including its Captain Zacharias, were not aware of the project. Additionally, with Groves claiming that decision on atomic weapon use was to be kept from the Joint Chiefs of Staff, Groves suggests that its Chairman, Admiral William Leahy, also may have had less than a full understanding. Since Office of Strategic Services (OSS) led by Major General William Donovan operated under the Joint Chiefs, the OSS would not have been informed of atomic project;
- (iii) State Department attempted to gain Japan's surrender without having to implement a disruptive demand that the Japanese monarchy be eliminated. The surrender of Fascist Italy in September 1943 was not "unconditional surrender." Led by Acting Secretary Joseph Grew ⁶⁸ (US Ambassador to Tokyo, 1932-1941), this included the Japanese-born, Eugene Dooman of State's Far Eastern office. After Byrnes was named Secretary on 3rd July the influence of Grew waned. But, control of the atomic weapons had

already extended around Grew: Deputy-Secretary of State for Economic Affairs, William L Clayton, a long-time political associate of FDR and Bernard Baruch, was named an Interim Committee member at its late-April founding.

The U.S.-British alliance had been anchored on the relationship between Roosevelt and Churchill, and it was British efforts that had first conceived and launched an atomic project. With Churchill replaced by Clement Atlee on 26th July 1945, and Roosevelt deceased, Truman's decisions were heavily influenced by James Byrnes, the 'assistant president under Roosevelt,' who Truman named as Secretary of State and would become President if Truman died in office.⁶⁹ Backing Byrnes was Bernard Baruch, who had key political contacts since heading of the War Industries Board of the United States in the First World War.

There were also other parties with interests similar to the émigré scientists that worked on the project. In August 1939, before the Second World War began, exiles Albert Einstein, Leo Szilard, Edward Teller, and Eugene Wigner with Alexander Sachs had started the project by making President Roosevelt aware of the potential military aspects of the fissioning of uranium. They did not end their interest or activity in 1939. Szilard, Teller and Wigner were intimately involved with the bomb's creation, and their circle had widened considerably since then. Others of influence included Frederick Lindemann chief advisor to Winston Churchill and coordinator of the British Atomic Project (Tube Alloys), Lewis Strauss assistant to the U.S. Secretary of the Navy (James Forrestal), and Felix Frankfurter of the Supreme Court. Perilously in the wings were spies Klaus Fuchs and Julius Rosenburg, among others, couriers of atomic information to Soviet Union, and those whose past involved in Soviet political activities in the United States, including Frank Oppenheimer (Robert Oppenheimer's brother). Many of their colleagues had survived by their wits in societies that were endemically hostile to them.

STIMSON GIVES THE AUTHORIZATION

It is highly unlikely that U.S. senior leadership who controlled America's emerging strategic air forces did not know how the target of the militarily critical plutonium attack was selected. Speculation by Air Force

Historians, with their failure to provide the targeting documentation on Nagasaki from the Joint Target Group undermines the credibility of the histories to date. Senior leadership that should have been aware of this data included: Army Chief George Marshall, the Manhattan Project Director Brigadier General Leslie Groves, the US Army Air Force top general 'Hap' Arnold, and the Target Committee members whose key leadership included J. Robert Oppenheimer and John Von Neuman in Los Alamos. Those commanding the 20th Air Force in the Marianas, including the head of that Army Air Force Strategic Command, Karl Spaatz, were likely to have been outside the group that selected targets.

Richard Rhodes, who in 1986 authored the most authoritative book to that date on the making of the bomb and its use, offered no details on the methodology used to select Nagasaki. He described Stimson at the post-European War Potsdam Conference on 23rd July 1945 inquiring of George Harrison of the New York Life Insurance Co (Alternate Chairman of the Interim Committee which reported into Stimson and advised Truman on the atomic bomb) for a target list that excluded "the particular place against which I have decided" (meaning Kyoto). Harrison replied saying that the targets were: "Hiroshima, Kokura and Niigata." The conclusion, supported by Vince Jones in his 1985 US Army-sponsored history of the project,⁷⁰ was that by the last full week in July, Nagasaki was not on a target list for evaluation and approval by senior US leaders.

Under-Secretary Grew had been the US Ambassador to Tokyo for ten crucial years immediately before Pearl Harbor and was "Acting Secretary" while Stettinius and Byrnes were out of Washington. Grew should have known of the significance of Nagasaki, but his memoirs published in the early 1952, ignore the topic. Observers report Nagasaki was placed onto the list by 25th July,⁷¹ while a memo to head of the Army Air Force, General Arnold, from Colonel John J. Stone on the 24th July shows it had been placed on the target list designated as a "major shipping and industrial center of Kyushu." How and why was it added?

THE KYOTO "STALKING HORSE" OBSCURES THE DECISION PROCESS

Rhodes asserts that the "Official Air Force

Historians 'speculate,' that LeMay's staff proposed it."⁷² That of course seems entirely disingenuous. It is clear from Groves memoirs as he describes the removal of Kyoto from the list that the targeting decisions emerged from the Target Committee, then in sequence to Groves, then Marshall, and then to Stimson.⁷³ Groves would have been fully aware of the selection process for the cities that his Target Committee selected for atomic attack. Groves, Marshall and Stimson, who were directly involved with the creation of the bomb and leading the war effort would not have then ceded their authority to LeMay for the most significant policy decision of the war.

The selection of targets was being undertaken within Target Committee of the Manhattan Project in coordination with the Joint Targeting Group of the 20th Air Force. After a two-month long battle with Groves, Stimson had finally gotten Kyoto off the list only by the late date of 24th July, while he was in Potsdam, under time pressure during the negotiations with Stalin. He had little time or choice other than to accept the list that came after Kyoto was removed. The Target Committee had initially placed Kyoto on the Target List in late May, and on 30th May Stimson began his argument with Groves. This lasted all the way to the Potsdam Conference on 21st July. Groves repeatedly stated to Stimson that the Target Committee's preference was for Kyoto. Grove's direct boss, General Marshall had been indifferent to keeping Kyoto as a target during the Stimson-Groves confrontation on 30th May. Finally, on 21st July, after Harrison and Groves had termed Kyoto "your pet city" in a cable to Stimson requesting again that Kyoto be on the list, Stimson replied, "Give name of place or alternate places, always excluding the particular place against which I have decided. My decision has been confirmed by highest authority."74 Stimson, thusly, turned the selection back to Groves and the Target Committee. By the last week of July Nagasaki appeared as a replacement for Kyoto on the list⁷⁵ given to General Arnold in Potsdam for relay back to Washington.

Stimson was a Harvard trained lawyer from New York City, had been a key prosecutor for the significant Southern District of New York, Secretary of War, Governor of the Philippines (1927-28), and Secretary of State (1929-1933). He had worked for Republican presidents at the highest levels for 40 years.

24 July 1945
MEMORANDUM FOR GENERAL ARNOLD
SUBJECT: Groves Project -
1. The following plan and schedule for initial attacks using special bombs have been worked out:
3. The first bonb (gun type) will be ready to drop between August 1 and 10 and plans are to drop it the first lay of good weather following readiness.
b. The following targets have been selected: Eiroshima, Kokura, Migata and Hagasaki.
 (1) Eiroshima (copulation 350,000) is an "Aray" sity; a major POE; has large QM and supply depots; has considerable industry and several small shipyards.
(2) Negesaki (population 210,000) is a major shipping and industrial center of Kyushu.
(3) Kokura (population 178,000) has one of the largest army arsenals and ordnance works; has the largest railroad shops on Kyushu; and has large munitions storage to the south.
(4) Mifgata (population 150,000) is an important industrial city, building machine tools, diesel engines, etc., and is a key port for shipping to the mainland.
c. All four cities are believed to contain large numbers of key Japanese industrialists and political figures who have sought refuge from major destroyed cities.

Colonel John Stone's memo to Arnold of July 24, 1945, designating the cities for attack by atomic bombing.

Despite being a Republican, Roosevelt appointed him as Secretary of War in July 1940 as it became clear that the U.S. was eventually going to become involved in the European conflict. He would not have turned the targeting decision over to General Curtis LeMay in the Marianas. LeMay rose to power as a courageous bomber pilot with an army commission from the Ohio State's ROTC Corps. LeMay had no previous war experience when the war began and had "little interest in theory or strategy."⁷⁶ He had not been involved in the Manhattan Project and had just been appointed as Chief of Staff to the Deputy to the head of Strategic

Bombing under Karl Spaatz, General Barney Giles.

Significantly, omitted by most histories of the target selection is the political reason Stimson refused to allow Kyoto to be targeted. Groves stated that Stimson believed "the decision should be governed by the historical position that the United States would occupy after the war," and that "anything that would tend in any war to damage this position would be unfortunate."77 Stimson's objection to Kyoto was based on his past role as Governor General of the Philippines. He had visited the city as Governor and was "very much impressed by its ancient culture," knowing it as "the ancient capital of Japan, a historical city, and one of great religious significance to the Japanese."78 But, as Governor General of the Philippines, the most Catholic country of Asia, it seems highly unlikely that he could not have been unaware of the historic Catholic city of Japan, that being Nagasaki.

General Leslie Groves, head of the Manhattan Project, wrote the orders that launched the attacks. He addressed them to General Karl Spaatz (head of the Strategic Air Forces) over the signature of General Thomas T Handy who was Acting Chief of Staff of the Army due to General Marshall's absence at the Potsdam Conference. The orders were for the 509th Composite Group of the 20th US Army Air Force to bomb Hiroshima, Kokura, Niigata or Nagasaki after about 3rd August 1945.⁷⁹ Prior to Groves heading the Manhattan Project, he had not flown an aircraft, been in Japan, or commanded a military unit in war.

Groves commanded this position because of the unusual structure of the Manhattan Project: All aspects of the Project reported into Groves, including design of the production process of fissile material, construction of those processes, design of the bomb, testing of the bomb, development of the delivery weapon, training of the crews, assembly of the weapons, and, apparently delivery of those weapons. Assisting him were: (i) Colonel Kenneth D. Nichols who oversaw Bomb Production through the Manhattan Engineering District ("MED"), and (ii) Brigadier General Thomas F. Farrell who ran Military Operations. Critically, Groves had personally selected his fellow New Yorker, J. Robert Oppenheimer, to head bomb development despite great misgivings from Army intelligence officers (including G-2's head Major General George Strong) who had been warned by the FBI Director in March 1943.⁸⁰

ROOSEVELT'S CREATION OF THE MANHATTAN PROJECT: MANHATTAN ENGINEERING DEPT ("MED")

In October 1941, following verification of the Niels Bohr-led British MAUD report that described the feasibility of building an atomic weapon from Uranium U-235, Vannevar Bush as head of the Office of Scientific Research & Development (OSRD), briefed Roosevelt and then US Vice President Henry Wallace. Roosevelt immediately formed a "Top Policy Committee" of political and military figures to review the atomic program. Not formally included on this committee were the scientists that were key to the bomb's creation. Members were: (i) Vice President of USA, Henry A. Wallace; (ii) Secretary of War, Harold

Organization Chart for Managing Bomb Development & Use: Manhattan Project, Military Policy Committee & Interim Committee. Note that Oppenheimer as head of Los Alamos reported directly into Groves [Nichols (1987), 15].



Stimson; (iii) Army Chief of Staff, General George Marshall; (iv) Director of the Office of Scientific Research & Development (OSRD), Vannevar Bush, and (v) Harvard President, James Conant, who also was head of the National Research Council (NRC) of the National Academy of Sciences (NAS). The OSRD had superseded the National Defense Research Committee (NSRD) which was administratively operating from 27th June 1940 to 28th June 1941, after which time it became advisory under Harvard's James Conant until it was dissolved in 1947.

The OSRD coordinated efforts to investigate the feasibility of an atomic weapon with a committee that consisted of: (i) Vannevar Bush, OSRD Chairman, (ii) General Styer, Head of Army Supply Service, (iii) James Conant, President of Harvard (iv) Lyman Briggs, of the Bureau of Standards, (v) Arthur H. Compton, Chair of the Physics Department of the University of Chicago [his older brother Karl T. Compton was president of MIT and would serve on the Interim Committee], (vi) Ernst Lawrence, of University of California at Berkeley, (vii) Eger Murphee, of Standard Oil of New Jersey, and (viii) Harold Urey, of Columbia University.⁸¹ Bush was authorized to proceed with research and evaluation, nothing further. In June 1942 after determining a weapon could be created a larger organization was needed and created that became known as the Manhattan Project.

CREATING THE MILITARY POLICY COMMITTEE TO OVERSEE MED

Three committees are associated with efforts to direct the creation of the Atomic weapons and their use: (i) Military Policy Committee, (ii) the Interim Committee, and (iii) the Target Committee. From 1942 the 'Military Policy Committee,' reporting to Stimson, oversaw the Manhattan Project and Leslie Groves as its director. The 'Interim Committee,' which was only set-up on 25th April 1945 after Truman approved Stimson's recommendation for its establishment, also reported into Stimson⁸² and dealt with U.S. weapons strategy. The Scientific Panel of the Interim Committee that included J. Robert Oppenheimer, Enrico Fermi, Arthur Compton of University of Chicago and Ernst Lawrence, were brought in as full members after the Interim Committee's second meeting on 14th May.⁸³ 'The third committee, the Target Committee reported to Groves with a first meeting 27th April chaired by Groves in Norstad's Pentagon conference room that "ratified the strategy of city targeting." Its second meeting was held in Oppenheimer's Los Alamos office 10-11th May.⁸⁴

The Military Policy Committee was created in order to supervise the US atomic effort on 1942 September 23rd at a meeting in the office of Secretary of War Stimson. Attending were Stimson, General George Marshall, Bush, Conant, General Somervell, General Styer, Admiral Purnell, Harvey Bundy, and Leslie Groves. The policy group then in existence (Wallace, Stimson and Marshall) could not spend the time or effort to supervise. A new policy committee on Groves recommendation was proposed that consisted of representatives of the OSRD, Army and Navy. Stimson approved this three-person "Military Policy Committee" to be chaired by Vannevar Bush, with James Conant as his alternate, along with Rear Admiral William R Purnell (former Chief of Staff for America's defeated Asiatic Fleet and subsequently Assistant Chief of Naval Operations for Materiel) and Lt General W.D. Styer (Head of the Army Services Supply). Once the Manhattan Project had been launched and funded, Roosevelt only as briefed on key developments and for discussions with senior domestic and international political figures.

In order to produce a weapon, vast amounts of money and material were needed. Production of factories was turned over to the Army Corps of Engineers, while Stone & Webster was hired without a bid as the contractor. Due to the New York City location of the head office at 270 Broadway in lower Manhattan, the atomic weapon program was named the Manhattan Engineering District (MED). Its \$2 billion budget was coordinated from there. In September 1942, Lesley Groves, born in Albany New York, was placed in charge of the entire project and given all responsibilities by Vannevar Bush who chaired the OSRD. Groves moved project headquarters from Manhattan to the new War Department Building in Washington D.C.

Until the Trinity Test of 16th July 1945, atomic weapons were only theoretical concerns. Other more pressing issues occupied the highest reaches of the US government to which General Marshall and Secretary

US ARMY AIR FORCES IN THE PACIFIC US ARMY STRATEGIC AIR FORCES IN THE PACIFIC AS OF 15 August 1945



20th US Army Air Force reports directly to Wash D.C., not through the commands of General MacArthur or Admiral Nimitz.

of War Stimson directed their energies. The Military Policy Committee which Vannevar Bush chaired often did not include Stimson and Marshall. But Groves did report to Marshall on key atomic weapon issues. On 17th December 1944, he confirmed to Marshall that by the end of 1945 (the next year) he would have 18 plutonium bombs of 5 kg each.⁸⁵ And, Groves also kept Marshall advised of Axis efforts: on 12th April 1945 after the Manhattan Project intelligence unit (Alsos Mission) located and confiscated 1,200 tons of uranium ore that Germany had held, he reported to Marshall that Germany would have no atomic bomb.⁸⁶

Earlier in September 1943, Marshall had initiated through Groves the Alsos Mission effort to track a possible German atomic project. But despite Vannevar Bush having raised with Roosevelt during the briefing on the MAUD report in October 1941 of a possible German atomic program, there was no one in the USA tracking German efforts for almost two years of war.⁸⁷ The Alsos Mission was only established in fall 1943 under Colonel Boris Pash, Chief of Counter-Intelligence for the Ninth Army Corps on the U.S. West Coast. Reporting into Groves, Colonel Pash had previously recommended Oppenheimer be "removed completely from the project."⁸⁸ Groves reassignment of Colonel Pash on Thanksgiving Day 1943 to the effort to investigate the unlikely existence of a German bomb effort⁸⁹ removed Pash from continuing his concerns over Robert Oppenheimer. British intelligence sources based on Niels Bohr's contacts to Lise Meitner at Lund University in Sweden and her contact to Otto Hanh in Berlin would have confirmed the lack of a German atomic weapon effort.

The Manhattan Project's first issues were how to design and produce the weapons, rather than plan their military use. Colonel Kenneth D. Nichols administered Manhattan Project production units, including Clinton (Oak Ridge), Hanford, Los

Alamos, and 10 area offices. International cooperation agreements were undertaken only with Britain and Canada, based upon the "Quebec Agreement" of 19th August 1943, where promises were made to share data, resources and weapons development.

USING ATOMIC WEAPONS

Admiral Leahy's memoirs published in the summer of 1949 termed the atomic weapon "barbarous" and of little use in defeat of Japan.⁹⁰ He had been Roosevelt's personal Chief of Staff in the War, then later Chairman of the Joint Chiefs of Staff in the Truman administration. Secretary of the Navy, James Forrestal, had questioned the use of the bomb for any reason. The U.S. Navy believed that "its blockade and airpower could force Japan to its knees without either invasion or an atomic bombing," and wished that the Japanese "postwar economy to recover quickly," believing that the Soviets "posed the real danger."91 But the Navy Group did not hold the decision-making power that determined if, when and where atomic weapons would be used. Those decisions originated in the Army Group. Further, Groves directly explained that for "security reasons" the decision to use the bomb was to be kept from the Joint Chiefs of Staff and the Combined Chiefs of Staff (which included Britain). Fleet Admiral Leahy, Chairman of the Joint Chiefs, had asserted as early as July 1944 that "Japan's surrender was inevitable and would be brought about by combined Naval and Air Force action."92

Henry Stimson, Secretary of War, with direct authority over those that created and deployed the weapons, also was reported to have criticized their use. But he clarified via a February 1947 article in Harpers Magazine entitled 'The Decision to Use the Bomb' that following the successful test on 16th July 1945 he gave order for their use against four cities, including Hiroshima and Nagasaki.⁹³ Stimson explained that "the detailed plans were brought to me by the military staff for approval." While Stimson specifically excluded the city of Kyoto as a target because it "had been the ancient capital of Japan and was a shrine of Japanese art and culture," in his 1947 article and in his 1948 publication On Active Service in Peace and War he makes no reference to Nagasaki having been the center of the Roman Catholic community in Japan,

to the long-repressed Urakami community, or to peace overtures coming through the Vatican. He gave no explanation for how Nagasaki was selected or the unique characteristics of the community.⁹⁴

The strategy to hit Nagasaki came through the Manhattan Project, which had a strategy and targeting structure parallel to that which controlled the strategic 20th Army Air Force (reporting directly to Arnold). Its chain of command to the 509th Composite Group, which would drop the bomb, was parallel and overlapping. The 509th Composite Group, was tasked with delivering atomic weapons and was attached to the 20th Army Air Force on Tinian Island in the Mariana Islands. Out of the Manhattan Project network came the "detailed plans" that were brought to Stimson for approval while he was in Potsdam in late July 1945.

TWENTIETH ARMY AIR FORCE & ITS XX AND XXI BOMBER COMMANDS

The 20th Army Air Force, in which were concentrated all of the new B-29s of the U.S. military as a global strike force, was established 4th April 1944 in Washington D.C. This air force was an independent military command and did not report through General Douglas Macarthur or Admiral Chester Nimitz, commanders of the army's Southwest Pacific Theater and the navy's Pacific Theater, respectively. This strategic air force was under the direct control of the Joint Chiefs of Staff, with Hap Arnold, Commanding General of all Army Air Forces, as their agent. By September 1944 the 20th Army Air Force was obtaining targets from the Joint Target Group in Washington D.C. The Joint Chiefs furnished the "unified air objectives," and the fleet and bombers were centrally deployed to whatever theater was in need. This structure was patterned off that of the US Navy, where the command of the Fleet was centralized under Commander-in-Chief US Fleet Admiral Ernest J. King who was the Navy member of the Joint Chief of Staff.95

Two Bomber Commands, with similar names were set up under the 20th Air Force: the XXth Bomber Command in India on 28th March 1944 and the XXIst Bomber Command on Saipan & Tinian after these islands were captured by 1st August 1944. The XXth Bomber Command proved ineffective against Japanese targets while it operated from Indian and

Julius Robert Oppenheimer: The Scientific Advisory panel of the Interim Committee, of which Oppenheimer was the dominant member, became full members of the Interim Committee on 14th May 1945.

<u>of the</u> <u>Interim Committee</u> <u>Monday, 14 May 1945, 10:00 A.M. - 12:30 P.M</u>.

PRESENT:

MEMBERS

Hon. Ralph A. Bard Dr. Vannevar Bush Hon. James F. Byrnes Hon. William L. Clayton Mr. Goorge L. Harrison, Acting Chairman (in the absence of the Secretary of Mar)

BY INVITATION

Maj. Gen. Leslie R. Groves

I. PANELS.

1. Scientific Panel.

It was agreed that the membership of the Scientific

Panel should be as follows:

Dr. Arthur E. Compton Dr. Ernest O. Lawrence Dr. 5: Robert Oppenheimer Dr. Enrico Fermi

It was agreed further that the Secretary of War

or Kr. Harrison, on his behalf, should write to these four scientists inviting them to become members of the Panel. In ling-with suggestions made by Dr. J. B. Conant and Dr. Vannevar Bush, it was the sense of the meeting that the Scientific Fanel should be free not only to discuss technical matters but also

• Nanjing • Hankou	Japan Tokyo Atomic bomb dropped on Hiroshima Atomic bomb dropped on Nagasaki (9 /	(6 August 1945) August 1945)
Battle for Ok	kinawa (1 April-21 lune 1945)	e o
Ryukyu Islands Taiwan	Ogasawara Islands Battle of Iojima (Iwojima; 19 February-17 Ma	••• Hawai
American invasic (9 January 1945) Luzon Philippines	n of Luzon Wake Island Saipan Tinian Battle for Saipan (15 June-9 July 1944)	1
Manila Battle of Leyte (23-26 October	Battle for Guam (21 July-10 August 1944) Gulf 1944) Eniwetok Matshall Islands	e 1944) PACIFIC

Tinian Captured 1 Aug 1944, becomes base for Aerial Bombardment of Japan

Chinese Airbases. Because of the loss of air fields in China during the Ichigo campaign in Spring-Summer 1944, the XX Bomber Command was moved 8 months later from India to the Marianas on 31st March 1945 and deactivated on 16th July 1945. The XXIst Bomber Group then operated all B-29s under the 20th Air Force from the Mariana Islands of Tinian, Saipan and Guam.

When General Curtis LeMay arrived in Guam and took over command of XXIst Bomber Group from General Hansell on 19th January 1945 he reported directly into General Arnold, just as he had done in India. However, because General Arnold had had his 4th heart attack on 17th January 1945 ⁹⁶ and LeMay was stationed in the Mariana Islands, Le May's link to Washington went through Lt General Barney Giles, Arnold's Deputy, and Lt Colonel Lauris Norstad, Chief of Staff of the 20th Air Force. Arnold had previously positioned Norstad in his Advisory Council at the young age of 35 in 1942, and as Arnold's protégé he directed the Allied Mediterranean Air Forces during the Italian Campaign of 1943-4.

Norstad was brought back to Washington as Chief of Staff for the strategic 20th Air Force in summer 1944 and was LeMay's key interface to Washington in Arnold's absence.⁹⁷ Though LeMay had discretion with regard to tactics and timing, the Committee of Operations Analysis in Washington DC selected bombing targets and, in each bomber command, there were Committees of Research Analysts to assist. Despite his 4th heart attack, by March 29th at a Press Conference in Washington, Arnold announced what was in for Japan: 1,000 bomber raids continuing the same tactics used against Tokyo where 75% of the city's "target sector" had been burned out.⁹⁸ There was no distance between what LeMay was implementing and what Washington D.C. was targeting.

Despite Stimson's expressed abhorrence of the area-bombing of cities, General LeMay continued the campaign of incendiary attacks against Japanese urban centers after the 9th March firebombing of Tokyo that killed 80-100,000. Between 14th May and 15th June there were 17 "maximum-effort" attacks that dropped ~75% of their tonnage (21,671 tons of 29,155) on urban areas. LeMay's 25th May attack on Tokyo by 464 B-29's, twice as many as the 9th March fire-bombing, burned out 16 square miles of Tokyo.⁹⁹ The orders were emanating from the Joint Chiefs Joint Target Group in

Washington, D.C.

The US Army Air Forces were re-organized on 16th July 1945, and a new US Army Strategic Air Force was created with Spaatz in command. This held the 509 Composite Bomber Group that bombed Hiroshima and Nagasaki. Transferred from Europe to head US Army Strategic Air Forces in the Pacific with its headquarters on Guam, Spaatz reported directly to General Arnold in Washington. Similarly, the Commanding General of the 15th Air Force in the Mediterranean, Nathan Twining, was transferred to Guam to relieve LeMay of command of the XXIst Bomber Group. This unit ceased to exist on 16th July 1945 when its operations were re-designated as the 20th Air Force. Doolittle's 8th Air Force was also transferred out from Europe. This gave General Spaatz control over two strategic air forces, the 20th and 8th, which were directly commanded by the generals that had led the air forces in victory over Germany. LeMay was made Chief of Staff to the new Deputy Commanding General (CG) of the Strategic Air Forces, Lt General Barney Giles, who was soon on Guam. The Joint Targeting Group reported into Giles.

TARGET COMMITTEE

The Target Committee's analysis of the methodology and ranking of their targets has not been disclosed after nearly 75 years of publications on the bombing. The scoring records and data certainly existed as demonstrated by the quality of the Joint Targeting Group's data on Fukuoka, Nagasaki's sister city on Kyushu. The Target Committee selected four cites based on the technical aspects of the delivery and detonation of the weapon, interacting with the 20th Air Force's Joint Targeting Group in Washington from which the XXI Bomber Command in the Mariana Islands obtained its targeting data. Nagasaki was slipped onto the bombing target list on 24th July in Potsdam through General Arnold's authority after Kyoto had been removed.¹⁰⁰ General Arnold's direct subordinate had controlled the Joint Target Group with which Grove's Target Committee interfaced.

As previously indicated the MED's committees included: (i) the 'Target Committee' set up by General Groves that held a first meeting 2nd May 1945 studying 17 targets;¹⁰¹ (ii) an 'Interim Committee, which Stimson had established to recommend strategic issues

that included whether and how atomic weapons would be used and how the technology might be controlled was operating by 9th May;¹⁰² and (iii) the 'Military Policy Committee,' which had been previously set up almost three years before in September 1942 to oversee the Manhattan Project with one representative each from the Army, Navy and Office of Science and Research Development which Vannevar Bush directed.¹⁰³ At the Target Committee level, the elegance of science met the horror of its use. It selected which of the next non-defended cities of Japan would be those to be destroyed by what Henry Stimson, Secretary of War, had informed Harry Truman on 10th April 1945 was "the most terrible weapon ever known in human history."

Groves had initially requested Marshall to designate individuals within the U.S. Army Air Force's Operations Planning Division (OPD) for this task, but Marshall shielded his organization, claiming that he didn't want "to bring to many people into this matter" and requested Groves take on this task within MED. Groves had not imagined that the "execution phases" of the project would be handled by MED. But, after consultation with General Arnold, Groves reported that "our most pressing job was to select bomb targets.¹⁰⁴

The 'Military Policy Committee,' which included Stimson, General Marshall, Bush, Conant, General Somervell, General Styer, Admiral Purnell and Harvey Bundy, ¹⁰⁵ had repeatedly discussed target criteria. These were "firmly established only after thorough discussions with Oppenheimer and his senior advisers at Los Alamos, and particularly with John von Neumann." ¹⁰⁶ The criteria for target selection stated that targets: (1) *should be those that would most adversely affect the will of the Japanese people to continue the war*, (2) should be of military significance as HQ cities, troop concentrations, or centers of production of military supplies, (3) should not have been previously damaged by other air raids, [and] (4) be large enough so that the damage would be confined within the city.¹⁰⁷

Groves then set a "special committee to recommend specific targets", which was named the 'Target Committee' with an initial meeting under his control on 27th April 1945¹⁰⁸ [Groves gives 2nd May]¹⁰⁹in Norstad's conference room in the Pentagon. The policy of city targeting was ratified. Attendance was balanced between the military and scientists. Groves opened with an emphasis on secrecy and a comment that the ports on the western side of Japan should be evaluated, as they were vital for Japan's communications with the Asian mainland. Only four targets were to be selected. Lauris Norstad, Chief of Staff Arnolds's 20th Air Force, indicated that any operational information, maps or data could be obtained through Hap Arnold's representatives, Dr J.C. Stearn and Colonel W.P. Fisher. Once the committee got underway, Brigadier General Thomas F. Farrell was given a free hand to run it. Members who Groves identified were:¹¹⁰

- 1. MED: Brig General, Thomas F. Farrell, Grove's Deputy for Military Operations MED;
- 2. MED: John von Neumann, Los Alamos scientist who escaped from Nazi Germany;
- 3. MED: Robert R. Wilson, Princeton Univ & head of MED's Research Division
- 4. MED: William G. Penney, Churchill's representative from Tube Alloy Project
- 5. Air Force, Arnold's office: US Army Air Force, Colonel, William P Fisher
- 6. Air Force: David M. Dennison, Nuclear Scientist, University of Michigan
- 7. Air Force, Arnold's office: Dr. Robert L Stearns, a civilian who conducted operational research for the air force. ¹¹¹

Head of MED Military Operations, Thomas Farrell constrained the selection criteria: (i) B-29 range was only 1,500 miles, (ii) visual bombing was essential so that the bombs could be aimed with certainty and their effects photographed, (iii) probable targets would be "urban or industrial Japanese areas" to be attacked between July and September 1945, (iv) each mission would have one primary and one secondary target.¹¹² A major problem was lack of knowledge about the explosive force of the bomb, because this determined the height of the bombs release and detonation. To maximize the killing power of the bomb, the potential size of the explosion needed to be calculated. Oppenheimer and von Neumann provided the calculations on May 14th. ¹¹³

Pretenses regarding precision targeting of military objectives were dropped. The bombing directives for the 20th Air Force (20th USAAF) that targeted cities were reviewed, which indicated that: The 20th Air Force is operating primarily to laying [sic] waste all the main Japanese cities, and that they do not propose to save

some important primary target for us if it interferes with the operation of the war from their point of view. ...The 20th Air Force is systematically bombing out the following cities with the prime purpose in mind of not leaving one stone lying on another: Tokyo, Yokohama, Nagoya, Osaka, Kyoto, Kobe, Yawata, & Nagasaki.¹¹⁴

The Target Committee also dropped any pretension regarding primarily targeting military objectives in its conclusions: (1) Aiming points would not be specified, which will be left to a later date when weather conditions were better known; (2) Industrial targets need not be pinpointed because in the target cities industrial targets were small and dispersed; (3) bombs to be dropped in city centers so that future bombs would not be needed. ¹¹⁵

Illustrating Oppenheimer's influence in the targeting process, the Target Committee then met on 10-11th May in Oppenheimer's office in Los Alamos, with the selection of five targets: Kyoto, Hiroshima, Yokohama, Kokura, & Niigata. Committee advisers were added to the discussions, who in addition to Oppenheimer, included Parsons (Los Alamos), Tolman (Caltech), Norman Ramsey (Los Alamos), Hans Bethe (Los Alamos), and Robert Brode (Los Alamos E3-Fusing Group). Oppenheimer took control of the meeting, planning and coordinating the discussion that included: (a) Height of detonation, (b) Weather, (c) "Gadget" jettisoning, (d) Status of Targets, (e) Psychological Factors in target selection, (f) Use against Military Objectives, (g) Radiological Effects, (h) Coordinated Air Operations, (i) Rehearsals, (j) Safety of Airplanes, (k) Coordination with XXIst Bomber Command. 116

A key issue was that Japanese cities were being firebombed out of existence. General LeMay calculated that the strategic bombing of Japan would be over in several months (by 1st January 1946) because the 20th AAF was running out of targets.¹¹⁷ The Target Committee, however, had the power to select cities that could be held in reserve for the Bomb. Yokohama had been invalidated as a target on 28th May when 454 B-29s in a daylight raid dropped 2,500 tons of incendiaries and burned out seven square miles of the city. Some Yokohama residents said "connections" with Americans and commercial families of Yokohama spared the remainder of the city, but on 1st June another raid finished off the city. ¹¹⁸ On May 30th Stimson is reported to have intervened to take Kyoto off the list when he forced Groves to deliver a report on the bombing prior to it going to Marshall and asked him what cities he planned to bomb. Groves stated Kyoto, and Stimson bluntly stated he did not want Kyoto bombed because it was a historical center of Japan. Then Stimson asked General Marshall to come into his office and told Marshall the same thing.¹¹⁹ With Kyoto and Yokohama off the list, the number of targeted cities had dropped to three: Hiroshima, Kokura, and Niigata. Another city was needed.

JOSEPH GREW, AMBASSADOR TO JAPAN & JAMES BYRNE, SECRETARY OF STATE

The conundrum faced by the Allies, as well as Japanese civilian leadership, was how to convince the fanatic Japanese military high command to surrender its extensive remaining forces in China, Southeast Asia and Japan before Japanese society was destroyed. Japan's military was built on a no-surrender doctrine, which had resulted in continuous suicidal defenses and deaths in the Aleutians, Saipan, the Philippines, Iwo Jima, and Okinawa, as well as kamikaze aircraft and the needless suicide-mission of the Imperial Navy's greatest battleship, the Yamato on 5th April 1945. According to reports of Robert Guillain in I Saw Tokyo Burning, US losses from Kamikaze's during the Okinawa campaign were significant: 16 ships were sunk and 185 damaged including 7 aircraft carriers.¹²⁰ Japan's military leaders envisioned a suicidal defense of the homeland by the Japanese people.

As former Ambassador to Japan and Acting Secretary of State in spring 1945, Joseph Grew led the 'Japan faction' in the State Department that supported retention of the Emperor as part of the strategy to end the war.¹²¹ He believed that if the Allies had made that position clear in May 1945 after the defeat of Germany, "the surrender-minded elements in the Government might well have been afforded a valid reason and the necessary strength to come to a clear-cut decision" to surrender.¹²² But as Japan's military leadership fantasied over 'national seppuku' and as proponents of 'absolute surrender' dominated Allied leadership, the inertia of total war, soon to be backed by atomic weapons, advanced.

Grew's close relationship to Secretary of War Stimson extended back to the Japanese seizure of Manchuria in 1931. As relations between the US and Japan deteriorated following its Manchuria invasion on 18th September 1931 and its attack in Shanghai on 28th January 1932, President Herbert Hoover had appointed Joseph Grew Ambassador to Japan on 6th June 1932 under Henry Stimson as Secretary of State. On Franklin Roosevelt's inauguration in March 1933, Roosevelt kept Grew (his Groton and Harvard classmate) in Tokyo.¹²³ Grew stayed as U.S. Ambassador to Japan for the critical period 1932 to 1941. Because of his extensive tenor in Tokyo and contacts, which included those to Japanese Foreign Minister Matsuoka Yosuke, of whom the German Ambassador Ott asserted "favored Grew more than any other ambassador,"124 and Peru's ambassador Dr. Ricardo Rivera Screiber, who warned Grew in early 1941 of a coming Japanese attack on Pearl Harbor, Acting Secretary of State Grew must have known of Nagasaki's unique character. The Catholic nations of Peru and Brazil held the largest Japanese populations in Latin America.

Repatriated from Japan in the summer of 1942, by 30th November 1944, he was acting as Secretary of State in the absence of the new Secretary of State Edward Stettinius, and working with his old boss, Henry Stimson, on the key issue confronting the U.S.: how to convince the Japan's Emperor and radical army leaders to end the war. Grew's relationship to Henry Stimson would have given him direct access as Stimson evaluated recommendations from the Target Committee. When James Byrne on 3rd July 1945 became Secretary of State, however, Grew's influence waned and that of the Byrne's New York City Democratic political ally, Bernard Baruch, grew. At the death of Roosevelt in April, Truman had automatically become the U.S. President. Based on the Presidential Succession Act of 1886, the next in line to succeed as President in 1945 was the U.S. Secretary of State. By 3rd July 1945 that was James Byrne, and Byrne took a substantially harder line against Japan and its emperor than had Grew.

From 1920 to 1945 Byrne had been a powerful political operator who was a central part of the coalition that put and kept the left-of-center Roosevelt administration in power: from South Carolina he connected the Democratic Party's 'Solid South' to the money in New York City that financed the Roosevelt and Truman election campaigns. After being named Director of the Office of War Mobilization on 27th May 1943, Byrnes became known as the "Assistant President," and was considered to be a potential VP candidate under Franklin Roosevelt in the November 1944 election. Backing him was his close political ally, Bernard Baruch, the Democratic Party fixer that in 1946 would become the first US representative to the United Nations Atomic Energy Commission. Key U.S. nuclear facilities, including the Savannah River Project, would be constructed in Byrne's state on the Georgia-South Carolina border as the Cold War unfolded.

By late July, after Stimson had demanded Kyoto be dropped from the target list (which Grew certainly would have encouraged) James Byrnes as U.S Secretary of State was in position to block any attempt by Grew to prevent Nagasaki from being added as its replacement. The city was slipped onto the list in late July 1945 while Harry Truman, James Byrnes and George Marshall were in Potsdam meeting the Soviets, with the recommendation apparently coming from Potsdam back to Washington. For the critical Potsdam Declaration of 26th July 1945 which demanded Japan surrender or face "prompt and utter destruction," Byrnes rejected Grew's recommendation that a clause guarantying the continuation of Japan's present imperial dynasty "under a constitutional monarchy" be included.125

TRINITY: ""EVEN NOW IT CAN'T BE TOLD."

Leslie Groves ranked number four in his class at West Point; he was in charge of building all the army installations in the United States as the Roosevelt administration prepared for world war; and Harold Stimson and George Marshall gave him the task of running the most important and expensive project in the history of the United States. Groves was smart, capable and politically astute. His 1962 memoir entitled *Now It Can Be Told* is filled with crisp and thorough details. One important item he did not discuss was how Nagasaki was put on the target list. This bureaucratic realist is clearly informing his astute readers: "Even now it can't be told." Scores of books written on the bombing omit the same issue.

If the Deputy Director of the Office of Naval



Intelligence, Captain Ellis Zacharias, is to be believed, a story can be sketched though that is greater than fiction, concerning Matsuoka Yosuke (松冈洋介), a Japanese boy that was raised by an American woman in Seattle and who graduated from the University of Oregon Law School. He grew up to be Foreign Minister of Imperial Japan. In the early 1940s he arranged treaties for his Emperor with Germany that created the Axis Powers in September 1940, with Vichy France that gave Japan access to Indochina in 1940, and with the Soviet Union in 1941 that gave Japan safety at its back door. He was also reported to be a Christian, and, his relative reported to be a Catholic official in Tokyo.

The subsequently unsubstantiated assertion from Zacharias concerning Matsuoka ties to the Catholic Church raises a perplexing issue. Was this assertion designed to discredit researchers reporting on the real attempts to end the Pacific War through the Vatican?

David Lu's extensive biography of 2002 does not support what Zacharias claimed in 1946. Zacharias writes that three years after Matsuoka had fallen from power (because of his desire to keep Japan from conflict with the United States), the US Army Air Force was fire-bombing Tokyo, the city that Zacharias reported was the diocese of Matsuoka's "brother." It was claimed that on behalf of the Emperor, his brother asked the Vatican, which had been in Allied hands since June 1944, to intervene urgently to halt the war. Zacharias reports that some of the pleas "were remarkable for the urgency with which they implored the Pope "to do something." Peace feelers kept coming in to Washington in amazingly large numbers and the most persistent came through the Vatican.¹²⁶

Major Darry's summary of the meetings held in Oppenheimer's office at Los Alamos from 10th to 11th May 1945 (see his memo from the Target Committee of 12th May 1945) specifically stated that "psychological factors were in the target selection were of great importance." The two psychological components were "(1) Obtaining the greatest psychological effect against Japan and (2) making initial use sufficiently spectacular for the importance of the weapon to be internationally recognized when publicity on it is released." ¹²⁷ Annihilating Urakami would certainly have that impact on those in the international community, specifically the Roman Catholic Church, that knew and valued that community. Accordingly, the first and only city to be subject to a plutonium attack would be the city that held the largest Roman Catholic Cathedral in Asia, whose persecuted Catholic community had hidden for two centuries underground during the Tokugawa Shogunate, and which had been a spiritual descendant of the greatest of the Jesuit missionaries. The plutonium that exploded not far from the Urakami Cathedral, but two miles from the city's center, would kill instantly nearly 10,000 Catholics in Nagasaki¹²⁸ of the 90,000 to 100,000 then in Japan.

NAGASAKI ATTACK ORDERED

In mid-July, Colonel Cecil E Combs, Deputy for Operations for the 20th Air Force, under orders from General Hap Arnold, set aside four cities, telling Le May not to bomb them as they have been selected for the atomic bomb. Those were: Hiroshima, Nagasaki, Kokura and Niigata.¹²⁹ The story goes that at the time Arnold was the only one of the senior command officers not to support using the nuclear weapon, because conventional bombing appeared sufficient. He felt that "Japan had already been weakened by blockade and beaten to her knees by bombardment." When the 20th & 8th Air Forces doubled their tonnage dropped on Japan beginning in August he felt that would force surrender because "Japan was on the verge of collapse." Eventually he came to agree that the bomb should be dropped due to *unspecified* "other considerations." ¹³⁰

Rhodes says that Air Force Historians speculate LeMay put Nagasaki on the list.¹³¹ Giovannitti states that the decision came from Hap Arnold,¹³² and indicates that with Kyoto taken off the list, that another city needed to be added no later than the 25th of July. While senior US officials were in Potsdam, including Hap Arnold, Harold Stimson, and George Marshall, on the 24th the Target Committee was meeting. It had been augmented to include Generals Spaatz, Eaker, and Craig. Giovannitti reported that Brigadier General Farrell recalls that a courier arrived from Potsdam with a recommendation from Hap Arnold that the new target city was to be Nagasaki. An "argument went on all day" over whether Nagasaki should be a target, and a number of officers "demurred from Arnold's recommendation of Nagasaki." It had been bombed before and that it would be "very difficult to measure the effects of the

atomic bomb in view of previous damage." Farrell objected that the city was not the size or shape for large bombs because it was long and narrow, sandwiched between two higher ranges of hills that would "deflect the blast effect of the bombs." After much discussion, however, General Handy as Acting Army Chief of Staff in Marshall's absence, included it on the target list.¹³³

Groves modified his original order from May to include Nagasaki being on target list, which then included Hiroshima, Kokura, Niigata, and Nagasaki. Spaatz was directed to commence with dropping bombs on the targets, as bombs were ready. Orders to drop a second bomb would not be needed. Paragraph #4 indicated that the order was "issued to [Spaatz] by the direction and with the approval of Secretary of War and the Chief of Staff." The name of the President of the United States was not mentioned.

Groves went to General Thomas Handy, Deputy Chief of Army Staff for George Marshall, for his signature, so the document could be delivered to Spaatz. But General Handy insisted on having written confirmation to proceed from Marshall in Potsdam. The request was sent to Marshall, and Marshall cabled authorization the following day on the 25th. Handy signed the order on 25th July 1945, which identified 4 target cities: Hiroshima, Kokura, Niigata, and Nagasaki, and gave it to Spaatz. Spaatz remembers that originally the orders for the bombing were to be *verbal*. But he told General Handy he needed something more specific and insisted on the orders being written. These provided the document trail back to Marshall.

IMPACT OF THE AIR WAR ON JAPAN

George Marshall's view of the Air War over Japan was similar to his view of the Air War on Germany: "Airpower alone was not sufficient to put the Japanese out of the war." General Hansell counters by describing the impact of the 20th Air Force: Japan accepted defeat while still possessing over 2.5 million combat-equipped troops and 9,000 airplanes capable of being equipped and flown as Kamikazes. No Allied troops were present on the soil of the Japanese home islands when Japan surrendered.¹³⁴

But Hansell's view of the efficacy of bombing alone does not appear to reflect adequately the situation. Two routes that Japanese leaders were counting on to facilitate peace negotiations were eliminated on 9th August 1945: The Soviet declaration of war and invasion of Manchuria ended any chance that Japan's leaders had for their hoped-for negotiated peace through Moscow. This has been widely reported. Not reported by analysts is that the obliteration of the unique Catholic community in Nagasaki would have sent a forbidding shockwave through any attempt at seeking peace through the Vatican.

For those focused on the impact of the air war, Hansell provides compelling testimony from Japanese leaders on the effectiveness of the bombing:

From Admiral Asami Nayano, Chief of Naval Staff and Supreme Naval Advisor to the Emperor: "If I were to give you one factor as the leading one that led to your victory, I would give you the Air Force."

From Vice Admiral Shigeru Fukudome, Chief of Staff Combined Fleet: "If I were to give you the decisive factors in the war in the order of their importance, I would place first the Air Force."

From Prince Fumimaro Konoye, Premier of Japan: "The determination to make peace was the prolonged bombing by the B-29s." ¹³⁵

The US Strategic Bombing Survey of Sept-Oct 1945 condemned the nuclear attacks and the downplayed the often-repeated alternative necessity of an Allied invasion:

It seems clear that even without the atomic bombing attacks, air supremacy over Japan could have exerted sufficient pressure to bring about unconditional surrender and obviate the need for invasion. Based upon a detailed investigation of all the facts, and supported by testimony of surviving Japanese leaders involved, it is this Survey's opinion that certainly prior to 1 December 1945, and in all probability prior to 1 November 1945 Japan would have surrendered even if the atomic bomb had not been dropped, even if Russia, had not entered the War, and even if no invasion had been planned or contemplated.¹³⁶

To force Japan from the war through aerial bombardment came with a heavy cost to the Japanese: The U.S. estimated that 175 square miles of urban area in 66 major Japanese cities were wiped out with civilian casualties in these attacks being 330,000 killed, 476,000 injured, and 9,200,000 rendered homeless. Total casualties from all causes are estimated at 900,000 deaths and 1,300,000 injured. If the Bombing Survey was proposing for future wars more of the same firebombing that the 20th Air Force had carried out

in the last, it was entering dangerous grounds. Such bombing ended the distinction between militaries and those "non-combatants" which supported them.

PURPOSE OF THE NAGASAKI ATTACK

Just what, in fact, had been the purpose of J. Robert Oppenheimer naming his Plutonium bomb test "Trinity," and then becoming involved in the use and targeting decisions that dropped that bomb on one of the most exquisite Roman Catholic communities in history? And, if the Allied strategic planners were envisioning a post-War world in which Japan would turn from an obsessive nationalism and militarism, why would they destroy the one community in Japan, the Urakami Catholics, that had demonstrated an extraordinary commitment through the centuries to an international vision of peace and goodwill?

That the annihilation of the Urakami Valley was not a randomly occurring event or one driven by organizational inertia can be deduced from the control of the Manhattan Project by the top levels of the leftof-center Roosevelt administration, the intellectual brilliance of the Project's leaders, its massive costs, and the profound and continuing silence from its public relations operatives and academic apologists with respect to Nagasaki's Catholic community and the need of nuclear weapons states to produce Plutonium continuously.

Since the left-wing of the Democratic Roosevelt administration had agreed at the Yalta Conference of February 1945 to provide American armaments and supplies to Soviet Union for its invasion of Manchuria, the often-articulated position that the atomic bombings were designed to "intimidate Stalin," seems pathetically wide of the mark.¹³⁷ Pointedly, the Director of the U.S. State Department's Office of Special Political Affairs, Alger Hiss, who was a part of the U.S. delegation to the Yalta Conference, was jailed in 1950 for complicity in Soviet espionage. That network supported Soviet entrance to the Pacific War and elimination of institutions that the Soviets opposed.

That leaves remaining motivations, not mutually exclusive, for the Nagasaki bombing: (i) myopically to force Japan's Emperor and civilian elites to confront Japan's fanatical army leadership to end the war, a process that was already ongoing, (ii) strategically as the first initiative of a Soviet post-war strategy to cripple institutions that had supported the rise of global rightist political movements in the 1920-30s, or (iii) tactically to ensure that western religious institutions could not offer a belief system to a Japan psychologically shattered by the loss of its Shinto-Militarist ideology in a maniacal war of expansion. Neither Groves, who had overall responsibility for the project and targeting, nor his questionable protégé Robert Oppenheimer, provide the answers.

The agendas of U.S. Naval and State Department groups differed from the Army-Air Force and political groups that dominated the early Truman administration. Under-Secretary of State Grew, Admiral Leahy, and Navy Secretary Forestall advocated an end to the war and creation of a stable Japan as an anchor in Northeast Asia. Captain Zacharias at ONI operated within this grouping. The Democratic Party's left-ofcenter Political Grouping represented by Byrnes, along with the Oppenheimer element within the Army-Air group with its Manhattan Project, demanded an unconditional surrender that rendered Japan unable to play a significant role in the post-war Asia.

The destruction of Nagasaki supported the strategy that a post-war world should be built by curtailing institutions, such as the Roman Catholic Church, that were viewed as having contributed to

Holy Mass at the destroyed Urakami Cathedral subsequent to bombing] https://commons.wikimedia.org/wiki/Category:Urakami_Cathedral#/media/ File:Memorial_service_at_the_Urakami_Roman_Cathoric_Cathedral.jpg



the ideological foundation to right-of-center states. The Soviets heavily repressed the Church as they remade the Roman Catholic nations of Eastern Europe including Poland, Czechoslovakia and Hungary, with tacit acceptance by the Roosevelt administration. This had been the only institution capable of facilitating normal social interaction between the disparate peoples of Germany, Italy and Japan as radical militarists seized their governments and launched war. The same could be said of the pro-Axis or neutral states of Spain, Vichy-France, Ireland, Argentina and Portugal. In the post-war environment the institution clearly was a target of Soviets and distained by left-of-center Social Democrats.

A subtler situation existed in Japan, which should be explored. Its leadership by July-August 1945 was highly concerned over the prospects of mass rejection of its Shinto ideology. Hirohito was reported to be greatly anxious over the potential destruction of Grand Shinto Shrine of Ise Jingu on the southeast coast by a domestic upheaval. Crippling the Urakami Catholic community effectively supported the policies of radical militarists who wanted a pure Japanese-only state. These groups historically had violently ejected foreign beliefs that could challenge Shinto-Buddhist domination. Tokugawa Ieyasu (德川家康) from 1600 to 1616 had consolidated political power while implementing moves against Catholic Kyushu; in 1622 mass repression commenced; in 1637-8 Japanese Catholics were crushed in the Shimabara Rebellion (島原の乱); and, from 1868 to 1873 the Meiji regime exiled or jailed Catholics who emerged in Nagasaki after centuries of hiding.

The bombing of Nagasaki in August 1945 accomplished the goals repeatedly sought by Japan's radical nationalists at a time when Allied objectives were to destroy fascist ideology and reconfigure the Axis States. In Urakami alone 7-8,500 Catholics were killed instantly, thousands more were injured or died of radiation poisoning. Catholic institutional infrastructure was shattered. Dr. Akizuki and Gordon Honeycombe report that of 280,000 people in Nagasaki, 30,000 people died in the first few minutes and "three times as many would die in the days, months and years to come." ¹³⁸

The psychological and physical shock of the United States following policies identical to the most radical domestic Japanese nationalists, would have severely impacted Japan's Roman Catholic Church, degrading its ability to play a more significant role in reconfiguring a new Post-War Japan. Political forces controlling the occupation may have preferred other networks. It is reported that the Occupation turned to Japanese organized crime (the Yakuza) to maintain order and control. Kyushu island, home of the Nagasaki Catholics, became the largest source of Yakuza members, including many renowned bosses in the Yamaguchi-gumi.¹³⁹

UNWILLINGNESS OF INTERNATIONAL MEDIA TO RECOGNIZE THE ATTACK

Commercial and academic publishers persist in shaping politically the Nagasaki narrative by ignoring, mis-reporting and manipulating related events. Often the U.S. military is maneuvered into providing political cover for the misguided bombing. Significantly contributing to the lack of clarity is the failure of the U.S. Army Air Force to release the extensive targeting descriptions their Joint Target Group undoubtedly prepared for the Nagasaki region, the failure of the Manhattan Project to release the Target Committee's scoring and methodology for the cities they evaluated, and the lack of clear photographs of weather conditions from The Big Stink flown by Lt Col James Hopkins that was supposed to accompany Bock's Car on its bombing runs over Kokura and Nagasaki. Ensuring that absolutely thorough targeting information existed for the mission, Charles Sweeney reported that, "We knew these cities as well as we knew our own hometowns, perhaps better. Every inch of them – streets, buildings, bridges, factories, rivers, lakes- was committed to our memories."140 He also added, "the criteria for target selection had been formulated at the highest levels of the Manhattan Project and the War Department." 141

The only journalist permitted on the mission was Leib Wolf Siew, a radical in Russia's 1905 Revolution, who had escaped to Boston, attended Harvard on a scholarship, and wrote for the *New York Times* as its science reporter under the pseudonym, 'William L. Laurence.' The head of the Manhattan Project on Tinian ("Alberta"), Dr. Norman Ramsey, felt that Siew/Laurence was the "right man to assist the United States government's effort to end the war by making 'a deliberate effort to make it [the atomic bomb] more

dramatic than it was'." Gordin (2007) reports that Siew "had his own agenda about how science was going to transform the world," and that the present war was one that he "billed as rooting out antiquated and pernicious ideologies." Siew rode to Nagasaki in *The Great Artiste*, the mission's technical/instrument plane, allowing him to gain a Pulitzer Prize in the process.¹⁴²

Contributing to the questionable accuracy of the stories of the Nagasaki mission are a series of doubtful events: (i) the report that Major Sweeney took off short 9.4% of the gasoline required for the flight due an inability to replace a faulty fuel pump despite over 800 other B-29s being based in Tinian;¹⁴³ (ii) the failure of Group Operations Officer Lt Col James Hopkins in the photographic plane (The Big Stink) to rendezvous with Sweeney and the instrument plane over Japan as the mission required: Sweeney identified Hopkins as working closely with Army Air force Group Intelligence;¹⁴⁴ and, (iii) the ejection of the mission photographic specialist (Dr. Robert Serber) from Hopkins' plane while on the runway due to "a lack of a parachute." With the plutonium bomb weighing 10,300 pounds (over 4 tons), the inability to use 600 gallons of fuel in the reserve tanks of Bock's Car would have meant that the top-secret plutonium bomb would need to be jettisoned if it could not be dropped on a target. And, the lack of the photographic plane being present at the time of the bombing and the absence of the photography specialist, meant that photographs of the explosion would be far less detailed than appropriate. These problematic issues were not consistent with a mission to utilize the most expensive weapon in history and one that would change history's course.¹⁴⁵

In 2006 "uncensored eyewitness dispatches" of the reportedly "legendary Pulitzer Prize-winning reporter" George Weller were published by Crown Publishers of New York under the rubric "First into Nagasaki." Infuriating stories of brutality in Japanese prisoner of war camps were presented but reports on Catholic Nagasaki were excluded. Weller arrogantly blamed Douglas MacArthur, who had nothing to do with developing or dropping the Nagasaki bomb, for censorship due to his "swollen ego" that kept "the United States and the rest of the world ignorant of the horrors of nuclear war." Weller claimed his dispatches from Nagasaki were "censored and destroyed by General MacArthur," yet Weller's own text edited and published by his son half a century later utterly ignored Urakami and its Catholics.¹⁴⁶ In the face of a major threat from the Soviet Union, Macarthur had to manage the potential political disaster caused by bombings in which he had no part. Weller and his New York publisher used Macarthur's common-sense policies of the immediate post-war occupation to cover their own censorship half a century later.

In a similar manner in 2008, Valerie Bodden shaped her narrative that targeted children. Despite countless texts that have described the Oppenheimernamed plutonium "Trinity" Test, she dropped the name from her description. The Trinity name, of course, is the single most obvious piece of public evidence that directly points to the relationship of Oppenheimer's network to the Nagasaki bombing. Bodden asserted that the bomb's target was the Mitsubishi Shipyards, one and a half miles away (2.5 km), but that it exploded "above the Urakami Cathedral." She terms the Cathedral "Japan's largest Roman Catholic Church." 147 It was actually the largest in the Far East and assuredly played a greater role than only servicing Nagasaki. Announcing that the Nagasaki death toll was only 40,000, she mentioned nothing concerning the 10,000 slain Roman Catholics, and compared that to 80,000 Japanese soldiers killed by the Soviets in its Manchurian invasion. Twenty-two years before, Richard Rhodes had reported significantly greater numbers of Nagasaki dead, with 70,000 by the end of 1945 and 140,000 over five years, a death-rate of 54% of the population. The survivors had described "unspeakable suffering."¹⁴⁸

The distortions put forward by the Western publishing houses do not help to establish viable weapons policies nor do they clarify the historical record. Modest adjustments to the absolute unconditional surrender policy for Japan which were offered to Italy in its 1943 surrender, and were soon to be confirmed to Japan, would have avoided the ghastly Nagasaki bombing that in hindsight influential observers argued contributed little to Japan's decision to surrender.¹⁴⁹

The costly downside of failing to view the Nagasaki bombing in its complete strategic significance can be assessed by its impact in the post-Pacific War era:

> (i) The inability to structure control of atomic weapons led the U.S. into nuclear confrontation with the Soviet Union and a

massive weapons build-up, the danger and costs of which continue with its Russian successor state. Though the Soviet Union was fatally damaged by the nuclear disaster at Chernobyl in 1986 and dissolved in five years later in 1991, nuclear weapons race continues with more diverse and less controlled participants.

(ii) The need for U.S. to engage militarily in Asia has been corrosive and difficult. Following the Soviet invasion of Manchuria and Korea in 1945, China converted into an intense U.S. rival, and the Korean and Vietnam Wars cost hundreds of thousands of lives, if not millions, while generating ongoing social schisms in the U.S. and the West.

The United States kept the Japanese emperor, built the Japanese economy, and made Japan into one of its key global allies, reviving it as a regional stabilizer and an economic super-power. These results might also have been attained by a less naïve and more astute end to the Pacific War on the part of those elites who had launched the war, those who ended it, and those who have reported on it. **RC**

NOTES

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- 2 In November 1952 during the Korean War, the Republican Party's Dwight Eisenhower defeated the Democratic Party's Adlai Stevenson, following Harry Truman's decision not to seek re-election. In early 1953, therefore, the officials from Democratic Party's Roosevelt-Truman regimes (from a party in power from 1932 over twenty years), began to be replaced by Republican officials. This directly impacted Oppenheimer's ability to maintain access to defense projects.
- 3 Goodchild (1980), J. Robert Oppenheimer, Shatterer of Worlds, 31, 32, 34, 36, 38, 222, 236, 261;
- 4 Bird and Sherwin (2006), American Prometheus: the triumph and tragedy of J. Robert Oppenheimer, 305.
- 5 Herken (2002), Brotherhood of the Bomb, 94-99, 102.
- 6 Rhodes (1985), The Making of the Atomic Bomb, 571-2. Rhodes report does not cite Groves' memoirs entitled Now it Can be Told (1962), for which the 1983 reprint by Da Capo Press of the Groves memoir does not contain this discussion. Rhodes cites a letter from Oppenheimer to Groves of Oct 20, 1962 (Rhodes, 833).
- 7 Bird and Sherwin (2006), 304, 645. Bird and Sherwin quote from the letter Rhodes uses of 20th Oct 1962, in JRO Papers Box 36 at Library of Congress. The Donne collection is dubious at best. Bird intimates that Oppenheimer's fascination with Donne's poetry may have begun in 1936 via his former lover, Jean Tatlock, who had

been involved in Soviet activities at Stanford and Berkeley. But Oppenheimer married Kitty Puening in late 1940 and had a son Peter born by her on 12th May 1941. By early 1943 he had been named head of bomb development, and by March 1943 he was resident as Director of the Los Alamos Laboratory. His lack of concern regarding security is demonstrated by him sleeping with Tatlock in June 1943 (Goodchild, 241) in his third year of marriage to Kitty. Tatlock was dead by suicide on 4th January 1944. Sometime between March 1944 when site selection began and October 1944 Oppenheimer came up with the name "Trinity" (Rhodes, 571); this was after Tatlock had died but before the birth of his second child by Kitty, daughter Toni on 7th December 1944. Both Rhodes and Bird/Sherwin report that Oppenheimer could not remember why he selected Trinity as the name for the test. Goodchild (1980, 130), as is typical of many reports on how the Trinity test was named, asserts without citation that it was from Donne's poetry.

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- 11 Ibid., 335 for the "significant report," 360-2 for US Navy ONI view of Suzuki and cabinet. Feis (1966), Atomic Bomb and the End of World War II, 15.
- 12 Ibid., 49, 200

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 We, the Japanese People: World War II and the origins of the Japanese constitution, 73.
- 14 While Forrestal's Diaries published in 1951 during Korean War report nothing on Zacharias or attempted peace negotiations through the Vatican, Zacharia's version of events is supported by (i) Tomoko Nagano's 2015 article in the Huffington Post and (ii) Todd Raffensperger's 2018 article in Warfare History Network. Further, Zacharias military record is provided by the Naval History and Heritage Command as cited under "Websites."
- 15 Akizuki (1981) Nagasaki, 52. Goldstein (1995) Rain of Ruin, 86 map.
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- 22 Ibid., 203, 258, 286-9, 299, 301, 306.
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- 28 Toland (1970) The Rising Sun, 998-1000; Zacharias, 360-1, states "We recognized the Navy's role in the peace movement and did everything possible to drive a deeper wedge between the two branches of the armed forces... The Japanese Navy was, in the propaganda sense, fighting on our side."
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- 30 Atomic Bombing of Hiroshima and Nagasaki, Facts and Details, (2019 Jan 12), Retrieved from: http://factsanddetails.com/asian/ ca67/sub429/item2517.html
- 31 Goldstein (1995, 86) provides a back & white photo, while a color video can be seen from the Facts & Details Website article entitled "Atomic Bombing of Hiroshima and Nagasaki" which has a YouTube video embedded at this URL at https://youtu.be/3qeYaMavxH8 (10:15m)
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- 33 U.S. Army Map Service (1945) Nagasaki. Griffith (2005), Atomic Bomb Damage of Nagasaki. Damage map of Nagasaki (1946). Nagasaki University Graduate School of Biomedical Sciences (2013) 'Physical Damages Caused by the Nagasaki Atomic Bombing.'
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- 52 Groves (1983), 230.
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- 54 Herken (2002), 71-73, 111-115, 125-6.
- 55 Crane (1993). Bombs, Cities & Civilians, 135
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- 59 Tillman (2010), Whirlwind: The Air War against Japan, 1942-1945, 93
- 60 Hansell (1986), Strategic Air War Over German and Japan, 228.
- 61 Ibid., 229
- 62 Ibid.
- 63 Hansell (1986), 229
- 64 Giovannitti & Freed (1965), Decision to Drop the Bomb, 67-8.
- 65 Groves (1962), 267.
- 66 Dallin (1948), Soviet Russia and the Far East, 196.
- 67 Christman (1998), Target Hiroshima, 108.
- 68 Marx (1971), 201.
- 69 Secretary of State is next in line after the VP. Truman did not have a VP as he succeeded to the Presidency from Vice President on the death of FDR. See (Giovannitti, page 26.)
- 70 Jones (1985), Manhattan: The Army and the Atomic Bomb, 530.
- 71 Ibid.
- 72 Rhodes (1986), 689
- 73 Groves (1983), Now It Can Be Told: The Story of the Manhattan Project, 272-275.
- 74 Jones (1985), 530.
- 75 Rhodes (1986), 689.
- 76 Crane, (1993), 125
- 77 Groves (1983), 274-5.
- 78 Ibid., 273-4.
- 79 Nichols (1987), Road to Trinity, 199.
- 80 Herken p355, FN84 (2002), 95, 99.
- 81 Nichols (1987), 31-3.
- 82 Rhodes (1985), 623-5, 620.
- 83 "Note of an Informal Meeting of the Interim Committee Monday 14 May 1945," Decision to Drop the Bomb, Truman Library.org (2019 Jan 9), Retrieved from: https://trumanlibrary.org/whistlestop/study_ collections/bomb/large/documents/index.php?documentdate=1945-05-14&documentid=37&pagenumber=1
- 84 Malloy (2010), 104.
- 85 Rhodes (1986), 560.

- 86 Rhodes (1986), 613
- 87 Rhodes (1986), 605. Through Bohr in Copenhagen and Meitner in Sweden, it is likely that the Allies knew via Otto Hahn and Werner Heisenberg in Germany that Germany had no program for building atomic weapons and that their key scientists would not assist. Why else would the US launch a break-neck program of the highest strategic importance, while failing to have a formal unit tracking its adversaries? Though the Manhattan Project (MED) was to be the central organization for the Allies bomb development, that MED did not have an intelligence unit tracking Germany suggests that Britain may have managed the wartime, Hahn-Meitner (Germany to Sweden) connection.
- 88 Goodchild (1985), 87.
- 89 Herken (2002), 112.
- 90 Leahy (1950), I Was There, the Personal Story of the Chief of Staff to Presidents Roosevelt and Truman based on His Notes and Diaries Made at the Time, 441
- 91 LaFeber (1997), The Clash: US-Japanese Relations throughout History, 245.
- 92 Groves (1983), 272
- 93 Stimson (1948), On Active Service in Peace and War, 625
- 94 Stimson's Chapter 23, "The Atomic Bomb and the Surrender of Japan", does not discuss the rational for the Nagasaki bomb.
- 95 Hansell (1986), Strategic Air War Against Germany & Japan, 158.
- 96 Crane (1993), 124.
- 97 Wolk (2010), 96
- 98 Wolk, 127
- 99 Rhodes (1986), 640.
- 100 Giovanni and Freed (1965), The Decision to Drop the Bomb, 243
- 101 Rhodes (1986) 626-8, 836.
- 102 "Notes of the Meeting of the Interim Committee May 9, 1945," The Decision to Drop the Bomb, TrumanLibrary.org, (2019 Jan). Retrieved from https://trumanlibrary.org/whistlestop/study_ collections/bomb/large/
- 103 Groves and the MED, https://www.osti.gov/opennet/manhattanproject-history/Events/1942/groves_med.htm
- 104 Groves (1983), 266-267.
- 105 Groves, 23
- 106 Groves, 267
- 107 Groves, 267.
- 108 Malloy (2008), 104. Groves (1983), 268
- 109 Groves (1983), 268.
- 110 Rhodes (1986), 626, Rhodes indicates the date was 2 days after the 25th April meeting with Truman
- 111 Some authors claim "Dr. Stearns" may have been Dr. Joyce C Stearns, Director of the Metallurgical Laboratory at the University of Chicago, but the reference to Stearn certainly is the individual who worked with Brig General Lauris Norstad in selecting targets for bombing by the 20th Air Force. See: (i) Target Committee Memo of 12 May 1945 prepared by Major J.A. Darry and Dr. N.F. Ramsey; and (2) "Notes on Initial Meeting of the Target Committee of 27 April 1945" prepared by Major Darry on 2nd May 1945. Page 5 lists 7 target cities including Nagasaki. Item #2 of memo states, "General Norstad informed the group that the facilities of the 20th Air Force would be made available to whatever degree necessary through Colonel Fisher and Dr. Stearns in providing related data, operational analyses, maps, information, and target data." On 28 April 1945 Norstad sent a memo to the Director, Joint Target Group (who has gone unnamed) indicating 17 possible targets with data furnished no later than 5th May. Target selection was done under Norstad in the Joint Target Group.

- 112 Rhodes (1985), 626.
- 113 Groves (1983), 269.
- 114 Rhodes (1985), 627.
- 115 Groves, 267
- 116 Rhodes (1985), 630-1
- 117 The Air Force leaders seemed not to understand the power of the weapons they put in motion. When LeMay landed in Yokohama to help with the surrender efforts he was amazed at the "unpopulated wilderness" his bombers had created. (Crane, 144)
- 118 Kennett (1982), History of Strategic Bombing,171.
- 119 Rhodes (1986), 640-1.
- 120 Guillain (1981), I Saw Tokyo Burning, 208.
- 121 Bix (2000), Hirohito and the Making of Modern Japan, 498.
- 122 Feis (1966), 179; Marx (1970), 201.
- 123 Born in Boston Massachusetts and married into the prestigious Cabot and Perry families, Joseph Grew's influence within American elites was furthered by his attendance at the Groton School and Harvard where in both he was two years ahead of Franklin Roosevelt. After joining the U.S. State Department on graduation from Harvard, by 1917 he was an aide in the US Embassy in Berlin as the US and Imperial Germany declared war. At the War's end he joined the U.S. Commission to the Versailles Peace Conference as its secretary, and on 16th April 1924 he was appointed Grew Under Secretary of State where he helped to establish US Foreign Service.
- 124 Lu (2002), 217-8, 234.
- 125 Bix (2000), 498, 500
- 126 Zacharias (1946), 364.
- 127 "Summary of Target Committee Meetings on 10 and 11 May, 1945," J. A. Darry to Leslie R. Groves, May 12, 1945. Vertical File. Atomic Bomb-Yale University Documents. (2019 Jan 18) Harry Truman Library
- 128 "Mayor Okada Jukichi's Report to the Emperor," Nagasaki Atomic Bomb Damage Records, Nagasaki National Peace Memorial hall for the Atomic Bomb Victims. (2019 Jan 9), Retrieved from https://www. peace-nagasaki.go.jp/abombrecords/b020202.html
- 129 Hansell (1986), 253.
- 130 Hansell (1986), 253.
- 131 Rhodes (1986), 689.
- 132 Giovannitti (1965), 243.
- 133 Giovannitti (1965), 247-9
- 134 Hansell (1986), 256.
- 135 Hansell (1986), 256.
- 136 Hansell (1986), 257.
- 137 Alger Hiss, who was jailed for three and a half years for perjury with respect to his relationship to Stalinist intelligence operations, was Director of the State Department's Office of Special Political Affairs and member at the Yalta Conference of the delegation headed by U.S. Secretary of State Edward Stettinius.
- 138 Akizuki (1981), 11, 52.
- 139 Yakuza (2019 Jan), Retrieved from: https://en.wikipedia.org/wiki/ Yakuza
- 140 Sweeney (1997), 194.
- 141 Sweeney (1997), 148.
- 142 Gordin (2008), Five Days in August, 109-111
- 143 Gordin (2008), 103.
- 144 Sweeney (1995), 150-1, 197-199
- 145 Sweeney (1997), ix, 150,160, 197-9, 200, 204
- 146 Weller (2006), ix
- 147 Bodden (2008), Days of Change, the Bombing of Hiroshima and Nagasaki, 16-20, 30-2.
- 148 Rhodes, 741-2.
- 149 Expressing this view are Zacharias (1946, 387-8), Paul Hamm (2011,

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