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The Critical Mass of Language: Post-Trinity Representation

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If the radiance of a thousand suns
were to burst into the sky,
that would be like
the splendor of the Mighty One—
I am become Death, the shatterer of worlds.
—Bhagavad-Gita

It lighted every peak, crevasse and ridge of the nearby mountain range with a clarity and beauty that cannot be described but must be seen to be imagined. It was that beauty the great poets dream about but describe most poorly and inadequately.
—Brig. Gen. Thomas J. Farrell, Trinity test eyewitness account

Now we are all sons of bitches.
—Kenneth Tompkins Bainbridge, Trinity test eyewitness account

As one story goes, J. Robert Oppenheimer, the director of the Manhattan Project, was so engrossed in Hindu mythology that he named the first atomic bomb test (Alamagordo, NM, July 16, 1945) "Trinity" after three of the most prominent deities in the religion: Brahma the Creator, Vishnu the Preserver, and Shiva the Destroyer, and spoke (or thought) the above lines from the *Bhagavad-Gita* immediately after the explosion. James A. Hijiya, for one, has argued extensively for the influence of Hindu poetry and ethoi upon Oppenheimer in the time previous to Trinity, even suggesting that an analysis of said literature can help "to answer the question of why Hiroshima and

Nagasaki were destroyed." Hijiya explains: "without the inspiration of the *Gita*, Oppenheimer might not have been able or willing to direct Los Alamos. Without Oppenheimer's skilled, determined direction, Los Alamos might not have produced an atomic bomb in time to be used on Japan" (Hijiya 126). Through Oppenheimer, the bomb becomes not merely a physical, technological entity, but a *poetic* creation, a fusion of science, morals, and aesthetics.

Oppenheimer's citation of the *Gita* has, in the years since Trinity, become perhaps the most well-known cultural moment of the Manhattan Project. As early as the late 60s, Hijiya notes, his quotation had attained "legendary" status—some children learned it in elementary school, and it has given rise to the titles of at least two books, an article, and a documentary (Hijiya 126). In this capacity, it also serves to make Trinity itself a legendary occurrence of sorts, an event closely related to, if not outright heralding, the end of the world. Through this study of several other accounts of eyewitnesses to the Trinity test, as well as the reactions of two authors—William Faulkner and Richard Powers—and multiple critics to the birth of the bomb years afterward, I hope to examine several variations on a very simple question: where do we go after Trinity? How does literature attempt not only to depict something that, for all intents and purposes, has never been seen before, and—more importantly—how does this affect what we already know about representation? I want to contend, through the examples I am about to present, that what is at issue in post-Trinity representation is not necessarily the destructive power or the unprecedented magnitude of the nuclear explosion, but the possibility of allowing it to make all other human concerns obsolete, not the potential of destruction, but of forgetting.

Oppenheimer was not the only one to find mythical valences in the Trinity explosion. Other witnesses' accounts of the test tend toward not only the expressions of awe, amazement, and horror that we generally associate with nuclear weapons, but also language of religious and poetic transport. Trinity eyewitness rhetoric ranges from the terse and even-handed (Roger Serber's "the grandeur and magnitude of the phenomenon were completely breath-taking") to the almost hallucinatory—Thomas Farrell, perhaps the most quoted Trinity witness, later wrote: "the strong, sustained, awesome roar… warned of doomsday and made us feel that we puny things were blasphemous to dare

tamper with the forces heretofore reserved to The Almighty."[i] Spencer Weart, in *Nuclear Fear*, states that it seems to readers today that the Trinity witnesses "had seen something beyond the mortal realm… [William L.] Laurence believed that he and Oppenheimer and probably many others there had shared a profound religious experience. He said later that witnessing the explosion was 'like being present at the moment of creation when God said, 'Let there be light,'' or indeed like seeing the Second Coming of Christ" (Weart 101). Even the official War Department release detailing the event claimed that it heralded "man's entrance into a new physical world." Trinity becomes, in these accounts, a simultaneously scientific and spiritual event; splitting the atom is made congruent with cracking open the natural, divine order of the world. Moreover, David Tietge theorizes in *Flash Effect* that, while Trinity invoked "new hopes and anxieties" in the minds of its viewers, it also "compounded old fears in the minds of scientists and leaders alike, evoking ancient dread in the Apocalypse and the darkness it would bring upon humanity" (Tietge 149).

The device that was exploded during the Trinity test was a plutonium implosion bomb with the same design as Fat Man, the bomb later dropped on Nagasaki. The heart of the bomb was a 150 cm sphere, with electronics and other equipment mounted externally. The explosion it produced was equivalent to roughly 20 kilotons (20,000 tons) of TNT, and left a crater of radioactive glass ("trinitite") on the desert floor 3 meters deep and 330 meters wide. The Trinity engineers nicknamed the device "the Gadget." The name is apt; the Gadget contradicts the stereotype of the nuclear device hidden by a sleek, lethal casing; no brushed steel and LED monitors here, not even the mute, smooth brutality of Little Boy and Fat Man. In its partially assembled form (as it is depicted in its most famous pictorial representation, fig. 1), the Gadget appears as an enormous steel sphere crisscrossed by wires, tubes, and hoses, and festooned with countless anonymous and vaguely sinister protuberances. There is, moreover, something inscrutably and unidentifiably *off* about the Gadget, something that unsettles the mind; there are too many wires, too many uneven surfaces, even the vague assertion of flame and char in its non-homogenous surface—too much chaos, not enough order. Tietge compares the Gadget's schematic to

> a forgotten talisman, or a pendant used in some pagan religion to ward off evil by protecting its wearer, something that Indiana Jones might be searching for… [it] is reminiscent of a time when humanity considered itself the center of the universe, the place around which all else revolved—a time before the disturbing revelations in science had tainted our rational faith and humbled us into realizing we were only one minute particle in a much, much larger scheme (Tietge 153).

The potential human damage of the bomb, which for Tietge can be adumbrated in its appearance, both suggests and exceeds very old ideas of apocalyptic destruction; it de- and re-mystifies the idea of the end of the world by positing a vehemently artificial agent of that destruction (the Gadget) for the first time in history, while at the same time insisting upon the incapacity of the human mind to encompass its origins and effect. For the first time, humanity faced the possibility of global annihilation by forces of its own making, yet those forces remained, to the majority of the public, inscrutable, opaque, the domain of a small cadre of experts. In short, Trinity brought back the apocalypse (if it was ever gone), and that apocalypse was, to those who viewed the explosion as well as those who heard about it later, both unprecedented and all too familiar.

The stakes of Trinity are thus high not only in both moral and scientific (and even spiritual) terms, but also, significantly, in *linguistic* terms. Farrell saw in the mushroom cloud "that beauty the great poets dream about but describe most poorly and inadequately," and asserted that "words are inadequate tools for the job of acquainting those not present with the physical, mental and psychological effects. It had to be witnessed to be realized." While Stephen Hilgartner, Richard C. Bell, and Rory O'Connor, in *Nukespeak*, insist that "in the thirty-six years since the atomic bombings of Hiroshima and Nagasaki, a new language has evolved…the language of nuclear development, a term we use to include the development of both nuclear weapons and nuclear power," the accounts I have listed here seem to suggest that nuclear technology (and the possibility of nuclear war) invoke very basic and inherent problems of *referentiality* (Hilgartner et al viii). Specifically, it seems that any prenuclear mimetic pattern becomes insufficient after Trinity (and the bombings of Hiroshima and Nagasaki soon afterward); words are insufficient tools to address the issues raised by the possibility

of atomic annihilation and, perhaps, insufficient to address what atomic annihilation even *looks* like. Tietge theorizes that the linguistic rupture suggested by the Trinity test lies in its "sheer uniqueness." In contrast to the "familiar and recognizable" symbology of a prenuclear world filled with primarily identifiable and distinct images, "the atomic explosions at Los Alamos and Hiroshima, conversely, were totally new, totally foreign, and totally terrifying, and an equally new symbolic reaction was fostered" (Tietge 150). It may be that a completely novel, completely unprecedented, scientific development requires a new vocabulary to address it (certainly scientific progress requires new *technical* language to address itself), but the language surrounding Trinity seems to be distinctly *poetic* in nature—this breakthrough, this nuclear birth, is an event that defies not only mimetic replication in general, but literary description in particular. The bomb requires symbologies, but not any symbologies that we can parse or internalize; any "nuclear poetics" must necessarily be incomprehensible, defamiliarized, unreadable.

However, there is a distinct tendency among post-World War II writers to regard the bomb as something that has not merely transformed, but somehow slain language, desiccated culture, and left the whole business to rot. Five and a half years after Trinity, William Faulkner was accepting the Nobel Prize for literature in Stockholm. Though he never directly mentions the bomb or even the then-burgeoning Cold War, his words have been read almost universally as having direct relevance to the writer's task in the age of nuclear warfare:

> Our tragedy today is a general and universal physical fear so long sustained by now that we can even bear it. There are no longer problems of the spirit. There is only one question: When will I be blown up? Because of this, the young man or woman writing today has forgotten the problems of the human heart in conflict with itself which alone can make good writing because only that is worth writing about, worth the agony and the sweat. (Faulkner 119)

Faulkner suggests that the indivisible units of literary merit, the "problems" and "conflicts" of the spirit, have been fractured, obscured, even shattered in the same manner and by the same token that the atom itself has been split. For Faulkner, nuclear war is antithetical to the literary spirit; again, we see the vexed relationship of the bomb and the poem, their simultaneous symbiosis and polarity.[ii] Faulkner is not alone among literary figures in this assessment. Wilson Harris, for instance, has placed the bomb within a

spectrum of technologies that are "fraught with ambiguity in [their] innermost content[s]," replete with both "beauty" and "danger," yet remaining "dense within a civilization that is still blind to an innermost incandescence of evolving and changing alphabet of the psyche" (Harris 244). The bomb is, here, if not antagonistic to literary production in general, at least a contentious entity, difficult to encompass with the written word.[iii]

Given the fixed point of ontological contradiction and linguistic self-annihilation that nuclear poetics revolves around, then, it seems altogether more convenient to simply gloss the bomb, to regard it as a universally malevolent entity that swallows all energies directed toward it, and thus "write around" the problem.[iv] Spencer Weart, for instance, has noted that most fiction writers who dealt with nuclear themes post-Trinity "spoke only vaguely about how the patterns of civilization might be encouraging and organizing destructive forces. Many settled for depicting an authority as a mad scientist, which linked reactor and war themes but sidestepped real social questions."[v] Our urge is simply to demonize the bomb; it represents apocalyptic menace; words slide effortlessly off its frictionless surface; it is consigned to the bleak, blank places in literary representation—the dystopian novel and the black comedy.[vi]

I wish to excavate this notion of "talking around" the bomb in reference to the Manhattan Project in particular. The invisible elephant in the room at Los Alamos in the mid-40s was the notion of human morality. Oppenheimer told his engineers in November 1945: "if you are a scientist you cannot stop such a thing… If you are a scientist you believe… that it is good to turn over to mankind at large the greatest possible power to control the world and to deal with it according to its lights and values" (qtd. in Hijiya 137). The authority here rests with "mankind," not the scientists who grant power to that indiscriminate, faceless aggregate; yet Oppenheimer himself has been repeatedly criticized for his lack of attention to the potential human costs of his theoretically alienated and innocent actions.[vii] Hijiya writes:

> Despite announcing after Hiroshima that he had blood on his hands and that Manhattan Project scientists had known sin, Oppenheimer did not seem to experience profound remorse… Oppenheimer's sorrow, such as it was, seems to have been only half-hearted and occasional. (Hijiya 158)

Oppenheimer did not see himself as immoral or even amoral. He saw the issue of morals,

at least insofar as they applied to basic life-or-death issues, as ancillary to science. Not for him the idealistic statements of duty, responsibility, and obligation of the politicians and philosophers of the day.[viii] He repeatedly emphasized his position as an agent, not an author: "I was not in a policymaking position at Los Alamos. I would have done anything that I was asked to do… if I had thought it was technically feasible" (qtd. in Hijiya 140). Oppenheimer might have believed that he had been untrue to some variety of moral code as a human being, but such concerns did not apply to him as a scientist; rather, the only morality, if it can be called such, known by the scientist is *to perform the role of a scientist*.[ix]

The problematic aspect (perhaps only one of many problematic aspects) of this self-exemption from moral concerns is that the bomb seems to be, socially if not literally, an *automatically moral* object. In a manner that becomes extraordinarily familiar in the post-nuclear age, James Child insists, in *Nuclear War: The Moral Dimension* that "a key part of [the nuclear] perspective is moral in nature... Moral issues are not only important, they are absolutely central" (Child 3).[x] However, Child's ire is, in truth, directed more toward the vindictive American mindset during wartime than the bomb itself; the bomb, and even the creation of the bomb, stand in metonymically for a fully-formed matrix of contextual woes. In short, Child does not make claims about the bomb, or even, in the strictest sense, claims about nuclear technology; he makes claims about human tendencies. Tietge addresses the issue somewhat more directly:

> science has profoundly affected not only the material changes the American language has undergone but also the *spiritual* nature of our social consciousness. One might view these as complementary poles—whereas improvements in the state of human existence had undoubtedly come about as a result of science, so too had this reality changed our views of our relationship to the earth and the heavens (Tietge 47)

Scientific developments, for Tietge, tend to create (and even, to some extent, come to be created by) spiritual developments. Through this view, however, Trinity becomes not a spiritual event *in itself*, but a scientific event that *inspires* a spiritual event. The bomb itself is not "spiritual"; the witnesses' interpretations of it are. The *bomb itself*, then, is not moral, has no spiritual bearing, is not a self-contained philosophical unit. If we see the Book of Revelations in the Gadget's schematic, in other words, it is not due to any

characteristic of the Gadget itself, but rather a function of shared sources of interpretation and anxiety—Harris' 'alphabet of the psyche.'

What Oppenheimer and his fellow Project engineers did, in effect, was turn themselves into the bomb, into the actors, beyond all notion of morality, who would carry the fire to mankind. In an interview with Dartmouth professor Joseph J. Ermenc, Lew Kowarski, a French physicist, stated: "I am reasonably certain that the leading [Project] scientists were interested only in scientific achievement… One thing that I do not believe in the least, and never did, is that they had moral scruples" (Ermenc 184). What all of this adds up to is that Oppenheimer's manner of creating the social category of the scientist (and the mythological category of the bomb) is a means of excluding contrary discourses, talking past, in effect, any complications. It posits a realm exempt from ostensibly universal laws, whether social, moral, or linguistic, a realm where conflicts can not only be ignored, but made completely *inapplicable*.

I want to delineate the boundaries of this empty space by addressing the intersection of atomic referentiality and personal identity: how does the atomic tendency toward self-exemption from moral or social concerns translate into discursive formations of, for example, racial identity, where self-inclusion within a number of set categories is essential to self-image? On the surface, there is nothing distinctly racial about the bomb or the Manhattan Project.[xi] Richard Rhodes, the author of what is certainly the most well-known study of the project, *The Making of the Atomic Bomb*, asked, in "The Atomic Bomb in the Second World War," "whether or not people died at Hiroshima and Nagasaki depended not on their identities—whether combatants or noncombatants, Korean forced laborers, American prisoners of war, pregnant women, children, grandmothers, newborn babies or Shinto priests—but merely on the accident of their distance from ground zero that day" (qtd in Kelly 28). If the bomb is racial, Rhodes suggests, it is racial by "accident."

The claim is difficult to contradict; the same amount of radiation will kill a human being of any race, color, or creed; the bomb seems to be the ultimate raceless device. However, as Child states, there are distinctly racial undertones to the rhetoric surrounding the *use* of the bomb: "there is in our attitude toward the comparison of nuclear war with World War II, and with all the cataclysms which went before it, more than a little

ethnocentrism. Nuclear war means the infliction of millions of deaths upon *us*—Americans—upon *our cities* and *our people*" (Child 44). Child sees nuclear war as an ethnological wake-up call for Anglo-Americans, a cataclysmic event that brings its audience in line with a previously invisible panoply of distinctly racial suffering; for the first time, he states, white Americans are faced with the same "omnipresent danger of violent death, or the wrenching dislocation of their ordinary lives, or both" that a history of oppression entails to other races (Child 46). It seems evident, then, that the bomb simultaneously elides racial valences in its capacity as an inanimate weapon with no racial "mind" of its own and accrues those valences through the necessity of its deployment by (racialized) individuals. However, I would like to nuance this argument by claiming that, just as the rationality, anonymity, and teleological necessity of a life of science permitted Oppenheimer and his contemporaries to "talk past" morality, the bomb gives us a way of "talking past" race. To make this claim, I turn finally to fiction, and specifically to Richard Powers' *The Time of Our Singing*, which fuses racial and nuclear anxieties in one narrative.

On its most basic level, Powers' novel concerns itself with the life stories of Jonah, Joseph, and Ruth, the children of David Strom, a Jewish German physicist, and Delia Daley, an African-American concert singer. All three children possess both different skin tones and different perspectives on their racial position in the world. As Jonah follows (and exceeds) his mother's vocation as a singer, attempting to escape, elide, or simply ignore the obstacles imposed by his dark skin, and Ruth becomes increasingly involved in the civil rights movement, Joseph is left suspended between poles of whiteness and blackness, action and inaction; his narrative is one of identity. Like the uninscribed ID bracelet that he quixotically gives his childhood sweetheart, he regards himself most often as a cipher, a blank, something that *should* have a distinct, vital identity, but instead is defined by lack.

I want to focus specifically on the character of David Strom, however, and his conflation of the forces of race and science. In response to Jonah's childhood interrogation of his racial "place" in society, David asserts, as he often does over the course of the novel, relativity:

> 'You are a Negro, right? And Da's… some kind of Jewish guy. What exactly does that make me, Joey, and Root?'… Mama looked off into whatever place lay beyond sound. Da, too, shifted. They'd been waiting for the question, and every other one that would follow, down the years to come. 'You must run your own race,' our father pronounced (Powers 29).

David's statement suggests both indeterminacy and individual identity-formation; race, for him, is what Jonah, or Joseph, or Ruth make of it. His attempts elsewhere in the book to reduce racial questions to issues of probability, mathematic formulae, or even, by analogy, particle physics, strike the reader as alternately comical, baffling, insightful, and misguided. He defines his children's ethnic dilemma as "just mathematics! They can be A and not B. They can be B and not A. They can be A and B. Or they can be neither A nor B," to which the narrator wryly responds: "three more choices than this child would ever get" (Powers 287). David's scientific rhetoric permits him to elide racial and material realities—by transfiguring the problem with the discourse of physics and probability, he makes the issue an equation, a riddle with a single, if not definite, answer. In short, mathematics permits him to claim that "'There is no such thing as race. Race is only real if you freeze time, if you invent a zero point for your tribe. If you make the past an origin, then you fix the future. Race is a dependent variable'" (Powers 94). Science in Powers' novel elides race, defeats it, reduces it to finical judgments and syllogisms.

It might be remarked that this is too easy, too reductive, too ignorant not only of the ephemeral, even empirically inaccessible, minutiae of race, and indeed this turns out to be the case for David Strom. Toward the end of the book, Powers reveals that the endless, seemingly chaotic mathematical labyrinth he has been traversing is in fact associated with the Manhattan Project; David has been inadvertently lending his talent to the making of the bomb. Despite Delia's manic, compensatory self-assurance that "he can't have contributed much to this bomb. You can't turn an atom into twenty thousand tons of TNT on anything so imaginary as time," David becomes inevitably associated with the entire Project (Powers 409). Moreover, he is forced to confront the social and specifically *racial* consequences of his actions following Hiroshima and Nagasaki in the form of a critique from his own father; "He challenged my war work… he said those bombings were as racial as Hitler. I said I didn't work on the bombings. I did not have anything to do with those decisions. I said such use wasn't about white and dark. He

said everything—the whole world—was about white against dark" (Powers 465). David's relativistic scientific racial immunity dissipates with the dust of the bombed Japanese cities.

However, David's reaction to the necessity of the race question is not to draw defining lines and delineate hard racial distinctions, but instead to abdicate the responsibility, to insist that others adopt the burden of ethnic identity. He and Delia resolve the vexed issue of their children's race by determining to "raise the children *beyond race*… we don't name them. They'll do that for themselves… we're going to raise them for when everybody will be past color" (Powers 424, emphasis mine). This statement posits a utopian ethnic space, an area where race is not irrelevant but simply *nonpresent*, the same imagined moral space that Oppenheimer and the Trinity scientists occupied. Though race may be an imperative (as David realizes), it is an imperative that operates in a register transcended (or imagined to be transcended) by these characters—the time when "everybody will be past color." This is a distinctly post-Trinity, a post-Hiroshima, mindset: the bomb does not, strictly speaking, *destroy* race any more than it solves racial issues; however, it claims the possibility of existing outside of it, beyond it, the notion of talking *past* the issue.

Faulkner's antidote to the possibility of nuclear annihilation was a return to "the old verities and truths of the heart," without which "any story is ephemeral and doomed." He famously "decline[d] to accept the end of man," instead positing an ethos of endurance in which man's immortality is assured "not because he alone among creatures has an inexhaustible voice, but because he has a soul, a spirit capable of compassion and sacrifice and endurance" (Faulkner 119). Priscilla Wald, in a recent address to the annual Faulkner and Yoknapatawpha Conference in Oxford, MS, correctly identified Faulkner's fear of nuclear annihilation as a *social* rather than a *material* fear. For Faulkner, she states,

> …apocalyptic fear is the fear of social death writ large, since it leaves no one to tell the story that bestows social existence and the measure of immortality that memory confers. The histories of racial slavery and colonization offer dramatic examples of social death and insist on its fundamental racialization, not just in Faulkner's South, but in the contemporary U.S. As Faulkner's invocation of those histories suggests, "apocalypse" refers not only to the literal annihilation of a population, but

also to the disappearance of a culture with which one identifies. (Wald 50)

The real threat for Faulkner is not death, not the possibility of being, as he tersely stated, "blown up," but the possibility of *forgetting*, the notion that very real and tangible events in the past can be elided by the threat, the inhumanity, even the *mass* of the bomb itself. This is the same potential, I believe, that Oppenheimer's placement of himself *beyond* morality and David Strom's placement of his children *beyond* race suggests—an imaginary space, a space not just without but *beyond* large social concerns. It is also, ultimately, the space that both Oppenheimer and Powers reject in favor of (transformed) reintegration into the world of morality and racial complexity.

The argument of the atom bomb, and perhaps one of the reasons why it has proven so attractive a target for literary and pop cultural representation, is the argument not only for the obsolescence of older means of warfare, but the obsolescence of older means of artistic representation, creation, and even thought. Oppenheimer, in his later years, eschewed his ivory tower in favor of speaking out, on profoundly moral grounds, against the development of the hydrogen bomb.[xii] The threat became, for him, not one of annihilation per se, but of forgetting the intense ideological ramifications of the bomb, the same threat that Faulkner outlines and that Powers' novel eventually realizes. These three individuals, whether immediately or gradually, came to deny residence within the imaginary space I have alluded to earlier, the hermetic realm in which it is possible to talk past issues like race, morality, and even representation. The crisis of representation, the anxiety felt by the authors and scientists I have studied here, is not the threat that life in the world might become impossible after Trinity, but that life in this imaginary space, the space where every aspect of life is rendered insignificant, might be *possible.*

Fig. 1—the Gadget, partial assembly

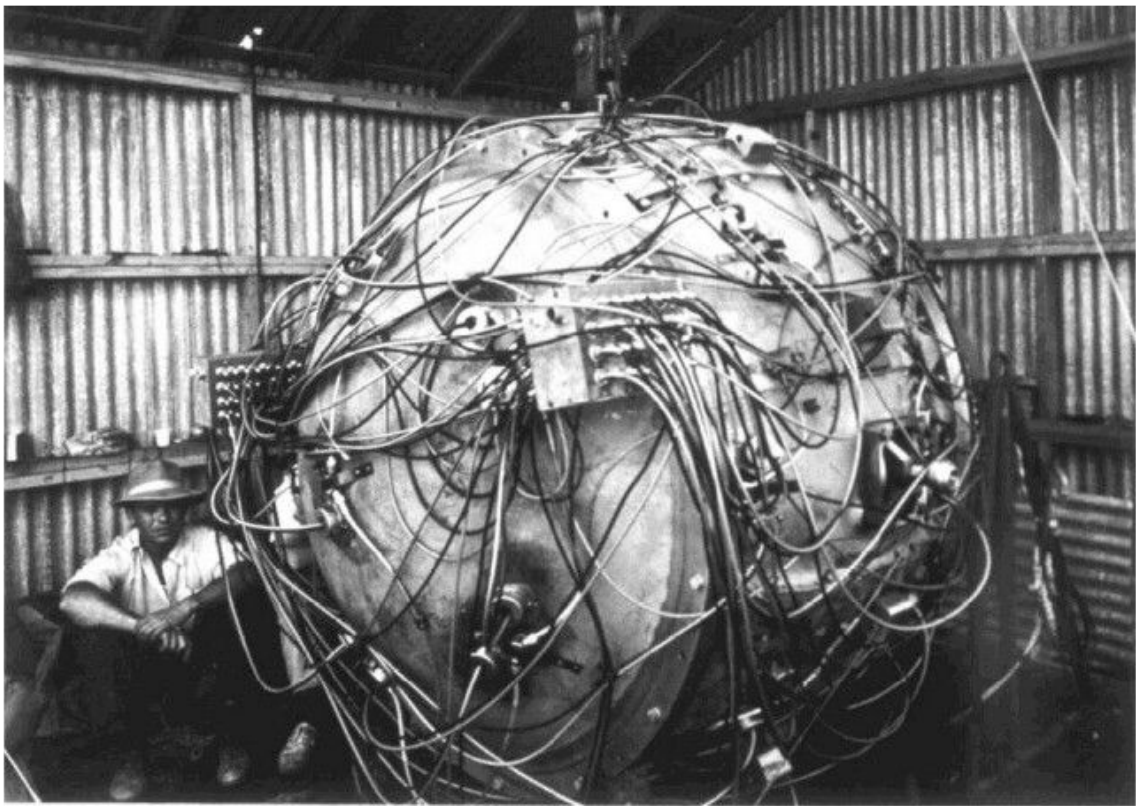

Image courtesy of Los Alamos National Laboratories.

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Notes

[i] Eyewitness accounts are taken from the "Trinity Remembered" archive at http://www.trinityremembered.com/documents/index.html

[ii] For more, see Priscilla Wald's "Atomic Faulkner" in *Faulkner's Inheritance*, eds. Joseph Urgo and Ann Abadie.

[iii] This rhetorically antagonistic relationship between nuclear weapons and high culture finds a correlate in post-Holocaust writing and certain postcolonial writings; these cataclysms, again of purely human origins, seem to induce discursive vacuums from which artistic creation, at least initially, tends to shrink. For more, see Elaine Martin's "Re-Reading Adorno: The 'after-Auschwitz' Aporia" in FORUM, Spring 2006, and George Handley's "A New World Poetics of Oblivion" in *Look Away!: The U.S. South in New World Studies*, 2004.

[iv] David S. Greenwald and Steven J. Zeitlin have put together a fascinating compilation of attitudes toward the "nuclear taboo" in Cold War America in *No Reason to Talk About It: Families Confront the Nuclear Taboo.* Greenwald and Zeitlin want to confront the notion that "what one individual thinks, or one family thinks, or even what one country thinks does not make a difference" in the Atomic Age. (Greenwald / Zeitlin 61)

[v] (Weart 416). For an engaging if somewhat oblique investigation of the literary character of the Japanese bombings in particular, see *Outcry from the Inferno: Atomic Bomb Tanka Anthology*, edited by Jiro Nakano. The Japanese *tankas* composed by survivors of the explosions oftentimes evince something like complete personal transfiguration. "I will overcome / the shattering of my mind / by the atomic bomb. / I shall decide the redirection / of my remaining life" (Nakano 49).

[vi] See, for example, *Dr. Strangelove*, *On the Beach*, *Grave of the Fireflies*, *When the Wind Blows*, or *Atomic Café*. For all of its referential difficulties, the bomb has proven to be an immensely profitable subject for both high and low culture. Disbelievers need merely to glance at Thomas Pynchon's *Gravity's Rainbow*, in which the bomb (albeit not an atomic bomb) acts as the site of inspiration, anxiety, symbolism, and parody all at once.

[vii] Ironically, Oppenheimer has also been criticized for being *too* moral by other scientists, perhaps most notably the famous physicist I. I. Rabi, who believed that "too great a dose of ethical culture can often sour the budding intellectual who would prefer a more profound approach to human relations and man's place in the universe," and lamented, at Oppenheimer's funeral, that the Project's director "was overeducated in those fields which lie outside the scientific tradition, such as his interest in religion, in the Hindu religion in particular, which resulted in a feeling of mystery of the universe that surrounded him like a fog. He saw physics clearly, looking toward what had already been done, but at the border he tended to feel there was much more of the mysterious and novel than there actually was." (Rabi 7)

[viii] An April 25, 1945 memo discussed by the directors of the project with President Truman states: "the development of this weapon has placed a certain moral responsibility upon us which we cannot shirk without any very serious responsibility for any disaster to civilization which it would further" (Stoff, Fanton, Williams 96).

[ix] Jeff Hughes, in *The Manhattan Project: Big Science and the Atom Bomb*, has shrewdly suggested that the nuclear scientists toward the end of the war only became truly interested in moral issues once their immediate usefulness had been exhausted: "despite later accounts which often emphasized the observers' philosophical or moral reflections on the Trinity test, the scientists' immediate reactions were first of euphoria and second of trying to obtain as much information as possible about the explosion… there had been stiff opposition to the decision to drop the bombs on cities from the Chicago scientists, who had found themselves at something of a loose end after the wind-down of the plutonium work and had turned to thinking about broader moral and political questions surrounding atomic weapons" (Hughes 92).

[x] Perhaps the most telling evidence of the moral interest in nuclear warfare post-Trinity is the significant interest that several branches of the Christian church in America and elsewhere took vis-à-vis disarmament and proliferation of nuclear devices. For more, see *Ethics in the Nuclear Age: Strategy, Religious Studies, and the Churches*, edited by Todd Whitmore.

[xi] There are even those who have attempted to make the enclosed space of the Project a symbol for racial cooperation and equality; since Los Alamos staffed scientists of almost every racial background (many of them émigrés from the European genocide), there is an impulse to regard the Project as "the borderless state that recognizes no passports, the country of particles and numbers" (Powers 330).

[xii] And was subsequently indicted and stripped of his security clearance on grounds of "Communist sympathies" by the House Un-American Activities Committee in 1953.