## Doctor Atomic and His Gadget

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THE TANNER LECTURES ON HUMAN VALUES

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Yale University October 29, 2009 Composer and conductor JOHN ADAMS was born in Worcester, Massachusetts, in 1947. He studied the clarinet with his father and began composing at the age of ten. After attending Harvard University, he moved in 1971 to the San Francisco Bay Area, where he now lives.

Adams's operatic works, *Nixon in China, The Death of Klinghoffer*, and *Doctor Atomic*, all created in collaboration with stage director Peter Sellars, draw their subjects from archetypal themes in contemporary history and are among the most performed operas of our time. Adams was awarded the Pulitzer Prize in Music for his 2002 work "On the Transmigration of Souls," commissioned by the New York Philharmonic to commemorate the first anniversary of the September 11, 2001, attacks.

Adams has been awarded honorary degrees and proclamations by, among others, Cambridge University, Harvard University, Yale School of Music, Phi Beta Kappa, Governor Arnold Schwarzenegger of California, and the Juilliard School. Currently Creative Chair of the Los Angeles Philharmonic, he regularly guest conducts orchestras throughout the United States and Europe.

Adams's autobiography, *Hallelujah Junction*, was named one of the "Most Notable Books" of 2008 by the *New York Times* and was the winner of the 2009 Northern California Book Award for Creative Nonfiction.

Today I want to focus on how signal events in a nation's history can rise to the mythic level and how and why I regard those myths a proper hunting ground for musical and dramatic treatment. Thomas Mann's theme in *Doctor Faustus* is just as much about society as it is about art. Ideas of order are common to both artists and to social philosophers. Life seems to balance precariously on a delicate fulcrum between chaos and control, between too much liberty and too much order. One of the lures of *Doctor Faustus* is that it so eloquently draws an analogy between designing a work of art and designing a free but functioning society. Despite the extensive references to "objectivity" in the artwork, the final tally by the book's end seems strongly to suggest that a work of "absolute music" simply does not exist, that its social setting is much too strong an influencing factor to be denied, and that likewise the compulsion to order and control in society can only lead to fascism and catastrophe on a grand scale.

Like Thomas Mann, I am drawn to the relationship of art and society, and to that of art and history. And I am also an artist who, very much in the manner of Thomas Mann, accords considerable weight to the parodistic instinct when conceiving and executing my work.

I am frequently puzzled and not a little annoyed by hearing myself referred to in the media as a "political" composer. My operas are, you may already know, "ripped from the headlines." In fact, if you Google the noxious term docu-opera, you will find the first result is a reference to my opera Nixon in China. Another Google result compares the term to its historical predecessors, concluding that operas like Nixon in China and The Death of Klinghoffer have been around long enough for the term to be considered a "value-neutral descriptor of a sub-genre, like opera buffa or verismo opera." The reason for my puzzlement is that I consider the themes I choose—global politics and social revolution, or international terrorism, or the creation of the atomic bomb—not simply "mere news," but rather human events that have become mythology. They constitute a constellation of communally shared perceptions and responses in much the same way that the mythological lore, the sagas and fairy tales and epics and ritual dramas, of preindustrialized societies was a symbolic expression of the collective experience of a tribe, a city-state, or even a nation.

The great student of mythology Joseph Campbell wrote, "Wherever the poetry of myth is interpreted as biography, history, or science, it is killed. The living images become only remote facts of a distant time or sky. Furthermore, it is never difficult to demonstrate that as science and history

mythology is absurd." But I take a very different tack on mythology, especially when it comes to our contemporary myths, although I concede that I have to stretch the classical definition. Biography, history, and science have come to constitute our own myths, whether they are people (Lindbergh, Ghandi, Babe Ruth, Michael Jackson) or events (Pearl Harbor, the moon landing, the JFK assassination, 9/11) and so on. The Oxford English Dictionary's first definition of a myth is "a purely fictitious narrative usually involving supernatural persons, actions, or events, and embodying some popular idea concerning natural or historical phenomena." Legend, according to the OED, implies a "nucleus of fact," and that may be closer to what I am doing, but I use *myth* in the sense of a narrative that, although based on real people or real events, has been taken up in the collective unconscious of a society to the point where its truth content takes second place to its symbolic power. Andy Warhol understood the immense psychological grip of iconic images from the media—the glamorous smile of Marilyn Monroe, Jackie Kennedy in mourning, Elvis with a six-shooter, an electric chair, and so on. Many of these images, the moment we see them, launch narratives in our minds. And true to the OED's definition of a myth, they "embody some popular idea concerning natural or historical phenomena."

I think the "supernatural" element is essential to what we regard as a myth. It is not a stretch of the imagination to think how the media, particularly the electronic media, "supernaturalizes" events, amplifying and distorting certain elements while diminishing or even suppressing others, forming what Foucault called the "dominant discourse." In his classic book published in 1977, Four Arguments for the Elimination of Television, Jerry Mander acknowledged the subversive power of the mass media to distort and massage historical facts and images for both commercial and political purposes. Of his own experience as an advertising executive, Mander wrote, "I came to the conclusion that like other modern technologies, which now surround our lives, advertising, television and most mass media predetermine their own ultimate use and effect. In the end, I became horrified by them, as I observed the aberrations which they inevitably create in the world." Mander's is not a neutral position, obviously. But what he points to is the way in which the manipulation of events, by the news media, by advertising, or through the organs of popular culture, supernaturalizes them. When these events or personalities saturate the public consciousness and unconsciousness, they become totemic,

I. Joseph Campbell, The Hero with a Thousand Faces (London: Fontana, 1993), 249.

emblematic. And some, no matter how tawdry or cynically manipulated they may be, nonetheless rise to the status of myth.

I wrote in some detail in my autobiography, Hallelujah Junction, about how the stage director Peter Sellars in 1983 proposed to me the idea of writing an opera about the epochal meeting between Mao Tse-tung and Richard Nixon in 1972, an event that shocked our country with its bold, completely unexpected display of global realpolitik. At the time, curiously enough, I was deeply involved in reading about mythology. And when Peter and I first began to talk about doing an opera together, I happened to be in the middle of composing a film score for a documentary about another student of mythology, Carl Gustav Jung. I had even journeyed to Bollingen, Switzerland, to visit the small stone house that Jung in his old age had built and covered with his own strange paintings of dream archetypes. At that point I could only think of a myth as something archaic from the dim past of the human experience. The image of Mao and Nixon shaking hands while the whole world watched on television seemed the furthest thing imaginable from what I construed as mythology. It took me some time to realize that we as citizens of the electronic age are, whether we are aware of it or not, saturated with myth, and the Nixon-Mao story is just one of the more piquant examples of how an event first reaches us via the medium of "news" (already heavily manipulated and filtered) and then, through the incessant replay of images and sound bites and nuggets of "received wisdom," becomes supernaturalized and becomes and ascends to the status of myth.

September 11 is also a classic case in point. I do not think many would be hard put to acknowledge that the profound effect those attacks had on our collective feeling as a country was due to the iconic nature of the imagery that we viewed over and over in the succeeding weeks and months—the stunning camera shots of the burning buildings and the imponderably potent symbolism of their collapse. These images were replayed so often in the media that they formed a kind of ritualistic reenactment, turning the event into iconic symbols.

In this case what began as "news" then became entertainment, entertainment of the very morbid variety, but entertainment nonetheless, and from there on its uses became infinitely darker. As anyone who has viewed Leni Riefenstahl's film of the 1933 Munich Olympics knows, a striking image, ritually repeated, takes on a mythic power that can contain any number of subversive narratives. When disseminated on a grand scale, that manipulation of those narratives can have devastating results.

When I finally gave Nixon and Mao some serious thought, I realized that the story was full to the brim with the mythology of contemporary life. There was, for instance, the theme of two clashing views on how human life might be lived: one, the capitalist, market-driven model in which a monetary value is placed on every object and nearly every human act; the other, the communist model in which a universal collective dictates from an arbitrary position of power with the stated goal that no person anywhere should go hungry or wanting, nor should he accrue to himself a surfeit of goods or comfort at the expense of another. Nixon in China also provided models of personal power, presidential *vanitas*, and the kinds of self-created heroic narratives that people in power usually craft for themselves, "personae" that help to sell their particular message.

Both Mao and Nixon had made of themselves grandiose cartoons that our librettist Alice Goodman took great pleasure in deflating. The Long March, the Vietnam War, the Boxer Rebellion, Confucius, George Washington, Chiang Kai-shek, the Great Wall of China, and Henry Kissinger's love life all came together in a cluster of—what should I call them . . . "signifiers"? Well, if not signifiers, at least heavily freighted symbols that provided background, middle ground, and foreground for an opera.

Alice Goodman's libretto, drawn from sources as vast and varied as Mao's Red Book, Kissinger's White House Years, Communist Chinese propaganda magazines, Readers' Digest, Time, Newsweek, Confucius's sayings, and video archives from the major American television networks, weaves together history both global and intimate with penetratingly acute psychological sketches of each of the characters. For me as a composer, Alice's treatment helped to raise each character to his or her mythic level. Nixon is the presidential Everyman, American version. He is a mixture of personal vanity, political cunning, utopian dreamer, and serial paranoid. In the first act of Nixon in China, after an opening chorus sung by scores of Chinese soldiers, we hear the rumble of Air Force One as it circles the airport and lands on the runway. The door to the plane opens, and the president emerges, giving the classic politician's wave to the assembled multitude and then descending the ramp onto the tarmac where he is greeted, first by Premier Chou En-lai and then by other Communist Party officials. After a little courteous chitchat ("Your flight was smooth, I hope?" and the like), Nixon, followed at a discreet distance by the first lady and by Secretary Kissinger, greets a long line of identically clad party members. As he shakes each hand he is staring straight into the television cameras. And this is what he sings:

News has a kind of mystery: When I shook hands with Chou En-lai

On this bare field outside Peking Just now, the world was listening.

Though we spoke quietly
The eyes and ears of history

Caught every gesture— And every word, transforming us

As we, transfixed— Made history.

On our flight over from Shanghai —the countryside

Looked drab and grey. "Brueghel," Pat said. "We came in peace for all mankind,"

I said, and I was put in mind Of our Apollo astronauts

Simply— Achieving a great human dream.

We live in an unsettled time. Who are our enemies? Who are

Our friends? The Eastern Hemisphere Beckoned to us, and we have flown

East of the sun, west of the moon Across an ocean of distrust

Filled with the bodies of our lost; The earth's Sea of Tranquillity. It's prime time in the U.S.A. Yesterday night. They watch us now;

The three main networks' colors glow Livid through drapes onto the lawn.

Dishes are washed and homework done, The dog and grandma fall asleep,

A car roars past playing loud pop, Is gone. As I look down the road

I know America is good At heart. An old cold warrior

Piloting towards an unknown shore Through shoals. The rats begin to chew

The sheets. There's murmuring below. Now there's ingratitude! My hand

Is steady as a rock. A sound Like mourning doves reaches my ears,

Nobody is a friend of ours. The nation's heartland skips a beat

As our hands shield the spinning globe We must press on . . .

There is a wealth of reference and symbols in this one amazing text, all written in heroic couplets. "News has a kind of mystery": right from the start Nixon is acknowledging the brutal capriciousness of that strange and imponderable entity in our lives that we call "news." No one could testify more intimately to the jarring vicissitudes of making "news" than Nixon, and no one had quite the scars to show for a lifetime of trying to manipulate the beast—and this was still a year before Watergate. As he shakes hands he is intensely aware of his symbol-making gestures. Television, "The eyes and ears of history," is catching every gesture and every

word. It is "we" (that is, he and the premier) who are making history. (Nixon had clearly left his copy of Tolstoy back in Washington.)

Then the shift to the personal: "On our flight over from Shanghai /— the countryside/Looked drab and grey. 'Brueghel,' Pat said." This is in fact a quote from Nixon's memoirs, and Mrs. Nixon did make that comparison with the Dutch painter. But then, imagine a husband and wife conversing like this. She says, "It's sort of like Brueghel, isn't it?" His response: "We came in peace for all mankind" (the utopian).

Then follows a beautiful chain of imagery that touches on so much in so few words. "We live in an unsettled time." (When did we ever not? But what politician would ever pass up the phrase?) "Who are our enemies? Who are/Our friends? The Eastern Hemisphere/Beckoned to us, and we have flown/East of the sun, west of the moon," a reference to a popular ballad from the 1930s, just the time when the Nixons would have met and fallen in love. (Incidentally, for the musicologists in the audience, Wikipedia, my flawless source of facts, says that "East of the Sun and West of the Moon" was composed by one Brooks Bowman, an undergraduate member of Princeton University's Class of 1936, for the 1934 production of the Princeton Triangle Club's production of *Stags at Bay*.)

Nixon continues with these melancholy but beautiful images: "we have flown/East of the sun, west of the moon/Across an ocean of distrust/Filled with the bodies of our lost;/The earth's Sea of Tranquillity." The ocean of distrust separates particularly the insular conservative Americans from what was regarded for decades as the Red Menace of Communist China. That ocean is filled with bodies of American soldiers and sailors who died in World War II in the same Pacific theater in which Nixon himself participated as a serviceman. A watery graveyard, it is "the earth's Sea of Tranquillity," but it was also the moon's Sea of Tranquillity where less than three years earlier Apollo 11 had brought the first man, an American with the eerily archetypal name of Neil Armstrong, to be the first human to set foot there.

"It's prime time in the U.S.A./Yesterday night." The global village is shrinking, and Nixon thinks he is the new Vasco da Gama of the electronic age. And now the Spielbergian vision: the lights of the millions of American televisions glow livid through drapes onto the lawn. (Who in the China of 1972 would have had a lawn?) "Dishes are washed and homework done,/The dog and grandma fall asleep,/A car roars past playing loud pop,/Is gone." The Middle America idyll is momentarily interrupted by "loud pop." We remember Nixon railing against the "young

punks" who protested the war, took drugs, voted for someone else. It all comes back in a flash, but then, like the car roaring past in the night, it is suddenly gone. As Nixon looks "down the road"—such perfect Middle American language—he knows American is good at heart. He is an old cold warrior piloting the ship of state through troubled waters.

And then he is seized with a sudden fit of paranoia. "The rats begin to chew/The sheets." He imagines murmuring going on behind his back and worse—ingratitude.

I have parsed Alice Goodman's text in such detail because I want to give a hint of how a historical event and a historical character compel me to make music and theater of it. When as an artist you move around in the musical and poetic zone of music drama, you handle your subjects as mythic figures. After *Nixon in China* was around for a while, people frequently asked me whether the former president had actually seen the opera. That was an understandable question, but it seemed to miss the point. Our Nixon, our Mao, their wives, Chou En-lai, and Kissinger I regarded as having much the same relation to their originals as perhaps Shakespeare's English monarchs had to the historical originals.

In the opera that followed, *The Death of Klinghoffer*, mythology and historical verities get dangerously entangled, and in the aftermath of the world premiere and follow-up productions, I learned how deeply even the most intelligent and worldly of citizens could themselves become caught in the grip of conflicting mythologies.

The Death of Klinghoffer was based on the 1985 hijacking of an Italian cruise ship, the Achille Lauro, by four young Palestinians and the assassination of one of the passengers, a retired sixty-nine-year-old handicapped Jewish American, Leon Klinghoffer, who was confined to a wheelchair. I fully understand how referring to this violent and tragic event as "mythology" could easily insult anyone who believes that the truly serious events of today's world situation are not an appropriate arena for artists to be drawing their subject matter. Nonetheless, like it or not, terrorism has become a highly refined form of symbolic theater, with its target audience and implicit and explicit message. Now whether you agree with historian Stanley Hoffmann when he describes terrorism as "the weapon of the weak in a classic conflict among states or within states," a terrorist act is more often than not predicated on and justified by a mythic hypothesis, whether it be that martyrdom will be rewarded in Paradise or that one nation is the great Satan while another has a God-given claim to a land because scripture written four thousand years ago confirms it. How

else could we describe the reasoning that results in innocent individuals becoming randomly chosen victims and impels suicide bombers to give up their own lives in order to bring about the death of others?

There is perhaps a no more emphatic single image to summon up the human predicament in our lifetimes than that of the atomic bomb and its blooming mushroom cloud. My own early childhood, lived out in the 1950s and early 1960s, was dominated by this single image. It was an image both darkly threatening yet at the same time strangely irresistible. The bomb was science and human invention sprung instantaneously to the mythic level. Its powers of signification and symbolism were vast, capturing the imagination and lodging in the deepest regions of the world's communal psyche.

Composing an opera that would have this history-altering object as its central theme was first proposed to me by Pamela Rosenberg, at the time general director of the San Francisco Opera. Curiously enough, her proposal came in the form of the idea of creating an "American Faust." Pamela felt that the central figure in bringing the bomb to existence, physicist J. Robert Oppenheimer, had some of the characteristics of the Faust character, particularly Goethe's version of him. Oppenheimer was gifted with one of the quickest intellects known to science. His extraordinarily agile powers of comprehension and discrimination allowed him to make intuitive leaps in understanding that left most of his physicist colleagues struggling to keep up. He was lucky to be born at a time when modern physics was coming into bloom, and thus he benefited enormously from the two generations that had immediately preceded him, a generation that included Einstein, Bohr, Planck, and Heisenberg. But Oppenheimer was more. He was a man of exceptional culture, a deep reader of poetry, particularly of the English metaphysical poets, of Charles Baudelaire, and of the Bhagavad Gita, which he read in Sanskrit. He came from a wealthy family of secular Jews—his brother Frank was also an accomplished physicist—a family that owned a painting by van Gogh and listened only to classical music. Anyone who knows about Oppenheimer—and he has become one of the most pored over and minutely chronicled public figures in recent American history—knows the story of how Oppenheimer had tenuous associations during the late thirties and early forties with leftwing politics. His wife, Kitty, had been previously married to an American Communist Party union organizer, and his brother Frank was at one point a Communist Party member.

Indeed, there were enough looming parallels between Faust and Oppenheimer to suggest the latter as a subject for an American Faust.

Certainly, there was the paradox of how this hugely endowed and wellborn man, wealthy, charismatic, cultured, an intellectual nonpareil, would be the person who would shepherd the creation of the world's first nuclear bomb. But the more I read about Oppenheimer and the situation facing the United States at the worst point during the war, the less I thought it reasonable to draw a parallel between Oppenheimer himself and Faust, at least on a personal level. Not to act in the threat of Nazism at that time, one would have had to have been a complete pacifist and accept with resignation the inevitability of a long, dark night of the soul. The presumed threat of a German atomic bomb was what prompted the Manhattan Project, and it is one of the supreme ironies of Nazi racism that a significant number of the great minds that were instrumental in winning the race were émigré Jews. The hundred or more brilliant young physicists, chemists, engineers, and mathematicians who assembled on a high mesa in Los Alamos, New Mexico, considered themselves not at all making a pact with the devil, but rather completely devoted to winning a war against tyranny, or as Robert Wilson, one of the youngest of them and a protégé of Oppenheimer, said, "going out to save civilization."

Nonetheless, the mythic potential for this story was irresistible to me. The bomb was the nexus of so many crucial themes that lay at the center of the human condition, not the least of which was the marriage of scientific knowledge and the technology of destruction. Here the Faust myth seemed to have resonance. Peter Sellars, who fashioned the libretto out of existing sources, and I made this paradox the central crisis of the story.

The moment on that July morning of 1945 that the first plutonium sphere went supercritical and detonated, releasing the previously unimaginable amounts of energy, the relationship of the human species to the planet irrevocably changed. The bomb was living proof that we as a species now had within our reach the potential to destroy our own nest. This was a seismic event in human consciousness, and the wealth of literature both pulp and serious, science fiction films, and other chilling and apocalyptic art that emerged during the following decade acknowledged how quickly the atomic bomb had ascended into the realm of myth.

Probably the single most controversial thing about *Doctor Atomic* as a work of music theater was its unusual libretto. Peter Sellars, realizing that the available archival material on Los Alamos and the Manhattan Project was extensive and in itself told a compelling and dramatic story, crafted the libretto from original sources. These included quotes from the scientists and military people themselves taken from their memoirs, from

letters, or from contemporary accounts. Thus, when the physicist Edward Teller first begins to sing, we hear his own words:

First of all, let me say that I have no hope of clearing my conscience. The things we are working on are so terrible that no amount of protesting or fiddling with politics will save our souls.

This is a quote from Teller's own memoir. In this same opening scene Teller reads a letter from physicist Leo Szilard that urged the scientists involved in the making of the bomb to take a public moral stance about how the bomb should or should not be used in warfare. By the summer of 1945 the Germans, who we had believed were developing their own atomic bomb, had already surrendered. It was now becoming clear to the scientists at Los Alamos that their weapon would be used on Japanese cities, and Szilard was one of a handful of them who felt compelled to protest what would surely be a massacre of tens if not hundreds of thousands of civilians at a point when the end of the Pacific war seemed only a matter of time. Again, Peter Sellars's libretto uses that very letter that Szilard sent to be circulated among the scientists at Los Alamos:

Many of us are inclined to say that individual Germans share the guilt for acts which Germany committed during this war because they did not raise their voices in protest against those acts. Their defense that their protest would have been of no avail hardly seems acceptable, even though these Germans could not have protested without running risks

to life and liberty. We scientists, working on "atomic power," are in a position to raise our voices without such risks, even though we might incur the displeasure of those who are at present in charge. The people of the United States are unaware of the choice we face. And this only increases our responsibility in this matter. We alone who have worked on "atomic power" we alone are in a position to declare our stand.

The libretto is thus constructed, ingeniously interweaving quotes from an amazing number of sources, including a 1945 book called *Atomic Energy for Military Purposes* that provides the text for the opera's opening chorus; magazines and popular literature from the fifties and sixties, books with titles like *Target Hiroshima*, published by the Naval Institute Press; and interview transcripts with scientists who were involved that were generously provided by documentary filmmaker Jon Else. There is a chilling moment in the first act when Oppenheimer sings words that come from the recently declassified transcript of the meeting in Washington, D.C., which Oppenheimer attended, when the cities of Hiroshima and Nagasaki were singled out for bombing. This had me extending my craft of text setting by having to find a musical expression for lines such as this (sung by Oppenheimer):

The Secretary of War concludes—that we cannot give the Japanese any warning; that we should seek to make a profound psychological impression on as many inhabitants

as possible.

Doctor Conant suggests
a vital war plant as
the most desirable target,
employing a large number of workers
and closely surrounded by workers' houses.

But transcripts and quotes would by themselves make a tedious evening in the theater and rob the opera of its potential for reaching the sublime. And this is why the Doctor Atomic libretto combines these archival sources with poetry, and not just any poetry, but great poetry. Fortunately, in the case of J. Robert Oppenheimer, this was an entirely appropriate inclusion, because Oppenheimer was a widely literate reader of poetry, and during his undergraduate years at Harvard he had often tried his hand at composing poems in a variety of metrical forms. His tastes, as I have already mentioned, ranged over many languages and many historical periods. So, as a dramatic device, having Oppenheimer sing texts by some of his beloved favorites such as Charles Baudelaire and John Donne and from the Bhagavad Gita was not at all that great a leap of the imagination. One other poet, American Muriel Rukeyser, a contemporary of Oppenheimer, although not necessarily known to him, provided much of the text for the character of Kitty Oppenheimer, his wife. Rukeyser, whose poetry reflected her passionate commitment to social justice, wove science and politics into her visionary lyrics, and the profoundly feminist tone of her voice provides a critical counterweight to the male-dominated society of scientists and military personnel.

Having composed five operas and having lived in that world off and on over the past twenty-five years, I can attest to the fact that opera is blood sport, and no more emphatic proof of that exists than the torrent of criticism that greeted *Doctor Atomic*'s unusual libretto, especially after it had a run of seven performances at the Metropolitan Opera. Opera aficionados were not prepared for a libretto that moved back and forth from the banal rhythms of spoken language, much of it about physics and engineering, and the dense, evocative, and elusive world of great poetry.

A typical response, one of dozens that complained about the perceived lack of dramatic tension resulting from a libretto made in this manner, read like this: "If, as a composer, I were presented with this libretto, I'd have torn it to shreds. Nothing is shaped: nothing develops; so there's nothing to compose into. For all its moment-to-moment sparkle and range, the

score functions in very limited ways: either as extended scare-tremolandi for the foreboding prose scenes, or as tastefully chosen frames for Sellars' gallery of poetic sources; opalescent neo-Impressionism for the Baudelaire, severe D-minor and Scotch-snaps in the vocal line for the Donne, Rite of Spring primitivism for the Bhagavad-Gita." I understand the critical point of view here, and I could even sympathize with the irritation of a viewer who came to the theater looking for a tightly constructed dramatic narrative, where characters are introduced and fleshed out with past histories and where their actions lead to a carefully modulated dramatic climax. Complaints were made especially about the fact that when Oppenheimer or his wife, Kitty, or even the chorus sang passages of poetry, the narrative motion stopped dead in its tracks and a naturalistic interchange among the characters gave way to long, dreamlike monologues. But that is a criticism coming more from the verismo camp, requiring the kind of approach to stagecraft we might expect from a Verdi or a Puccini or a Richard Strauss. Opera, if we survey its very rich variety of form and conventions, is not just verismo, not just naturalistic theater set to music. One only has to look at the operas of Monteverdi, of Handel, or of Mozart to see how the aria functions so emphatically as pure poetical affect, as the moment when the character steps out of narrative time and lives in purely poetic time.

All of my operas are tightly packed into short timelines. Nixon in China is confined to the three days the presidential party spent in Peking, one day for one act; the "action" of Klinghoffer is bracketed by the fiftyodd hours of the hijacking. The first two scenes of Doctor Atomic occur at Los Alamos at the end of June 1945. The entire remainder of the opera happens two weeks later on the night and early morning of July 16. There are two immediate dramatic crises that underlie both the music and the action. One is the growing doubts and moral scruples among some of the scientists about the bomb's ultimate use on civilians and the circulation of a petition by the younger physicists designed to be unanimously signed and sent to President Truman, an action that, as Oppenheimer cautions, could potentially be deemed treasonous. The other more mundane crisis is the weather. An unexpected torrential summer electrical storm has blown in just as the plutonium sphere has been winched up onto the tower. The test must go on. Pressure from the White House is implacable. But a test carried out in these weather conditions could blow fallout back on the entire party of scientists and military personnel.

In the very late hours before dawn, the storm blows over. Everyone is taking a much-needed nap on the floor of the desert in the dark, waiting

for the dawn and the detonation. Oppenheimer is for the first time in months alone with his thoughts, and he contemplates the looming figure of the plutonium sphere that for the moment has been covered in a canvas tent that looks like an eerie shroud. He sings a sonnet by perhaps his favorite poet, John Donne, "Batter my heart, three-person'd God." This is a poem filled with the keenest sense of loss, of alienation from one's soul.

Batter my heart, three person'd God; For, you As yet but knock, breathe, Shine, and seek to mend; That I may rise, and stand, o'erthrow me, and bend Your force, to break, blow, burn and make me new.

I, like an usurpt town, to another due,
Labor to'admit you, but Oh, to no end,
Reason your viceroy in me, me should defend,
But is captiv'd, and proves weak or untrue,
Yet dearly I love you, and would be lov'd fain,
But am betroth'd unto your enemy,
Divorce me, untie, or break that knot again,
Take me to you, imprison me, for I
Except you enthrall me, never shall be free,
Nor ever chaste, except you ravish me.

Most of what comes before this moment has been anxious and volatile, the music often teetering on the edge of atonality. My decision to make a wild affective leap and set this John Donne sonnet as a kind of refracted chaconne in D minor must have been an unconscious response to the solemn language of the poem and the noble gravitas of its rhythms. The familiar harmonic movement is a trope that we can all identify with, but by placing its internal harmonic rhythms in a sort of tonal hall of mirrors, by pushing, pulling, and gently distorting their expected tensions and resolutions, the music seems, at least to me, both archaic and strangely familiar.

Not unlike Thomas Mann's Faust, John Donne's narrator feels himself divorced from his God, "captive," "betrothed" to God's enemy. It is a poem of the most intense yearning for reunion with God, with wholeness. Unlike Faust, Donne begs to be brought back into the fold, pleads that God might batter him, knock him, untie that terrible knot and set him free.