

JOHN ADAMS

DOCTOR ATOMIC

Libretto by Peter Sellars drawn from original sources

Libretto

HENDON MUSIC

BOOSEY & HAWKES

*This Opera was commissioned by San Francisco Opera
Commission sponsor: Roberta Bialek*

*The aria, "Easter Eve 1945" was commissioned by the New York Philharmonic,
Lorin maazel, Music Director, in association with the San Francisco Opera*

DOCTOR ATOMIC

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TEXT CREDITS

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THE LOS ALAMOS PRIMER; THE FIRST LECTURES ON HOW TO BUILD AN ATOMIC BOMB
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Lamont, Lansing. *DAY OF TRINITY*
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Doctor Atomic

Act I

Scene 1

Chorus

We believed that
"Matter can be neither
created nor destroyed
but only altered in form."

We believed that
"Energy can be neither
created nor destroyed
but only altered in form."

But now we know that
energy may become matter,
and now we know that
matter may become energy
and thus be altered in form.

The end of June 1945 finds us
expecting from day to day
to hear of the explosion
of the first atomic bomb
devised by man.

All the problems are believed
to have been solved
at least well enough
to make a bomb practicable.

A sustained neutron chain reaction
resulting from nuclear fission
has been demonstrated;
production plants of several
different types are in operation,
building a stock pile
of the explosive material.
We do not know when the first
explosion will occur
nor how effective it will be.

The devastation from a single bomb
is expected to be comparable to that
of a major air raid by usual methods.

A weapon has been developed
that is potentially destructive
beyond the wildest nightmares
of the imagination;
a weapon so ideally suited
to sudden unannounced attack
that a country's major cities
might be destroyed overnight
by an ostensibly friendly power.
This weapon has been created
not by the devilish inspiration
of some warped genius
but by the arduous labor
of thousands of normal men and women
working for the safety of their country.

Teller

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.

Oppie

“The soul is a thing so impalpable,
so often useless,
and sometimes so embarrassing
that at this loss I felt
only a little more emotion
than if, during a walk,
I had lost my visiting card.”

Teller

I've found a new difficulty
with the latest design of the Super.
But since I haven't thought it through yet,
I would rather talk about it later.

Oppie

Talk about it now.

Teller

No.

Oppie

“Home stretch measures,” Edward.
“Ruthless, brutal people must
band together to force the
Fat Man components to dovetail in
time and space.”

The cowpuncher committee
has a mandate to “ride herd”
on the implosion program.

Chorus

We surround the plutonium core
from thirty two points
spaced equally around its surface,
the thirty-two points
are the centers of the
twenty triangular faces
of an icosahedron
interwoven with the
twelve pentagonal faces
of a dodecahedron.

We squeeze the sphere.
Bring the atoms closer.
Til the subcritical mass
goes supercritical.

We disturb the stable nucleus.

Oppie

We are bedeviled
by faulty detonators.
One detonator fizzles
or goes off a millionth of a second
too early or too late.

Teller

It ruins the symmetry of
the Gadget’s nuclear guts...

Oppie

No more quibbling over the plutonium core.

Teller

...and we've got a misfire.

Oppie

It will be a solid ball.
We have you to thank for that, Edward.
We'll kickstart the reaction
with a modulated initiator.

Teller

Let me apologize for my rudeness.
I dislike group meetings.

Oppie

Okay.
You don't want to return to the meetings?
You don't have to.
I'll talk with you
about your group's work
by yourself.

Teller

I received this letter
from my friend Leo Szilard.

Oppie

Szilard's a bright fellow,
kind of a busy-body,
but very bright.

Teller & Men's chorus (reading Szilard's letter)

"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.”

Oppie

I think it improper
for a scientist
to use his prestige
as a platform
for political pronouncements.

The nation's fate
should be left in the hands
of the best men
in Washington.
They have the information which
we do not possess.

Men like Marshall,
a man of great humanity and intellect--
it is for them to decide, not us.

Wilson

Actually, I'm organizing
a small meeting at our building.
The title is "The Impact of the Gadget
on Civilization."

Oppie

I saw the announcement.
I'd like to persuade you
not to have it.
I feel that such a discussion in the lab,
in the technical area,
is quite inconsistent with what
we talk about there.

Wilson

These questions are not technical questions,
but political and social questions,
and the answers given to them
may affect all mankind for generations.
In thinking about them
the men on the project
have been thinking as citizens
of the United States
vitally interested in the welfare
of the human race.

Oppie

I might warn you--
you could get in trouble
if you hold such a meeting.

Wilson

From radical to establishment figure
in two easy stages!

Oppie

Isn't it better that I have
a voice within the government?

Wilson

This is a petition.

“To the President of the United States:
We, the undersigned scientists,
have been working in the field
of atomic power.
Until recently we have had to fear
that in this war the United States
might be attacked
by atomic bombs,
and that her only defense
might lie in a counterattack
by the same means.
Today, with the defeat of Germany,
this danger is averted,
and we feel impelled
to say what follows...”

Teller (interrupting)

The machinery has caught us
in its trap...

Wilson

--and we can't stop now.
You want to know if it works.

(continues reading from the petition)

“...Atomic bombs
may well be effective warfare.
But attacks on Japan
cannot be justified
until we make clear
the terms of peace
and give them a chance
to surrender.”

Oppie

What do we know about Japanese psychology?
How can we scientists judge the way to end the war?

Wilson

We must first devise
a demonstration.
Where there won't be any people.
Not on a city.
Or a demonstration

right here in the desert.
Let them send observers...
see for themselves.

Oppie

What if it's a dud?

Teller

Every time we test it
something goes wrong.
Some component is failing.

Oppie

The Gadget Divison...
it's been thrown into turmoil.

Yesterday we had blisters,
blisters on the spheres' surface,
infinitesimal,

but large enough to cause a fatal misfit
between the hemispheres.

Wilson

Everybody is rushing around.
They don't appear to be ready.
But there's momentum.
Everybody's working day and night.
Nobody has a spare moment
and we work like dogs.
It's hard to stop and think
as one ought to.

Oppie

Well, how do you feel?

Wilson

Well, pretty excited.
Like going out to save civilization.

Oppie

The test must go on

as scheduled.
Groves has talked with Conant
and the “upper crust” in Washington.

Doctor Stearns described the work
they’ve already done on target selection.
It was agreed that psychological factors
in selecting the targets
are of great importance.

Chorus & Oppie

Kyoto.
Population, one million.
An intellectual center.
Classified double-A target.
Nagasaki: a secondary target.
Yokohama. Nagoya.
Fukuoka. Hiroshima.

Teller (to Oppie)

You used your scientific stature
to give political advice
in favor of immediate bombing?

Oppie

I explained that the visual effect
of an atomic bombing
would be tremendous.
A brilliant luminescence
rising to a height of up to
twenty thousand feet.
The neutron effect
of the explosion
would be dangerous to life
for a radius of at least
two-thirds of a mile,
a brilliant luminescence.

Teller

Our only hope is
to convince everybody
that the next war will be fatal.
For this purpose
actual combat use
might be the best thing.

Wilson

No. Before the bomb is used
Japan must have some warning.
A couple of days in advance.
It's our position as a great
humanitarian nation.
It's the fair play of our people.

Oppie (in counterpoint with the following chorus)

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 worker's houses.

Male Chorus (continuing to read the petition)

“A nation which sets the precedent
of using these newly liberated forces of nature
for purposes of destruction
may have to bear responsibility
of opening the door
to an era of devastation
on an unimaginable scale.

Oppie

Truman will never see that petition.
Security officials will deem it
a superfluous document
in light of the decisions
being made at highest levels.

I've already told them in Washington
that several strikes would be feasible.

Women's Chorus

All the resources of the United States,
moral and material,

may have to be mobilized
to prevent the advent of such
a world situation.

Teller

The more decisive a weapon is
the more surely it will be used,
and no agreements will help.

Could we have started the atomic age
with clean hands?

Act I Scene 2

(Kitty and Oppie are alone in their living room. He is reading documents, oblivious to her.)

Kitty

Am I in your light?

 No, go on reading
 (the hackneyed light of evening quarrelling with the bulbs;
 the book's bent rectangle solid on your knees)
only my fingers in your hair, only, my eyes
splitting the skull to tickle your brain with love
in a slow caress blurring the mind,
 kissing your mouth awake
opening the body's mouth stopping the words.

This light is thick with birds, and
evening warns us beautifully of death.
Slowly I bend over you, slowly your breath
runs rhythms through my blood
as if I said

 I love you
and you should raise your head.

listening, speaking into the covert night
 : Did someone say something?
 Love, am I in your light?

Am I?

 See how love alters the living face
 go spin the immortal coin through time
 watch the thing flip through space
 tick tick

Oppie

Long let me inhale, deeply,

the odor of your hair,
into it plunge the whole of my face,
like a thirsty man
into the water of a spring,
and wave it in my fingers
like a scented handkerchief,
to shake memories into the air.

If you could know all that I see!
all that I feel!
all that I hear in your hair!
My soul floats upon perfumes
as the souls of other men
float upon music.

Your hair contains an entire dream,
full of sails and masts;
it contains vast seas
whose soft monsoons
bear me to delightful climates
where space is deeper and bluer,
where the atmosphere
is perfumed with fruit,
with foliage and with human skin.

In the ocean of your hair
I see brief visions
of a port resounding with
melancholy songs,
of vigorous men of all nations
and ships of all shapes
outlining their fine and complicated architectures
against an immense sky
where eternal heat
languidly quivers...

In the glowing fire-grate of your hair
I inhale the odor of tobacco
mingled with opium and sugar;
in the night of your hair
I see the infinity
of tropical azure resplendent;
on the downed banks of your hair
I inebriate myself with
the mingled odors of tar,
of musk and of coconut oil.

Long let me bite your heavy, black tresses...
it seems to me
that I am eating memories.

Kitty & Oppie

The motive of it all was loneliness,
All the panic encounters and despair
Were bred in fear of the lost night, apart,
Outlined by pain, alone. Promiscuous
As mercy. Fear-led and led again to fear
... toward the cave where part fire and part
Pity lived in that voluptuousness
To end one and begin another loneliness.

This is the most intolerable motive : this
Must be given back to life again,
Made superhuman, made human, out of pain
Turned to the personal, the pure release:
The rings of Plato and Homer's golden chain
Or Lenin with his cry of Dare We Win.

Kitty

Those who most long for peace now pour their lives on war.
Our conflicts carry creation and its guilt,
these years' great arms are full of death and flowers.
A world is to be fought for, sung, and built:
Love must imagine the world...

Act I Scene 3

The Alamogordo test site. It is early evening of the night before the test of "Little Boy" the first plutonium bomb. As pressure mounts from Washington to proceed immediately with the test, a powerful electrical storm has arisen, threatening cancellation of the test. General Groves and Oppenheimer huddle around the desk of the chief meteorologist, Jack Hubbard.

Groves

What the hell is wrong with the weather?

Oppie

The weather is whimsical.

Hubbard

Thunderheads began moving into the area at
04.00 hours.

Groves

Lightning...
What if it hits the tower
and detonates the bomb?

Oppie

Rain is probably ruining the electrical connections.

Hubbard

General, weather forecasters
have opposed the test date for months—
it was set within a window
of unfavorable conditions:
thunderstorms, rain, high winds, inversion layers.
You overroad us, sir.

Groves

Is this insubordination?

Hubbard

Now we are onsite,
and conditions are exactly the worst possible,
with an electrical storm threatening
not just the test,
but the lives of those setting it up.

Groves

Five hundred U.S Superfortresses
are raining incendiary bombs
on four Japanese cities.
Our B-29's are destroying
half of every Jap city they hit.
The President of the United States
is talking to Joe Stalin in the morning
in Potsdam.
This test will proceed as scheduled,
with full weather compliance
or you will spend the rest of your life
behind bars,
Mister Meteorologist.

Hubbard

We are seeing storm clouds coming in

over the Chupadera Mesa
and the Oscuras.

Groves

I am asking for a firm prediction
as when the storm will pass.

Oppie

I am the heat of the sun; and the heat of the
fire am I also:
Life eternal and death. I let loose the rain, or
withhold it.
Arjuna, I am the cosmos revealed, and its germ
that lies hidden.

Hubbard

Sir, the volatility of the season
makes such prediction impossible.

Groves

So, you are refusing to forecast
good weather for the test?

Hubbard

I recommend we postpone the decision
until our next weather conference at 2:00 a.m.

Groves

Hubbard, I want a specific time.

Hubbard

At that time,
I will recommend postponing the test
until 5:30 a.m.,
when the thunderstorms
would be dissipated by
the first rays of the sun.

Groves

I demand a signed weather forecast.
I warn you...
if you are wrong, I will hang you.

Hubbard

I'll sign the report, sir.

Oppie

If we postpone,
I'll never get my people
up to pitch again.

I hear Fermi just rushed into the mess hall
pleading for postponement.
A sudden wind shift could deluge the camp
with radioactive rain after the shot.
The evacuation routes are inadequate.
It could be a catastrophe.

Groves

If I have to compromise security
by sending an evacuation force
into nearby towns,
our cover's blown.
The secret of the test
will end up headlined
in tomorrow's newspapers.
So far the press
is exercising voluntary censorship.

Nolan

With respect, sir,
Anyone with two good eyes
could have found Los Alamos
just by following the trail of beer cans
from Santa Fe.
But ever since the first grams of plutonium
arrived at Los Alamos, sir,
the medical division has been studying
the toxic properties of the deadly metal.
Its metabolism is similar to radium:
enough of it in the human body
eats through vital tissues,
disintegrates human kidneys
and causes fatal bone cancer.
Sir, no cure has yet been found
for the agonies that result
from overexposure to fallout and radiation.

Oppie

Feelings of heat and cold,
pleasure and pain,
are caused by the contact of the senses
with their objects.
They come and they go, never lasting long.
You must accept them.

Groves

You what?

Groves

I have been preoccupied with many matters,
but the prospect of fallout
has not been high on my priority list.

Now you're telling me that we
should be ready to evacuate Trinity?
Bring in troops and trucks to get everyone out
at a moment's notice, if something goes wrong?

Nolan

That could be the case, sir.

Groves

What are you, a Hearst propagandist?

Oppie

A serene spirit accepts pleasure and pain
with an even mind,
and is unmoved by either.
He alone is worthy of immortality.

Nolan

I'm having to double as camp psychologist.
I keep in constant touch with a team of psychiatrists
at Oak Ridge.
Several of the younger scientists
are talking wildly of failure
and possible disaster.
Their fears are threatening
to infect the rest of the camp.

Two hours ago,
one young scientist became hysterical
and had to be removed
under sedation.

Groves

There is an air of excitement at the camp
that I do not like.

This is a time when calm deliberation
is most essential.

Oppenheimer is getting advice
from all sides on what he should
or should not do.

The best thing I can do is
introduce as much of an atmosphere
of calm as possible
into this very tense situation.

The main problem is the weather.
We have the best weathermen
the armed forces can give us.
Their predictions have always
been on the money.
The only time they've been wrong
is right now...on the day it counts.

Get them out of here.
From now on I'm making my own
weather predictions.

Oppie

General, you are bearing up
with remarkable fortitude.
Only your waistline is suffering.

Groves

I've been urged to take action.
As child I often ate great quantities of food,
Sweets and choc'late, and so forth.
This was a subject of concern to my mother
and to my stepmother.

I have here detailed diets that were,
at least in theory,
intended to be followed.

I did stick to one last August and September.
You can see my daily menus
and my weight.
Here, see:
On August 7 I weighed 227 pounds.
By September 24 I am down to 212.

All the menus are meticulously drawn up,
down to the last calorie.
In this particular diet
the average number of calories per day
is only one thousand twenty.
It would hardly keep a bird alive.
But then there's the two brownies—
200 calories
and on September 15
“3 pieces of chocolate cake—
300 calories.”

You don't look so good.
Get some sleep.
I'll turn in myself.
I want Kistiakosky, Bainbridge and Officer Bush
up on that bomb tower
to prevent potential sabotage.
Goodnight.

Oppie

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

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

Act II Scene 1

Kitty:

Wary of time O it seizes the soul tonight
I wait for the great morning of the west
confessing with every breath mortality.
Moon of this wild sky struggles to stay whole
and on the water silvers the ships of war.
I go alone in the black-yellow light
all night waiting for day, while everywhere the sure
death of light, the leaf's sure return to the root
is repeated in million, death of all man to share.
Whatever world I know shines ritual death,
wide under this moon they stand gathering fire,
fighting with flame, stand fighting in their graves.
All shining with life as the leaf, as the wing shines,
the stone deep in the mountain, the drop in the green wave.
Lit by their energies, secretly, all things shine.
Nothing can black that glow of life; although
 each part go crumbling down
 itself shall rise up whole.

Now I say there are new meanings; now I name
death our black honor and feast of possibility
to celebrate casting of life on life. This earth-long day
between blood and resurrection where we wait
remembering sun, seed, fire; remembering
that fierce Judaeen Innocent who risked
every immortal meaning on one life.
Given to our year as sun and spirit are,
as seed we are blessed only in needing freedom.
Now I say that the peace the spirit needs is peace,
not lack of war, but fierce continual flame.
For all men: effort is freedom, effort's peace,
it fights. And along these truths the soul goes home,
 flies in its blazing to a place
 more safe and round than Paradise.

Night of the soul, our dreams in the arms of dreams
dissolving into eyes that look upon us.
Dreams the sources of action, the meeting and the end,

a resting-place among the flight of things.

Orchestral interlude: “Lightning in the Sangre de Cristos”

Scene 2

[Seven month-old Katherine Oppenheimer awakens, crying]

Pasqualita:

(The Cloud-flower Lullaby)

In the north the cloud-flower blossoms,
And now the lightning flashes,
And the now the thunder clashes,
And now the rain comes down!
A-a-aha, a-a-aha, my little one.

Wilson:

It’s midnight, Jack.
There’s quite a fierce storm
going on up here.
I have a certain amount of respect...
ah...for that atomic bomb,
being right next to it.
Sparks seem to be flying.
Lightning is striking all around.

Hubbard:

Introducing considerations
the minimum specifications
under which this operation
can be conducted.
If you ask me,
testing this thing tonight
is a blunder of the first magnitude.

Wilson:

I’ve got to attach this canister
to the top of the tower.
...tubes to measure the speed
of the bomb’s chain reaction--
Rossi and I have been rechecking it
all night.
I have to have it all turned on

and test it before

You know, I'm really scared
about this object here in the tower.

A short while ago
a model of the X unit
fired spontaneously in a storm.

This weather is really something
you don't like be around
with a bomb nearby.
I'm leaving for my station
at North-10,000.

Hubbard:

The men in charge of monitoring
expected fallout
are prepared for two alternatives--
a "North Blow" or a "South Blow."
If the winds hold in their
current position,
the shelter at N-10,000
will be inundated
with radioactive debris.

Wilson:

I've dreamed the same dream
several nights running.
I'm almost at the top of the tower
and then I misstep,
and I'm falling,
a long, slow fall,
and each time, before I strike the ground,
I wake up sweating.

Pasqualita:

In the west the cloud-flower blossoms,
And now the lightning flashes,
And now the thunder clashes,
And now the rain comes down!
A-a-aha, a-a-aha, my little one.

Kitty:

To the farthest west, the sea and the striped country
and deep in the camps among the wounded cities

half-world over, the waking dreams of night
outrange the horrors. Past fierce and tossing skies
the rare desires shine in constellation.

I hear your cries, you little voices of children
swaying wild, nightlost, in black fields calling.
I hear you as the seething dreams arrive
over the sea and past the flaming mountains.

Pasqualita:

In the south the cloud flower blossoms,
And now the lightning flashes,
And now the thunder clashes,
And now the rain comes down!
A-a-aha, a-a-aha, my little one.

Groves:

A delay in issuing the Potsdam ultimatum
could result in a delay in the Japanese reaction,
with a further delay to the atomic attack on Japan.

[Oppenheimer rolls himself one cigarette after another and puffs them down to the ash.]

Groves:

Obviously, a reasonable time has to be allowed
for the Japanese
to consider the ultimatum.

Teller:

Fermi is taking wagers
as to whether the bomb will
ignite the atmosphere,
and if so,
whether it will destroy
just New Mexico
or the entire world.

Groves:

I fail to appreciate your black humor,
Doctor Teller.
This is exactly the kind of loose talk
that might paralyze
the enlisted men
with fright.

Oppie:

Edward's a great one
for oddball problems, General.

Teller:

I asked for and have obtained
a most important assignment,
one that many consider superfluous.
There had been some suggestions
that we might have miscalculated,
that the explosion could be much larger
than we had anticipated.
Might we not be setting off
A huge chain reaction that will
encircle the globe in a sea of fire?
It's my job to make a last check and review.

I've spent a great deal of time
indulging in controlled fantasies,
trying to dream up new,
undiscovered laws of nature
that a sudden release of atomic energy
might bring into play.
There was a possibility
that the test blast might touch off
a natural phenomenon that is not contrary
to our knowledge,
but perhaps beyond our experience.

In July, three years ago,
I made some of the initial calculations,
and my figures indicated
that the bomb would, indeed,
create enough heat
to ignite the earth's atmosphere.

Oppie:

You'll remember that
I immediately called a halt
to those meetings.
We asked Bethe about your numbers.
His calculations showed
that even the extreme pressures and temperatures
reached in the interior of our explosion
will not be high enough
to fuse the hydrogen with either

nitrogen or helium.
The Gadget won't set fire to the atmosphere.

Teller:

My revised figures agree with Bethe's.
I can find no reason to believe
the test shot will touch off
the destruction of the world,
no reason to think that
our advance calculations
are not entirely correct.

Oppie:

Edward, the test will be delayed an hour or more.

Teller:

The climax of our two-billion dollar experiment:
Will we have a "dud," a "fizzle" at Trinity?

[Everyone notices the rain.]

This drizzle is bone-chilling.
Here...I've brought
a bottle of suntan lotion.
Pass it around.

Hubbard:

The winds have actually shifted
a full 360 degrees in the last twelve hours.

Thundershowers and thirty-mile-an-hour winds
are raking the test site.

Pasqualita:

In the east the cloud-flower blossoms,
And now the lightning flashes...

Groves:

You are eight minutes late.

Hubbard:

General,
a night rain in a tropical air mass

behaves differently from a standard
southwestern afternoon storm.
This is no normal storm, sir.

Neither Bainbridge nor I
have slept in over two days.

There is still hope for a shot.

Maybe some time
between dawn at five A.M.
and sunrise at six.

Oppie:

Prepare to fire at five-thirty.

Act II SCENE 3 (Countdown Part I)

The final countdown begins at 5:10 A.M. with a crashing rendition of the “Star-Spangled Banner.” Just as Bainbridge gives the signal to Sam Allison in the control center, radio station KCBA in Delano, California, crosses wave lengths with the Trinity frequency. The station, operated by the Office of War Information, opens its morning Voice of America broadcast to Latin America. The National Anthem provides stirring accompaniment to the countdown announcement:

Groves:

The program has been plagued from the start
by the presence of certain scientists
of doubtful discretion and uncertain loyalty.
It was agreed in Washington
that nothing can be done
about dismissing these men
until after the bomb has actually been used,
or, at best, until after the test has been made.

Oppie:

O yes, Time has returned;
now Time reigns absolute;

Groves:

After some publicity concerning the weapon is out,
steps should be taken
to sever these scientists from the program
and to proceed with a general weeding out
of personnel no longer needed.

Oppie:

...and with the hideous old man
the whole of his demoniac retinue
has returned,
Memories, Regrets, Spasms, Fears,
Afflictions, Nightmares, Rages and Neuroses.

[Five year-old Peter Oppenheimer awakens.]

Kitty:

To keep the weakness secret. ,
To keep it secret
To deny it and break through.
In the dream of chieftains,
the corn distinct again in gold-white tuft-feathers.
The roads all paved, stony, savage;
the knocking in the chest resumed.
Your father has a passion for freedom
Rang and rang in the small boy's head.

Pasqualita:

Then word came from a runner, a stranger:
“They are dancing to bring the dead back, in the
mountains.”
We danced at an autumn fire, we danced the old hate and
change,
the coming again of our leaders. But they did not come.

Wilson:

I just finished reading *The Magic Mountain*
by Thomas Mann
and of course
to go to this mysterious mountain
on the top of which
there would be a secret laboratory
which we would go into,
the doors would slam shut
and a few years later
we would come out bearing
an atomic bomb...

Oppie:

I assure you that now the seconds are strongly and solemnly
accentuated and each one, spouting out of the clock, says:
“I am Life, insupportable, implacable Life!”

Pasqualita:

The winter dawned, but the dead did not come back.
News came on the frost, “The dead are on the march!”

We danced in prison to a winter music,
many we loved began to dream of the dead.
They made no promises, we never dreamed a threat.
And the dreams spread.

Kitty:

And love which contains all human spirit, all wish,
the eyes and hands, sex, mouth, hair, the whole woman—
fierce peace I say at last, and the sense of the world.

Oppie:

There is only one second in the life of men whose mission it
is to announce good news, the *good news* which fills every man
with an inexplicable fear.

Teller:

The only saviors are the ham sandwiches
and hot coffee.
We’ve got an informal betting pool going.
Everybody puts in a dollar—
whoever guesses the explosive yield
is a rich man.

Oppie:

I guess 300 tons of TNT.

Teller:

A very low estimate,
not much more than thirty ten-ton
blockbuster bombs—
in other words,
what you’re predicting
is we’ll get nothing more
than a fizzle.

Groves:

I confess my utter amazement
that these scientists are glooming
over their coffee cups

about their uncertainties
of the coming test.

Teller:

The bomb has a blackboard potential
of nearly twenty thousand tons.
That's twenty kilotons of TNT.

Oppie:

No one thinks for a minute
we'll achieve a yield like that.

Teller:

Bethe and Ulam guess small:
five to seven kilotons.
The scientists refuse to believe
what their own calculations tell them.

Groves:

I confess that I am not optimistic myself.
Maybe a forty-sixty chance of success.

Teller:

I alone scoff at my colleagues' pessimism.
I pick forty-five kilotons.

Chorus:

At the sight of this, your Shape stupendous,
Full of mouths and eyes, feet, thighs and bellies,
Terrible with fangs, O master,
All the worlds are fear-struck, even just as I am.

When I see you, Vishnu, omnipresent,
Shouldering the sky, in hues of rainbow,
With your mouths agape and flame-eyes staring—
All my peace is gone; my heart is troubled.

Act II Scene 4 (Countdown Part II)

Groves:

Lieutenant Bush.
Keep a weather eye on Oppenheimer.
There is concern our high-strung director
might have a breakdown

at the last minute.

Teller:

The radio connection with the control tower
is out of order,
and no one really knows
when the bomb will go off
or where to look for it.

The scientists are standing around in the dark
and munching candy bars as we wait
for some divine revelation
to tell us when the shot will go.

Oppie:

To what benevolent demon
do I owe the joy of being thus surrounded
with mystery,
with silence,
with peace
and with perfumes?

O beatitude!
That which we generally call life,
even when it is fullest and happiest,
has nothing in common

with that supreme life
with which I am now acquainted
and which I am tasting
minute by minute,
second by second!

No! there are no more minutes,
there are no more seconds!
Time has disappeared;
it is Eternity that reigns now!

[A green rocket arches in the sky to the south, slowly descends, flashes briefly, then dims and vanishes in the blackness. A siren sounds.]

Oppie:

That's their signal.
The shot will go
in five minutes.
Everyone should take his place
in the trenches.

Hubbard:

The sky is clear to the east
and over Ground Zero
and south ten-thousand.
But overcast to the west.
We have visibility
greater than sixty miles.
The surface wind
from the east southeast
is three to six miles per hour
below five hundred feet.
The rain has stopped.

Pasqualita:

In the summer dreaming was common to all of us,
the drumbeat hope, the bursting heart of wish,
music to bind us as the visions streamed
and midnight brightened to belief.

Kitty:

Dreamers wake in the night and sing their songs.
In the flame-brilliant midnight, promises
arrive, singing to each of us with tongues of flame:
“We are hopes, you should have hoped us,
We are dreams, you should have dreamed us.”
Calling our name.

Oppie:

Zero minus two minutes.
The two-minute warning rocket
has sputtered out prematurely.

Teller:

That was an ominous sign.

Oppie:

Lord, these affairs are hard on the heart.

END OF THE OPERA