

THE HEAT OF TEN THOUSAND SUNS

Episode 1 - "The Super"

Written by

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Based on a True Story

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For my grandparents:

Ernest Orlando Lawrence and Molly Blumer Lawrence

EXT. TRINITY TEST SITE - NIGHT

TITLE: **NEW MEXICO - JULY, 1945**

A storm has just passed, filling a pond in its wake.

Ecstatic frogs CROAK and copulate.

We pull back to see:

Spotlights illuminate a hundred-foot tower topped with a small hut.

Suddenly, the hut EXPLODES --

-- vaporizing the frogs.

EXT. COMPANIA HILL - NIGHT

From 20 miles away, four men in tailored suits and welding goggles watch as a bright mushroom cloud turns night to day.

ERNEST ORLANDO LAWRENCE (44) is tall and broad-shouldered, with thick blond hair and a gee-whiz grin.

He pounds the backs of EDWARD TELLER (37, bushy-browed, slathered in sunscreen) and RICHARD TOLMAN (64, distinguished).

ISIDORE RABI (47, short, genial) stares with worried disbelief, then shudders.

INT. BUNKER - NIGHT

A loudspeaker plays a tinny version of Tchaikovsky's "Serenade for Strings."

Only six miles from the explosion, military officers and scientists (a few of them women) crowd around the window slit. Some laugh, some cry. Most are silent.

GENERAL LESLIE GROVES (49, stout) watches with satisfaction.

ENRICO FERMI (41, exhausted) and JOHN VON NEUMANN (42) study the blast with scholarly detachment.

EXT. BUNKER - NIGHT

FRANK OPPENHEIMER (33) lies facedown in a trench.

Lying next to him is his brother:

J. ROBERT OPPENHEIMER (41, ethereally thin, with the face of a fallen angel). He lets out the breath he's been holding.

The bright light reflects off the sand underneath him, making his ice-blue eyes glow under his signature pork-pie hat.

The fireball fades, filling the air with a purple glow.

Then the SHOCK WAVE hits. Clods of dirt fly overhead.

The thunderous ROAR comes last, echoing off the distant mountains -- "the first cry of a newborn world."

EXT. UNIVERSITY OF CALIFORNIA, BERKELEY (1946) - DAY

Bells GONG from the top of the Campanile tower.

TITLE: THE UNIVERSITY OF CALIFORNIA

BERKELEY, CALIFORNIA

14 MONTHS LATER

A passing roadster's radio blares a peppy JAZZ TUNE.

Students go in and out of LeConte Hall.

INT. LECONTE HALL - DAY

The halls are lined with display cases highlighting faculty achievements -- including Lawrence's Nobel Prize.

Magazine covers feature pictures of Lawrence and Oppenheimer.

INT. CLASSROOM - DAY

Oppenheimer sits on a desk, chain smoking, lecturing in front of a blackboard filled with physics equations.

Some students seem rapt; others are bored or frustrated.

One student stares wistfully out the open window at a large, round, domed building nestled in the Berkeley hills.

INT. RAD LAB, U.C. BERKELEY - DAY

The round building's dominated by a giant cyclotron.

The same jazz tune plays on a transistor radio.

Lawrence tinkers happily alongside colleagues and students, including LUIS ALVAREZ (35).

INT. TOLMAN HOUSE, PASADENA - NIGHT

The same tune carries us to a faculty party.

RUTH TOLMAN (53, blond, sweet-faced, elegant) opens the door to Lawrence and his wife MOLLY LAWRENCE (36, tall, sensible, pregnant).

RUTH TOLMAN
Ernie! Molly! So glad you made it!

She greets them with air kisses and ushers them into the

LIVING ROOM

RUTH TOLMAN (CONT'D)
I hope the drive down wasn't too brutal. I'm sorry we couldn't offer you the guest house, but Robert's using it this weekend...

She indicates the bar, where Oppenheimer's mixing martinis under a Cal Tech pennant, surrounded by female admirers.

Richard Tolman comes to grasp Ernest's hand.

RICHARD TOLMAN
Hopefully we'll get a chance to talk shop later, if we can pry Oppie away from his fan club...

He leads Lawrence toward the bar.

INT. LECONTE HALL - DAY

Lawrence leads LEWIS STRAUSS (50) and DAVID LILIENTHAL (47) past the exhibit cases.

Strauss is owlish and urbane, with glasses and thinning grey hair, wearing a well-cut double-breasted suit.

Lilienthal's bald and has an intelligent, humorous face.

They stop at a display on nuclear medicine.

STRAUSS

(Virginia accent)

I'm very impressed with the work
your brother's doin' on the
therapeutic uses of radiation.

LAWRENCE

(midwestern accent)

The isotopes cooked up in our labs
get sent all over the world.

STRAUSS

You think that's wise?

LAWRENCE

Knowledge is the common heritage of
humanity. If we know how to cure a
disease, how can we in good
conscience keep that from others?

Lilienthal nods in agreement, but Strauss shows a flicker of
distaste as he moves to the next display.

INT. CLASSROOM - DAY

Oppenheimer's writing equations on the board. He and his
students look up as Lawrence enters at the back of the room
with Strauss and Lilienthal.

LAWRENCE

Sorry to disturb you. This is
Admiral Strauss and Mr. Lilienthal
of the new Atomic Energy
Commission. I'm just givin' 'em the
grand tour.

[NB: "Strauss" is pronounced "Straws."]

Oppenheimer nods curtly in response.

LAWRENCE (CONT'D)

(jovially)

We had to double Oppie's pay to get
him back in the classroom after Los
Alamos. Now I can clip his wings a
little.

The AEC men chuckle, but Oppenheimer bristles.

Strauss gazes longingly at the board.

STRAUSS

(quietly)

I wanted to study physics myself,
but it wasn't to be... My parents'
business took a turn for the worse
and I ended up sellin' shoes 'stead
of goin' to college...

Lawrence takes in Strauss' expensive suit as he leads him
back out of the room.

LAWRENCE

(smiling)

Well, you've done all right for
yourself...

LILIENTHAL

(under his breath)

Didn't hurt to marry the boss's
daughter...

Strauss hears him, and his eyes go cold.

INT. CYCLOTRON BUILDING - DAY

Lawrence gazes fondly at his baby as Alvarez and others
tinker with the equipment.

LAWRENCE

This is our 184-inch
synchrocyclotron. As you can see,
it's an improvement on my original
model, which was about the size of
a dessert plate.

The men chuckle.

LAWRENCE (CONT'D)

With it, we can produce a beam of
200-million-volt deuterons.

LILIENTHAL

And what does that get you...
exactly?

LAWRENCE

It lets us transmute elements.

STRAUSS

(reverently)

Like alchemists...

LAWRENCE

You just have to bombard the appropriate target with a deuteron beam. If you start with lithium-6, you get tritium. And if you start with uranium --

He pauses, significantly.

LAWRENCE (CONT'D)

You get plutonium. That's what we used at Nagasaki.

The AEC men are suitably impressed.

Lawrence takes them over to join Alvarez.

LAWRENCE (CONT'D)

This is Luis Alvarez -- my right-hand man here at the Rad Lab.

Alvarez shakes hands with the AEC men.

LAWRENCE (CONT'D)

Admiral Strauss and Mr. Lilienthal...

ALVAREZ

Nice to meet you...

LAWRENCE

Luie's working on an even bigger machine, 120 feet in diameter. That should be able to hit six BILLION volts...

Strauss whistles his appreciation.

LAWRENCE (CONT'D)

We're calling it the "Bevatron."

LILIENTHAL

(eying the giant machine)

What do you expect to discover with it?

LAWRENCE

If we knew that in advance, there wouldn't be any sense in building the darn thing!

Strauss chuckles, but Lilienthal looks slightly troubled.

INT. TRADER VIC'S - NIGHT

The table's littered with "PuPu Platters" and cocktails. There's a din of drunken conversations and "Polynesian" music.

Lawrence, Oppenheimer, Alvarez, Strauss, and Lilienthal sit with Molly Lawrence, KITTY OPPENHEIMER (36, compact and fierce), and other scientists and AEC commissioners.

STRAUSS

Henry Luce is a good friend of mine... I'm sure he'd love to print a letter from you in support of my ideas...

Lawrence smiles but shakes his head.

LAWRENCE

I think I'll be more useful keeping out of public discussions and sticking to my knitting in the lab.

He sips his Mai Tai.

LAWRENCE (CONT'D)

But one thing I will say... I think you A.E.C. fellas oughta get away from this weapons business. It's perfectly possible right now to build reactors to light bulbs.

He gestures at the nearest lamp.

LILIENTHAL

Really? How would that work?

Lawrence takes out a pen and sketches on a menu.

LAWRENCE

You gotta get your feet wet with something, even if it's only a Model-T.

Strauss tunes them out as he sees Oppenheimer head for the men's room. He gets up to follow.

STRAUSS

(overlapping)
Excuse me. Nature calls...

MEN'S ROOM

Oppenheimer's standing at the urinal.

Strauss joins him at the adjacent one and relieves himself.

STRAUSS (CONT'D)

I was hopin' to get a chance to
talk with you privately...

Oppenheimer's in no mood for chat -- and certainly not here.

STRAUSS (CONT'D)

In addition to my duties for the
A.E.C. I'm a trustee of the
Institute for Advanced Studies in
Princeton. We're lookin' for a new
director.

Oppenheimer's interested but plays it cool. He zips up his
fly and flushes.

OPPENHEIMER

(cultured New York accent)

And what kind of person are you
looking for?

STRAUSS

Well, Professor Einstein told me to
pick "a very quiet man who will not
disturb people who are tryin' to
think."

Oppenheimer smiles at that.

STRAUSS (CONT'D)

Didn't say I agreed with him.

He gets down to business.

STRAUSS (CONT'D)

Pay's twenty grand a year. Comes
with a ten-bedroom house, barn and
corral. You and Mrs. Oppenheimer
like to ride, I believe.

Oppenheimer washes his hands.

STRAUSS (CONT'D)

Other than Einstein it's a second-
rate institution. But a man of your
stature could make it first-rate.

Oppenheimer considers this.

OPPENHEIMER
 You understand there's some...
 derogatory information about my
 past.

Strauss waves that away.

STRAUSS
 What do you say?

OPPENHEIMER
 I'll have to think about it.

He dries his hands and leaves.

Strauss looks put out by this tepid response.

STRAUSS
 (to himself)
 You do that...

INT. OPPENHEIMER HOME - NIGHT

Oppenheimer looks in on their sleeping children: PETER (6)
 and TONI (3).

BEDROOM

Kitty's quite drunk. Oppenheimer helps her unzip her dress.

OPPENHEIMER
 I'm tired of spending all my time
 on planes. It'd be much more
 convenient for my work with the
 G.A.C. in Washington...

KITTY OPPENHEIMER
 (slurring)
And you'd be out from under
 Ernie...

OPPENHEIMER
 He thinks scientists should only
 think about science... But I want
 to deal with the whole of the human
 condition.

Kitty scoffs and rolls her eyes.

OPPENHEIMER (CONT'D)
 There are no labs. No students. I
 wouldn't have to teach. There'd be
 no excuse for not doing good work.

Kitty flops on the bed in her slip and lights a cigarette. The bed linens have several burn holes.

OPPENHEIMER (CONT'D)
They have top mathematicians like von Neumann and Gödel, but other than Einstein --

KITTY OPPENHEIMER
(sarcastically)
"Other than Einstein..."

OPPENHEIMER
(smiling)
He's more of a patron saint than a working scientist. A... landmark -- not a beacon.

Kitty chuckles at that.

OPPENHEIMER (CONT'D)
But I could turn it into a major center for theoretical physics. At least half a dozen students I could bring from here...

KITTY
(sleepily)
Ernie won't like that...

Oppenheimer turns to answer, then sees that she's passed out - - dropping the lit cigarette on the bedclothes.

He retrieves it and snubs it out in the ashtray.

EXT. STINSON BEACH - SUNSET

Rustic houses cling to the wooded hillsides.

EXT. CHEVALIER HOUSE - SUNSET

Oppenheimer sits in a deck chair next to HAAKON CHEVALIER (45, French-Norwegian, blond), sipping cocktails and watching the setting sun.

OPPENHEIMER
The center of the fireball... was more than ten thousand times as hot as the surface of the sun....

