

BAADE'S WARTIME ASSISTANT

An original audio script by  
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PRODUCTION SCRIPT  
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SCENE ONE: INT. ATTIC - SPRING DAY in 1953  
(CHARLIE)

SOUND: Rustling through boxes.

CHARLIE: (YELLING TO HIS MOTHER DOWNSTAIRS) Mom,  
where was that box of old letters you said  
was up in the attic?

SOUND: More rustling.

CHARLIE: Oh, wait, I think I see it.

SOUND: Opening a box, rustling of papers.

CHARLIE: (TO HIMSELF) I can't believe Mom kept these  
letters for so long. Those dark war years  
seem so long ago. But finally Dr. Baade has  
published the results of our work at the  
observatory. Look, here's the first letter  
I wrote Mom from California.

MUSIC: Transition music; possibly holiday music.

SCENE TWO: INT. SMALL BOARDER'S ROOM - CHRISTMAS DAY 1941  
(CHARLIE)

SOUND: Paper loading into an old typewriter.

SOUND: IN THE BACKGROUND, UNDER CHARLIE'S SPEECH:  
whirring keys of an old typewriter. THE

CADENCE OF THE KEYS SHOULD MATCH CHARLIE'S  
WORDS.

CHARLIE:

(TALKING AS HE TYPES) December 25, 1941.

Dear Mom, Happy Christmas! I made it safely to the observatory and settled into a small boarder's room. I'm sorry I left before the holiday, but I couldn't pass up this job.

I know you worry about me being so close to the coast. Just be glad that my bum leg is keeping me Stateside, because I'd be overseas fighting if I could. Everyone here is shaken up over Pearl Harbor, so they are taking precautions to make the coast hard to see at night.

I met with Dr. Baade yesterday - the astronomer I told you about. He seems like an ordinary man, and I almost forget I'm talking to the man who helped discover supernovae.

Missing your Christmas pudding tonight.

Please send my best to everyone.

Much love, Charlie.

**SOUND:** The typewriter keys stop.

**SOUND:** Sound of paper pulled out from the typewriter.

**MUSIC:** Transition music, again, perhaps holiday music here.

**SCENE THREE: INT. ATTIC - SPRING DAY in 1953**  
(CHARLIE)

**SOUND:** Rustling paper.

**CHARLIE:** (TO HIMSELF) Oh, and here's the letter from that quiet summer at the observatory.

**MUSIC:** Transition music.

**SCENE FOUR: INT. SMALL BOARDER'S ROOM - SUMMER AFTERNOON IN 1942**  
(CHARLIE)

**SOUND:** Paper loading into an old typewriter.

**SOUND:** IN THE BACKGROUND, UNDER CHARLIE'S SPEECH: whirring keys of an old typewriter. THE

CADENCE OF THE KEYS SHOULD MATCH CHARLIE'S WORDS.

CHARLIE:

(TALKING AS HE TYPES) August 11, 1942. Dear Mom, the observatory is so quiet. Most scientists have taken leaves. They must be going off to help the military. Even Dr. Hubble has left, leaving the telescope wide open for Dr. Baade's observations. The observatory director arranged special dispensation for Dr. Baade to stay at the observatory during curfew hours, despite his status as an "enemy alien".

Dr. Baade worries about his family and friends in Germany. His mother was not well when he visited three years ago. He fears she has not fared well through the war. I worry about old schoolmates overseas. You've already send word of so many who have not made it back. So, Dr. Baade and I try to soothe our worries by discovering secrets of the heavens.

Much love, Charlie

**SOUND:** The typewriter keys stop.

**SOUND:** Sound of paper pulled out from the typewriter.

**MUSIC:** Transition music.

**SCENE FIVE: INT. ATTIC - SPRING DAY in 1953**  
(CHARLIE)

**SOUND:** Rustling paper.

**CHARLIE:** (TO HIMSELF) With the senior scientists gone, we could observe every clear night. It still took over a year to hit paydirt...I know I wrote Mom a letter that day...here it is.

**MUSIC:** Some kind of transition music.

**SCENE SIX: INT. SMALL BOARDER'S - SUMMER MORNING IN 1943**  
(CHARLIE)

**SOUND:** Paper loading into an old typewriter.

**SOUND:** IN THE BACKGROUND, UNDER CHARLIE'S SPEECH: whirring keys of an old typewriter. THE CADENCE OF THE KEYS SHOULD MATCH CHARLIE'S WORDS.

CHARLIE:

(TALKING AS HE TYPES; EXCITEDLY) AUGUST 27, 1943. Dear Mom, we did it! The conditions came together perfectly last night!

Dr. Baade has been on the telescope every clear night for the last year. The blackouts in L.A. give us very dark skies, and Dr. Baade stays with the telescope all night to adjust the focus.

It paid off tonight! We saw individual stars in the center of Andromeda. No one has seen these stars before! What's more, we didn't see any supergiant stars on the plates. Supergiant stars are very bright, so they should be seen in such a detailed observation. But our observation plate is sensitive to red light, so maybe these stars put off more blue light than red.

I know you might not understand this Mom, but since we won't publish until Dr. Baade can do further observations, you are the only person I can tell. I'm almost too

excited to sleep, but I must try - because we have more observing tomorrow night!

Much love, Charlie

**SOUND:** The typewriter keys stop.

**SOUND:** Sound of paper pulled out from the typewriter.

**MUSIC:** Some kind of transition music.

**SCENE SEVEN: INT. ATTIC - SPRING DAY in 1953**  
(CHARLIE)

**SOUND:** Rustling paper.

**CHARLIE:** (TO HIMSELF) We had several more nights with similar successes. I had no idea that the results of our work would double the size of the Universe, though!

It took a decade for Dr. Baade to work out the results and perform follow up observations to his satisfaction, but there were the results in the paper yesterday. And I was there. I suppose that was a good way to spend the war, since I couldn't

fight. I helped double the size of the  
Universe!

**MUSIC:** Some kind of closing music.

**CREDITS:** This piece is a product of the Cosmic Times Team at NASA's Goddard Space Flight Center in Greenbelt, Maryland. The performance was produced by the 2009/2010 Chesapeake High School Media Production Club, WCHS, in Pasadena, Maryland. Featured was the voice of Robert, and Andy was at the controls of the audio mixer. We'd like to give a special thanks to Ms. Geri Cvetic, the faculty advisor for WCHS. More information about Cosmic Times and the topics in the piece can be found on our website, [cosmictimes.gsfc.nasa.gov](http://cosmictimes.gsfc.nasa.gov).

**THE END.**

## Notes for Baade's Wartime Assistant

### Pronunciation note:

Baade is pronounced bah-duh

### Casting:

For most of the audio pieces the parts can be played by either male or female voices, but for this piece, a male voice would be best - it is unlikely that Baade would have had a female telescope assistant

### Sound effects:

The typewriter sounds are like the one here:

<http://www.audiosparx.com/sa/summary/play.cfm/sound iid.198789>

[we may have to buy some sound effects, but I think that's okay, given our budget - for example, this sound effect is \$8.95 for commercial and personal use.]

Even better, I found another site that has royalty-free individual typewriter sounds, like loading and unloading paper, along with typing, spacebar and carriage return:

<http://www.soundjay.com/typewriter-sounds.html>

The site asks for credit, or a link-back, but it's not necessary.

### Music:

We need some music or something as an intro and between scenes - not sure what, and am open to suggestion.

It might be best for the music to sound a bit like something you'd hear in the '50s, since that's when this piece is set.

Also, for the intro to SCENE 2, we might think about using some holiday music.

### Sources:

- Walter Baade's Wikipedia page:  
[http://en.wikipedia.org/wiki/Walter\\_Baade](http://en.wikipedia.org/wiki/Walter_Baade)
- Walter Baade: Biography from Answers.com:  
<http://www.answers.com/topic/walter-baade>
- *Walter Baade: A Life in Astrophysics* by Donald E. Osterbrock:  
<http://books.google.com/books?id=iXaBaXwRrQC&pg=PR4&sig=zx3oGrVyv0Vyc-EBD7yLuMIeWs#v=onepage&q=&f=false>