

Jacob Gust

Research for *Silent Sky*

Time Period: Early 20th century

Real Locations: The play opens in Wisconsin at the Leavitt home but transitions to the Harvard College Observatory in Boston. Some brief scenes take place on a cruise ship but that is more of a spiritual location rather than a physical one.

Real People: Henrietta Swan Leavitt, July 4, 1868 - December 12, 1921.

The Henrietta Leavitt in the play is based off of the actual astronomer sharing the same name. Much of the overall plot is based off of her achievements with a love story and other topics added to make it more relatable and entertaining. The real Henrietta was born in Massachusetts but both share a religious father. Henrietta also attended Radcliffe which the play makes sure to mention between witty exchanges.

Williamina Fleming, May 15, 1857 – May 21, 1911.

Once again, based off of the real astronomer. The fun story about how she started as Pickering's maid fresh off the boat before being hired as a “computer” at the observatory is actually a true fact.

Annie Cannon, December 11, 1863 – April 13, 1941.

Another very real astronomer based character. She too was one of the members at the Harvard College Observatory and was the creator of the star classification that was mentioned several times in the play itself. Although she may not have been such an important role in the women's suffrage movement,

Ms. Cannon was often criticized for choosing not to be a housewife like many women of the time.

Music Qualities: We wanted to focus the music around standard orchestral instruments including Cello, Clarinet, Horn, and Violins. The time period would fall under the Impressionist movement of music history. Some characteristics of the time would be applying focus on the tone timbre of the music, the atmosphere of the music, and the fluidity of the music. In addition to keeping a period correct musical quality, we wanted to include influences of Bach. This would make the music a little more simpler and stark. We also needed to create a sound of a star twinkle. Although real stars don't make a twinkling sound, we opted to go for the sound of the glass harmonica. We did not have access to the instrument so we created a synth to mimic the glass disks. We based our sound around the glass harmonica Benjamin Franklin created.

Sounds of Space: We spent several hours researching the sound and characteristics of deep space. Our director wanted absolute silence at the start but after talking to him more, we were able to convince him to let us create a sound of space. I had the opportunity to research the Voyager mission from NASA. They mounted special hardware to the spacecraft that transmitted frequency data back to Earth. Some researchers at NASA took this data and programmed a series of synths to play the changes in frequency. NASA referred to this by the sound and music of space. Most of these recordings are in the public domain so as an interesting piece of trivia we decided to include real space in our sound of silence.