

SILENT SKY

a play by Lauren Gunderson

directed by **Cindy Gendrich**

WAKE FOREST
UNIVERSITY THEATRE
PRESENTS



March 31-April 2 & 5-8, 2023
Tedford Stage



WAKE FOREST
UNIVERSITY

DIRECTOR'S NOTE

This play, about friends and families, science and music, was a natural for me in so many ways. My childhood home was filled with music, and in fact, mirroring *Silent Sky*'s Margaret, my sister Julie is a musician and one of my best friends. My dad was a biochemist and a music lover, and his workplace was filled with male scientists and female secretaries. Working on this play about early 20th C. women scientists, I realized that I didn't even know a female scientist until the 1980s, when I was in college. I can only imagine how much harder it must have been, almost a hundred years earlier, to be taken seriously as one.

Silent Sky's beautiful fusion of music and science may have reminded me of my childhood home, but it is actually a centuries-old combination. Karl Paulnack, a music professor at Ithaca College observed,

The ancient Greeks said that music and astronomy were two sides of the same coin. Astronomy was seen as the study of relationships between observable, permanent, external objects, and music was seen as the study of relationships between invisible, internal, hidden objects. Music has a way of finding the big, invisible moving pieces inside our hearts and souls and helping us figure out the position of things inside us.

Luckily theatre tends to blend both, helping us locate those big, invisible feelings, and also tying them to a real, observable world. Lauren Gunderson has done this masterfully in *Silent Sky*, reminding us of the permanent contributions made by the women of the Harvard observatory, while also telling a funny and emotional story of sisters and friendships, hearts and souls.

Rob Eastman-Mullins, my brilliant scenic design colleague, and I pitched *Silent Sky* for his aWAKEN international scenic design competition over two years ago, and it's taken us on a fabulous ride. Big thanks to our supportive colleagues, all the amazing students—including actors, designers and design assistants, and my fabulous stage management staff (Lydia, what will I do without you??)--as well as my ubertalented design and shop colleagues. Gratitude too, to all the amazing specialists who helped: dialect coach Leah Roy, choreographer Adina Howard, and intimacy coach Brook Davis. Special thanks to my terrific colleague, Dr. Eric Carlson, who was kind enough to come by and talk to us about astronomy, to playwright Lauren Gunderson, who zoomed in with great advice, as well as to Héba Hicham Elkomy, who has come all the way from Egypt, showering us with her virtuosic scenic design skills. And finally, thanks in advance to all the panelists joining us throughout the run of the show, and to you, the audience, for being with us here tonight, to share in the wonder of Lauren's luminous play. We hope you enjoy!

INFORMATION

In consideration of everyone in the theatre, especially the cast who have rehearsed for weeks, please observe the following:

- ♦ Audience members are encouraged to wear a mask (available at the box office upon request).
- ♦ Turn off and put away your cell phone or any device that might ring, buzz, or light up.
- ♦ Laptops are not allowed; pens and paper are great alternatives for taking notes.
- ♦ Copyright laws prohibit recording in any format of any performance. Flash photography can be especially hazardous to performers and a distraction to the rest of the audience.
- ♦ Eating and drinking (other than water) are never allowed inside the theatre.

Thanks, and enjoy the show!

The show runs approximately 2 hours with one 15-minute intermission.

Wake Forest University Theatre presents

SILENT SKY

by Lauren Gunderson

March 31-April 2 & 5-8, 2023

Director

Cindy Gendrich

Scenic Designer

Héba Hicham Elkomy

Costume Designer

Clare Parker

Lighting & Projections Designer

Kevin Frazier

Sound Designer

Corey Gilliam

Additional Digital Animations

Will Lowry

Lead Properties Artisan

Evan Daane ('23)*

Dialect & Vocal Coach

Leah Elyce Roy

Intimacy Choreographer

Brook Davis

Waltz Choreographer

Adina Harper

Assistant Director

Jordi Keller ('24)*

Stage Manager

Lydia Evans ('23)*§

CAST

HENRIETTA LEAVITT.....	Cameron Michles*§
MARGARET LEAVITT.....	Lauren Veldhuizen*§
PETER SHAW.....	Patrick Fenlon*
ANNIE CANNON.....	Sophie Thomas*§
WILLIAMINA FLEMING.....	Ellie Howell*
UNDERSTUDY (MARGARET & WILLIAMINA).....	Maggie Payne*
UNDERSTUDY (HENRIETTA & ANNIE).....	Melinda Cheatham

*Anthony Aston Players member

§Presidential Scholar in Theatre

Silent Sky is presented by special arrangement with Dramatists Play Service, Inc., New York.

Commissioned and first produced by South Coast Repertory with support from
the Elizabeth George Foundation.

BIOGRAPHIES OF THE *SILENT SKY* ASTRONOMERS



Annie Jump Cannon was encouraged by her parents, especially her mother, to take an interest in science at a young age. She pursued her education in science and math, and graduated as valedictorian at Wellesley College with a major in Physics. Following college, she focused on photography and traveling and even published a book of photography in 1893 as a souvenir for the World Fair in Chicago. She returned to Wellesley for graduate studies in astronomy after her mother, who inspired her love of science, passed away. Cannon then enrolled in classes at Radcliffe College so she could use Harvard's telescopes. In 1896, she became one of the "women computers" at the Harvard Observatory, where she settled a debate on how to classify stars by their color, temperature, and size. This system became known as the Harvard Standard and was officially adopted by the International Astronomical Union in 1922.

The system is still used today with minor changes. In 1901, she became Head of Photometry after her first paper was published. She classified over 350,000 stars in her lifetime – a record she still holds today – and discovered 300 variable stars, five novae, and one binary system. She was the first woman to receive a doctorate degree in astronomy from Groningen University and the first to receive the Henry Draper Medal of Honor from the National Academy of Sciences in 1931. When she received the Ellen Richards Research Prize, she gave it to the American Astronomers' Society to create an annual award for the year's most prominent female in the field, which is called the Annie Jump Cannon Prize. Not only did she make lasting contributions to astronomy, she tirelessly championed equal rights for women. She took part in the suffragist movement and represented working women at the 1933 World Fair. She was the first woman to be appointed the William C. Bond Chair of Astronomy at Harvard University and was still classifying stars at the observatory until she died at the age of 77.



Williamina Fleming was born in Scotland and took a job as a pupil-teacher at the age of 14 to help support her large family after her father's death. In 1878, she emigrated to the United States. Soon after though, she found herself pregnant and abandoned by her husband in a new country and took a job to work as a maid in Dr. Edward Pickering's home, where she impressed her employers. After Pickering became unsatisfied with the work of his male staff, he declared his maid could do a better job. Thus, he hired Fleming to work as a computer at the Harvard Observatory. She developed a complex system to classify stars that was later improved upon by her colleague Annie Jump Cannon. When the group began working on the Henry Draper Catalogue of stars, she classified over 10,000 stars in nine years. She discovered more than 300 variable stars, 59 gaseous nebulae, ten novae, and the Horsehead Nebula located in Orion's belt, as well as becoming one of the first to recognize the

existence of white dwarf stars. Additionally, she served as the observatory's writer, editor, and proofreader for their research papers, reports, data tables, and books. In 1899, she became the Curator of Astronomical Photographs at Harvard and managed dozens of other computers at the observatory. She was the first American woman granted honorary membership into the Royal Astronomical Society.



Henrietta Swan Leavitt was born in Massachusetts in 1868, the eldest of seven children. After a childhood illness believed to be scarlet fever, she was left with severe hearing damage for most of her life. She received her bachelor's degree in 1882 from Radcliffe College, the female counterpart to Harvard University. While studying for her master's degree in 1893, she went to work under the direction of Dr. Edward Pickering at the Harvard Observatory as a computer. Much of her work there concentrated on Cepheid variables, stars that go through periods of relative brightness and dimness. In her published 1908 paper, "1777 Variables in Magellanic Clouds," she explained that the longer the cycle, the greater the brightness. This was known as the "period luminosity relation" and later as "Leavitt's Law," and was used to measure the distance of stars. Later in her 1912 paper "Periods of 25 Variable Stars in the Small Magellanic Cloud," in which she confirmed her previous findings, other

astronomers began using these variables as standards. Her discoveries paved the way for the Universe to be measured and mapped, and for Edwin Hubble to discover that the universe is expanding. A Swedish mathematician, Gösta Mittag-Leffler, tried to nominate her for a Nobel Prize for her work, only to discover she had died from cancer three years earlier, in 1921.

GLADDING ARTIST FACULTY AWARD

We are delighted to announce that Dr. Cindy Gendrich, Professor of Theatre and Director of this production of *Silent Sky*, is the inaugural recipient of the Gladding Artist Faculty Award. Established by the beloved late Professor of Counseling Dr. Sam Gladding, '67, '71, the Gladding Authors, Editors and Artists award is presented to members of the faculty at Wake Forest who are book authors or editors, or fine or performing artists and whose works have been published or produced more or less within one year preceding the awarding of the prize. In 2022, Dr. Gendrich directed *Up and Away* at the Rose Theatre in Omaha, a delightful play that honors and provides a neurodiverse theatre experience for children. She was unanimously recommended for this award by the Interdisciplinary Arts Center's (IAC) advisory board, who wish to also acknowledge her tremendous leadership as director of the Interdisciplinary Performance and the Liberal Arts Center, (IPLACe) for 10 years from 2010-2020. Congratulations, Cindy!

-Christina Soriano

Vice Provost for the Arts and Interdisciplinary Initiatives, Associate Professor of Dance

POST-PERFORMANCE DISCUSSIONS

Join us for a series of post-performance discussions about the production or topics related to *Silent Sky*.

- ◆ Friday, March 31 - The discussion will include Cindy Gendrich, Rob Eastman-Mullins, and Héba Hicham Elkomy as they talk about the aWAKEn International Scenic Design Competition.
- ◆ Friday, April 7 - A discussion about women in the sciences will include Dr. Susan Wentz, Dr. Rebecca Alexander, Dr. Carol Milligan, and Dr. Lauren Lowman.
- ◆ Saturday, April 8 - Playwright Lauren Gunderson will discuss her work with the audience.

Admission to these events is free and open to the public. Audience members are encouraged to attend. Each panel will begin shortly after the performance ends.

PRODUCTION STAFF

Director of Theatre.....	Corey Gilliam
Technical Director.....	Thomas Williams
Costume Studio Manager.....	Alice Burton Barsony
Costume & Wardrobe Technician.....	Jacquelyn Loy
Audience Services Coordinator.....	Leslie Spencer
Academic Coordinators.....	Lara Ianni, Lu Anne Simpson
Assistant Stage Managers.....	Alyssa Cheng*, Hannah Reynolds*
Scenic Design Coordinator.....	Rob Eastman-Mullins
Scenic Charge Artist.....	Riley Shanaghan**
Scenic Painters.....	Zewen Ma*, Nicole Liu*, Gabby Miller*‡ Katherine Collie*, Yue Yu, Celina Seo* Mary Grace Gower*, Sarah Cadena*, Flower Morejon
Computer Numerical Control Programming & Assembly.....	Rob Eastman-Mullins
Assistant Sound Designer.....	Vir Gupta*
Associate Lighting Designers.....	Nicole Ruisi Liu*, Evan Souza**
Production Electrician.....	Kevin Frazier
Electricians.....	THE 150 Class, Evan Souza*, Nicole Liu*, Cameron Michles*, Abigail Richardson, Elsa Maurizi, Vir Gupta*
Scene Shop Assistants.....	Evan Daane*, Sophie Thomas*, Drew Skilton*, Celina Seo* Sarah Cadena*, Riley Shanaghan*‡, Thomas Bauserman Zewen Ma*, Yue Yu, Gabby Miller*‡, Ruisi Nicole Liu*
Costume Studio Assistants.....	Alexandra Battisti*, Tatiana Bicalho, Isabelle Merrifield Nicole Namath, Emily Patten, Maggie Payne*, Hannah Riley
Wardrobe Assistant.....	Ananya Bali*
Hair Designers.....	Jaidan Chambers, Emily Kohn
Production Crew.....	Nathaniel Avery*, Margaret Williams
Light Board Operator.....	Gabe Edelstein
Sound Board Operator.....	Xander Friedel*
Projections Operator.....	Zali Lawrence
Photographers.....	Ken Bennett, Lyndsie Schlink Bill Ray III, Katie Fox*
Social Media Assistant.....	Zac Anderson**
House Managers.....	Hope Peterson ('17, MS '18), Chris Cates ('22) Devin Collins, Sarah Goncalves, Evan Lipetz
Box Office Staff.....	Zac Anderson*, Joey Crane, Evan Lipetz James Oparinde, Frances Gray Riggs*, Noah Stoycos
Ushers.....	Anthony Aston Players, APO Service Fraternity WFU Dance Company, Theatre & Dance students

*Anthony Aston Players member

‡Presidential Scholar in Dance

§Presidential Scholar in Theatre

SPECIAL THANKS

Dahlia Al-Habieli
Dr. Rebecca Alexander
Dr. Eric Carlson
Rob Eastman-Mullins
Héba Hicham Elkomy
Lauren Gunderson
Vir Gupta

Beth Homan
Dr. Lauren Lowman
Dr. Carol Milligan
Molly Olson
Sofia Pantouvaki
David Phillips
Eduardo Sicangco

Christina Soriano
Dr. Susan Wenthe
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[‡] Wake Forest alumni

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directed by Chris Martin

April 20-21 at 7:30 PM

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Harold C. Tedford Stage

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