



The Secular Circular

Newsletter of the Humanist Society of Santa Barbara

www.SBHumanists.org

APRIL 2025

Please join in person OR on Zoom for our April event...

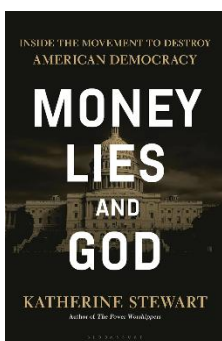


Katherine Stewart: Inside the Movement To Destroy Our Democracy

Our Program: A Movie and an Expert! On Sunday, April 13, at 2:00 pm Pacific, we'll play the 90-minute documentary, *God & Country*, based on Katherine Stewart's book, *The Power Worshippers: Inside the Dangerous Rise of Religious Nationalism*, followed by a short break.

Then, at approximately 3:45 pm Pacific, Katherine Stewart will join us **in person** to share her thoughts about the documentary and her current thinking as expressed in her new book, [*Money Lies and God: Inside the Movement to Destroy American Democracy*](#).

Here is the [New York Times review](#) of *Money Lies and God*. Ms. Stewart's books will be available for purchase, courtesy of Tecolote Book Shop.



Our Speaker: Katherine Stewart has been writing about the intersection of faith and politics, policy, education, and the threat to democratic institutions for over 15 years. Her work has appeared in *The New York Times*, *New Republic*, and the March 2025 issue of *Freethought Today*, among many others. She has appeared on CNN, MSNBC, and NPR. **See her interview in the**

***Santa Barbara Independent*, week of March 27-April 3.**

Her previous book, [*The Power Worshippers: Inside the Dangerous Rise of Religious Nationalism*](#), was awarded first place for Excellence in Nonfiction Books by the Religion News Association as well as a Morris D. Forkosch award. Before that, her book, [*The Good News Club: The Christian Right's Stealth Assault on America's Children*](#) covered the religious right's efforts to infiltrate and undermine public education. That book was inspired by Stewart's experience as a Montecito Mom with school-aged children enrolled in our local schools.

Where: This event is co-sponsored by the Humanist Society of Santa Barbara and the Live Oak Unitarian Universalist Congregation in Goleta, CA. The in-person event will take place in the Live Oak Sanctuary at their campus at 820 North Fairview Avenue, Goleta, CA. The movie and speaker will also be live-streamed on Zoom at: <https://us02web.zoom.us/j/88193881833>. There is no cost to attend. All are welcome. Donations gratefully accepted. **This event is Sunday, April 13.**



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Roger Freedman. From the Solar System to the Most Distant Galaxies: 2-½ Years of Discoveries with James Webb Space Telescope

By Robert Bernstein

UCSB Physics Emeritus Professor Roger Freedman held our attention three years ago as he explained the wonders and understanding that the James Webb Space Telescope (JWST) would provide.

He was back with an update on what JWST is already showing us. Judy Flattery began with how this talk is relevant to Humanism. *From The Affirmations of Humanism* by Paul Kurtz:

- “We are committed to the application of reason and science to the understanding of the universe and to the solving of human problems...”
- “We believe that scientific discovery and technology can contribute to the betterment of human life...”
- “We are citizens of the universe and are excited by discoveries still to be made in the cosmos.”

Full disclosure: Exploring and understanding the wonders of our universe sits at the top of my list of what gives meaning to life.

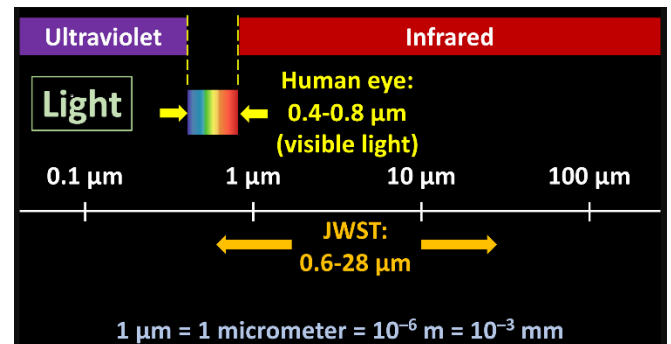
Freedman noted that he would do the talk in reverse order from the title, starting with distant galaxies, then moving closer to home.

JWST is an international collaboration, managed by the Space Telescope Science Institute in Baltimore, in collaboration with ESA, the European Space Agency.

JWST sees in the infrared (IR) and Freedman explained how this compares to human vision. The electromagnetic spectrum includes many forms of energy. Each form of energy is distinguished by its wavelength. Visible light has a wavelength just below one millionth of a meter. We call this a micrometer (formerly micron).

JWST can see from the middle of the visible light spectrum on up beyond 100 micrometers. If we were talking about sound, we would say that the human

range of vision is just one octave (a factor of two in range). Whereas JWST covers about six octaves.

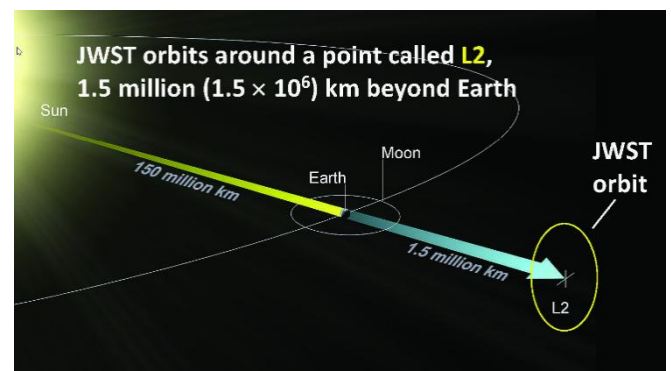


Infrared is the energy radiated as heat in everyday life. He showed us a photo he took with a FLIR infrared camera, showing how recently parked cars radiate from their hoods. FLIR is a local infrared imaging company.

JWST is by far the largest space telescope ever. Its mirror is a collection of 18 smaller mirrors, totaling 6.5 meters in diameter, far larger than the two meter Hubble telescope mirror.

Bigger means two things: seeing dimmer objects. and seeing things in more detail.

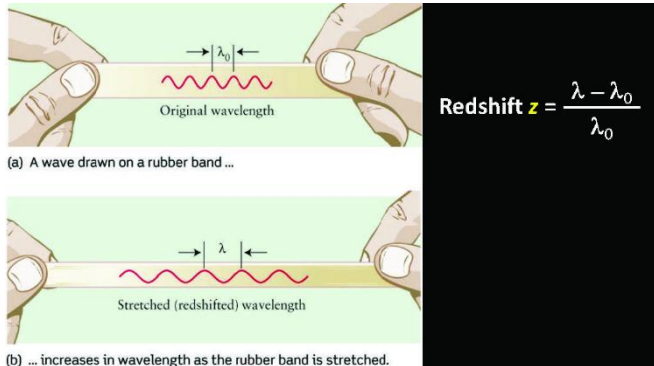
Hubble orbits in a low Earth orbit. In contrast, JWST orbits a point called L2 that is far beyond the moon. Which means there is no way to service it, as was done once for Hubble.



On to the discoveries. Starting with galaxies. The universe has been expanding ever since the Big Bang 13.7 billion years ago.

Imagine a rubber sheet being stretched with spots on it. The spots get further away from each other.

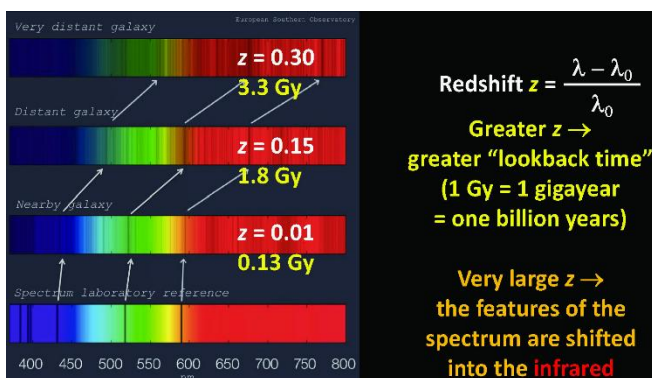
One consequence: Light also gets stretched out. What may have started out as visible light gets stretched to be the longer wavelengths of infrared. Which is why the JWST comes in handy!



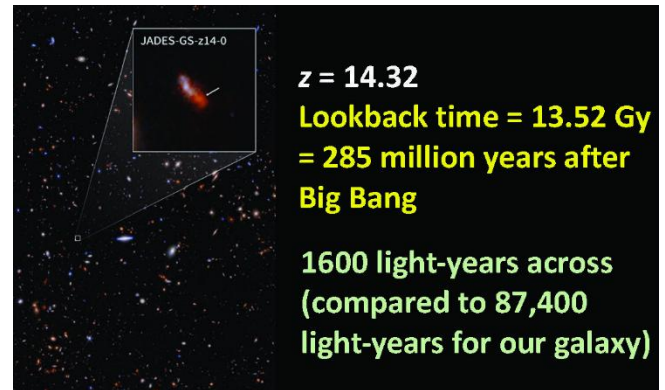
The further out in space we look, we are also looking further back in time. Because it takes time for the light to get to us over vast distances. The first 400,000 years after the Big Bang, the universe was opaque to light. The goal is to look back as far as possible to that 400,000 year old limit.

Time can be measured in terms of “red shift”. The factor that light is stretched toward the red or infrared is called “z”.

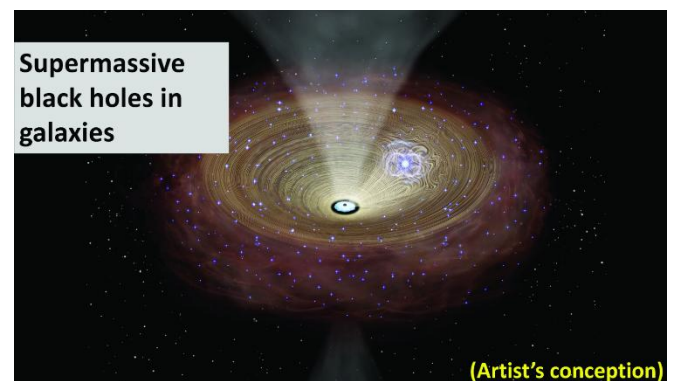
The record so far for observations? A “z” of 14.32, corresponding to 13.52 billion years ago, when the universe was only 285 million years old.



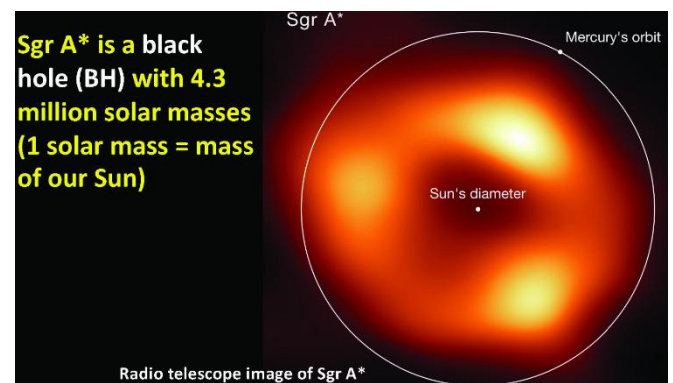
It was a big surprise to find that there was already a galaxy at this early time. It was 1600 light years across (compared to our own Milky Way, which is 87,400 light years across).



It seems that most galaxies have a supermassive black hole at their centers. Here is an artist's rendition.



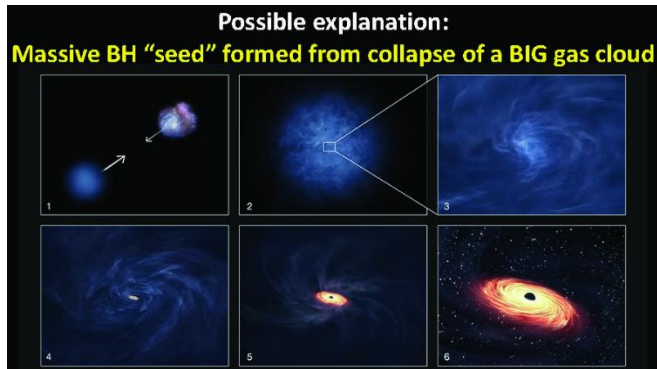
The supermassive black hole at the center of our galaxy is in the constellation Sagittarius. Freedman showed a video clip of the extreme orbits of stars surrounding this black hole. He also showed us a radio telescope image of the area around this black hole. As matter falls into the black hole it also emits x-rays, which are of very high energy and short wavelength.



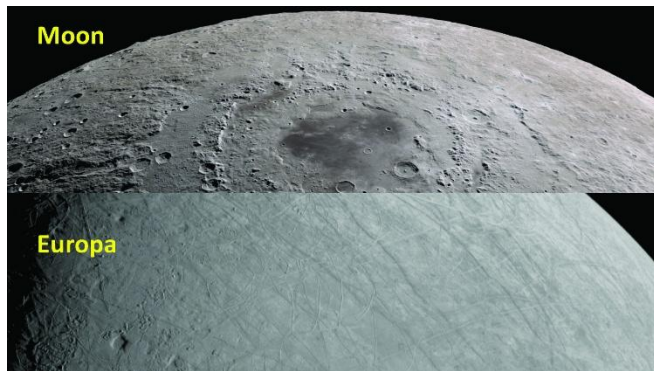
Since it should take time for matter to accumulate into a black hole, it was expected that very distant (very early) galaxies should have small black holes.

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JWST discovered this is not true. Some of these early galaxies have big black holes! Which means that these black holes may have been seeded from really big gas clouds collapsing to black holes in the early universe. Freedman hopes that we have a better explanation by the next time he talks to us. He said we need “multi-messenger” astronomy, done at a variety of wavelengths.



At this point, Freedman came much closer to home; to Jupiter’s moon, Europa. Europa looks very different from our moon, even though it is of similar size. Notably, Europa is missing the craters seen on our moon. This would imply something is reshaping the surface of Europa.



On Earth, geological activity reshapes the surface. How could this be happening on Europa, such a small body?

Io, Europa and Ganymede are Jupiter’s three inner moons, named for the three lovers of Jupiter in mythology. These three moons move in synchrony.

For each orbit Ganymede makes, Europa makes exactly two orbits. These three moons tug on each other rhythmically. As if you were squeezing putty in your hand. These tidal forces heat up Europa.

Europa is mostly water and ice. Just as we have volcanoes on Earth, Europa has “volcanoes” of water and ice. With all of this liquid water, could there be life below the surface of Europa?

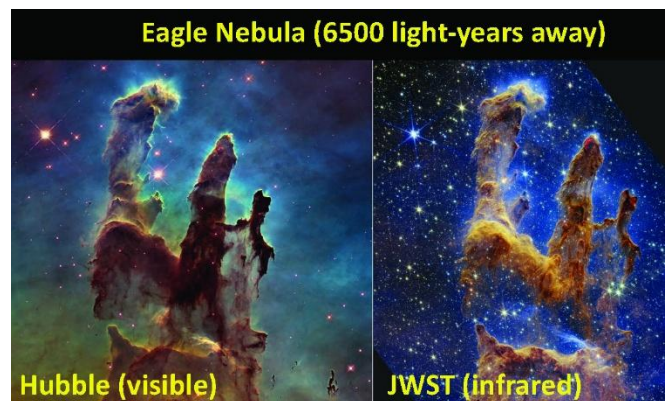
Life on earth needs carbon. Is there carbon on Europa? Perhaps some carbon emerges from Europa’s volcanoes. We also see salt on Europa. JWST was able to take a low resolution image of Europa. Not nearly as good as a space probe could take; but it was able to detect carbon dioxide on Europa due to fluorescence in the infrared in the Tara Regio area of “chaos terrain” (Tara Regio means High Kings in Celtic mythology.)

In 5-6 years we will have an update. The Europa Clipper space probe was launched in October 2024. It will arrive at Jupiter in April 2030.

Thanks to HSSB Board member Gary Noreen, some of us got to see the Europa Clipper in its final stages of assembly at the Jet Propulsion Laboratory.



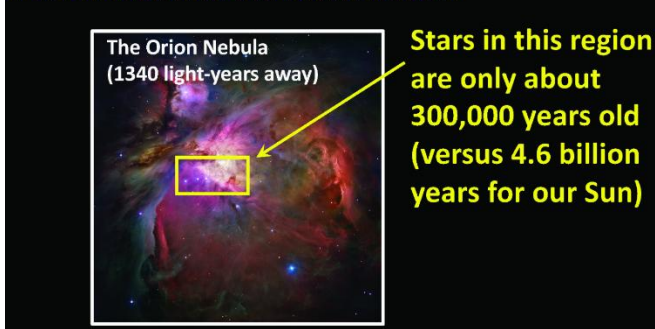
In between distant galaxies and our solar system are regions of star and planet formation. One such region called, “The Pillars of Creation”, is widely known from a stunning Hubble image. It is in the Eagle Nebula of our galaxy, 6500 light years away.



JWST not only gave us a more detailed view of this nebula. It was also able to see through the molecular clouds of mostly hydrogen with its infrared sensors.

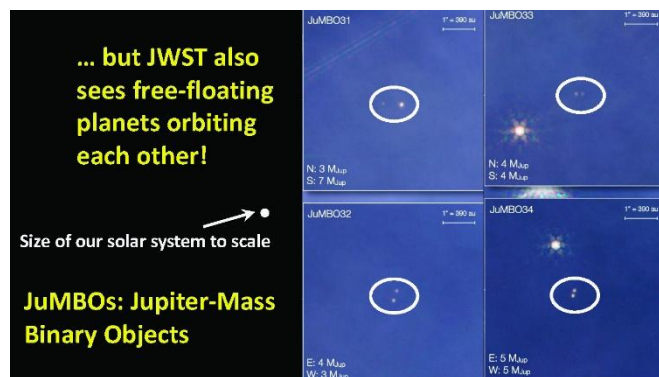
In the middle of the sword of the Orion constellation is a fuzzy blob called the Orion Nebula. It is 1340 light years from us. Another area of active star formation. It puts out a lot of ultraviolet light, which fluoresces to visible light. Stars in this region are only 300,000 years old, compared to 4.6 billion for our sun. It's our chance to see a baby picture of something like our grown up sun.

A JWST look into the Orion Nebula



JWST is able to see solar systems forming from vast clouds of matter, far bigger than our solar system.

JWST also offered a surprise: Planets orbiting each other with no star at all! These planets range from half the mass of Jupiter to 7 times the mass of Jupiter. Called Jupiter Mass Binary Objects (JuMBOs). Little is understood of how these form and why they form in pairs.



How can we see them if no star is present to illuminate them? Because these planets are mostly gas that is slowly contracting. As it contracts, it heats up (as when a bicycle pump heats up as you compress the air inside). This bit of heat is detected

by JWST as infrared light. No one expected to see these objects.

To keep up with the latest JWST images and research, go to <https://esawebb.org/>



HSSB Elections

By Diane Krohn, HSSB Secretary

HSSB has Board nominations in April, elections in May, and the new Board starts its term in June. We have 3 Officer positions, President, Treasurer and Secretary; and a minimum of five Director positions. Any HSSB member is eligible to run for these positions. It's a great way to be involved in our Society and help decide what sort of activities we do and what type of speakers and topics we present. And it's not a huge amount of your time! We meet once a month for a Board meeting, via Zoom. Easy! Talk to any of the current Board members if you are interested or want more information.

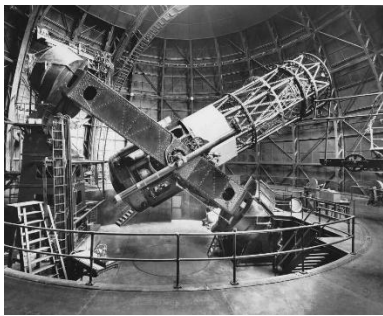
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Explore the Stars at Historic Mt. Wilson Observatory!

By Gary Noreen

Join the Humanist Society of Santa Barbara for an unforgettable experience with a guided tour and nighttime observing session at the iconic Mt. Wilson Observatory. Discover the remarkable history and groundbreaking discoveries made through the Observatory's legendary telescopes.

Historical Tour Highlights Include:



- The 100-inch Hooker Telescope, the largest telescope in the world from 1917 until 1949, used by Edwin Hubble to discover the

expanding universe.

- The 60-inch Telescope, crucial in understanding the vast scale of our galaxy and beyond.
- The Solar Telescope, instrumental in advancing our understanding of the Sun and solar phenomena.

Event Details:

- **Date:** Saturday, August 16, 2025
- **Observatory Tour** begins at 5:45 PM
- **100" Observing Session:** 7:04 PM to 1:00 AM
- **Location:** Mt. Wilson Observatory, Mt. Wilson, CA. About 120 miles, 2 ½ hour drive from Santa Barbara if there is moderate traffic.

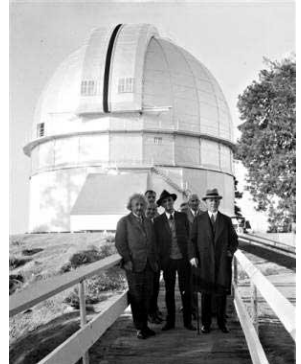
Cost: \$140 per person (includes observatory tour and 100" observing session), \$125 per person 100" observing session only) payable by check, Zelle or cash at Mt. Wilson before the tour or observing begins.

Space is limited (Tour: maximum 15 people, Observing Session: maximum 20 people).

Dining Options

Los Gringos Locos or Taylor Steakhouse in La Cañada Flintridge (approximately 35-minute drive to Mt. Wilson Observatory).

Cosmic Cafe at Mt. Wilson Observatory (open 10 AM to 5 PM weekends).



Additional Information:

- Carpooling recommended. We are limited to 10 cars total.
- **Sorry, there is NO handicap access in the observatory!**
- **The observatory does not allow children under 12!**
- For Mt. Wilson hiking information and trail conditions, visit: <https://www.fs.usda.gov/recursive/angeles/recarea/?recid=42034>
- General Mt. Wilson Observatory information: <https://www.mtwilson.edu>

Reserve Your Spot Today! Contact: Gary Noreen at YODA@ardio.com (preferred) or (818) 424-5084. If you call and Gary doesn't answer, please leave a voice message – he blocks callers who don't leave voicemail.

Presented by the Humanist Society of Santa Barbara – Celebrating Curiosity, Reason, and Discovery!



Upcoming Events of Interest to Humanists

Submitted by Diane Krohn & Melanie Jacobsen

- April 6: Kendra Wise: *Learning How to Be an Ally*. Kendra Wise shares her "ally" learning curve with us and how it has been shaped by personal experience and interconnections with others. ago. [LOUUC-Goleta](#)
- April 5-7: Summit for Religious Freedom, convened by Americans United for Separation of Church and State. The conference is in Washington, D.C. and virtual. [Summit for Religious Freedom 2025](#)
- April 13: Rev. Jonathan Young: *The Secrets of Mythopoeics*. Inspiration can let us glimpse the mysteries. The mythopoetic is the moment radiance reveals itself. Rev. Jonathan Young and Anne Bach will celebrate the beauty of the creative process ~ in honor of National Poetry Month. [LOUUC-Goleta](#)
- April 20: Jonathan Young: *Easter ~ From a Cosmic Egg*. In springtime, many religious traditions tell stories of death and rebirth. Join Rev. Jonathan Young to celebrate the season with tales of renewal ~ and the great Easter Egg Hunt (for the meaning of life). [LOUUC-Goleta](#)
- April 17-20: American Atheists 2025 National Convention, Minneapolis, MN. [American Atheists 2025 Convention](#)
- April 22: Pete Buttigieg: *Making Sense of the 2020's: What the Rest of This Decade Will Require of Leaders in Policy, Politics and Communications*. UCSB Arts & Lectures event. [Pete Buttigieg](#)
- April 27: Sue Reinhart: *Singing our Love Songs to the Earth*. Let the earth hear our voices as we sing her praises and tell our stories of how she has uplifted us. [LOUUC-Goleta](#)
- April 29: José Hernández: *Reaching for the Stars: The Inspiring Story of a Migrant Farm Worker Turned Astronaut*. UCSB Arts & Lectures event. [Jose Hernandez](#)

- June 27-29: American Humanist Association 84th Annual Conference, Chicago, IL. [AHA 84th Annual Conference](#)
- July 18-20: Scopes Trial Centennial Conference, Chattanooga, TN. Hosted by the Center For Inquiry and the Freedom From Religion Foundation. [Scopes Trial Centennial](#).

Watch our HSSB performance of *Inherit The Wind* in honor of the 100th anniversary of the Scopes Trial. [Click Here!!](#)

HSSB Contact Information

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sbhumanisteditor@gmail.com

Secretary: Diane Krohn, DJKrohn1@gmail.com

Treasurer: David Flattery,

david.flattery@post.harvard.edu

Board Members at Large:

Wayne Beckman, Robert Bernstein, Judith Fontana, Gary Noreen, Mary Wilk

To Join or Donate to HSSB: Annual Membership dues - \$36 for an individual, \$60 for a couple, \$100 for a Society Supporter, and \$300 (or more) for a Society Patron. Dues payments and other donations can be made via PayPal ([Paypal.me/SBHumanists](https://www.paypal.me/SBHumanists)), Zelle (HSSBpayments@gmail.com), or include your name and contact information when submitting payments. Make checks out to *Humanist Society of Santa Barbara* and mail to Mary Wilk, P.O. Box 30232, Santa Barbara, CA 93130.

mwilk722@gmail.com. Dues, donations, & payments can be remitted via this PayPal QR code. At the PayPal site, select 'Send' then log into your PayPal account to complete the transaction. Watch our speaker videos on [YouTube](#). Subscribe to our [Meetup](#) page to be notified of upcoming events.



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The HSSB Secular Circular – April 2025

Humanist Society of Santa Barbara
P.O. Box 30232
Santa Barbara, CA 93130

HSSB Calendar

Thursday April 10, 5:00 pm. HSSB Board Meeting. Members always welcome to attend.

Zoom link: <https://us02web.zoom.us/j/83592300667>.

Sunday April 13, 2:00 pm. Watch the movie *God & Country* about Christian Nationalism, followed by an in-person presentation by author Katherine Stewart at Live Oak UU in Goleta and On Zoom at:

<https://us02web.zoom.us/j/88193881833>.

Tuesday May 20. 5:00 pm. HSSB Board Meeting. Members always welcome to attend.

Zoom link: <https://us02web.zoom.us/j/83592300667>.

Saturday May 24. 3:00 pm. Timothy C. Hale, Esq. Santa Barbara attorney and national expert in successfully litigating cases against churches and other organizations that have sexually abused children.

Zoom link: <https://us02web.zoom.us/j/88193881833>.

Tuesday June 17. 5:00 pm. HSSB Board Meeting. Members always welcome to attend.

Zoom link: <https://us02web.zoom.us/j/83592300667>.

Sunday June 22. Noon - 3:00 pm. Summer Solstice Picnic. Stow Grove Park. Bring a salad, an appetizer, or a dessert to share.

Tuesday July 22. 5pm HSSB Board Meeting. Members always welcome to attend.

Zoom link: <https://us02web.zoom.us/j/83592300667>.

Saturday July 26. 3:00 pm. Retired judge, Mary Beth O'Connor. *From Junkie to Judge—Without God*