

Southern Maine Astronomers
Club Meeting Minutes
May 1, 2025 7:00 p.m.

Attending were members Michael Green, Dave Crocker, Russell Pinizzotto, Bob Dodge, Dwight Burkard, Kevin Berry, John Saucier, Greg Thorup, Marc Stowbridge, Greg Shanos, Brad Irish, Gil Fraser, Art Salve, Dean Ostergaard, Bill Denig, John Stetson, Mike Simmons, Howie Marshall, David Manchester, Brett Joslin, Russell Clark, Paul Howell, Al DiSabatino, George Bokinsky, Tom O'Conner, Dennis Leiner, Ron Thompson, Bonnie Weisberg, Dwight Lanpher, Kevin Berry, Greg Zdenek, Doug Lund-Yates and Rob Burgess and guests W. Sumner Davis, PhD, PhD, ThD, MPH, MHA, Marc ____, Sara ____ (ASNNE), Jill McDonalder, Herb Bubert, "Zoom User", Peter ____, Ron Bernier, Gordon ____, Bob R ____, Michael Aramini, Jon Silverman, John & Steph ____, Hemendra Bhatnagar, Charlotte Lister and our guest speaker, Elizabeth Kessler. This was the highest attendance ever at a monthly club meeting.

Russ Pinizzotto opened the meeting and offered special recognition to outgoing president Rob Burgess, citing unprecedented growth in club membership and club finances, especially with the creation of an endowment fund. Rob thanked those on zoom for the acknowledgement and showcased an engraved acrylic star documenting his term of service and a beautiful MOVA Globe of all 88 constellations.

Russ also encouraged members to attend the next club star party at Neptune Drive on 5/17/25.

Announcements:

Rob noted that the major dark sky bill in the Legislature, sponsored by Rep. Laurie Osher, was finalized and ready to be printed. A public hearing is expected sometime in the second week of May. Notice will be provided to members once the bill has an LD number and has been assigned to committee. Rob also noted that the Governor issued a letter of support for International Dark Sky Week (April 21-28) and that the towns of Brunswick, Harpswell and North Yarmouth issued proclamations by their town council or board of selectmen celebrating IDSW.

Guest Speaker:

Russ introduced the monthly speaker, Dr. Elizabeth Kessler of Stanford University, speaking to the topic of "The Astronomical Sublime: Art, Science and the Cosmos." Dr. Kessler, or "Beth" as she prefers, provided an interesting, daresay illuminating, talk about the philosophical underpinnings of the transcendent and how it has been transformed into art and ultimately into the presentation of astronomical images from Hubble and the James Webb Space Telescope. In the modern interpretation of astronomical images the Hubble Heritage Project Team fulfilled the dual role of showing various aspects of scientific data as well as providing images that inspire in highly emotional ways.

Adjectives commonly associated with "sublime" include "awesome," "wonderful" and "stunning" but it is much more than that. Sublime transports us to the transcendent, to something well beyond ourselves that can include elements of fear and majesty. With its origins in ancient Greek

philosophers the concept found purchase in the writings of 18th century philosophers Edmund Burke and Immanuel Kant and was later expressed in particular by 19th century American landscape artists such as John Martin, Albert Bierstadt and Thomas Moran who painted extraordinary images of the grand topography of the American West. Their images included pounding waterfalls and mountain canyons containing foreboding clouds and shadows against other brightly lit areas. The paintings made us both feel small and insignificant, as well as triggering the invigorating rush of fear, but at a safe distance, taking us emotionally well beyond the mundane.

Other interpreters included Chesley Bonestell, a sci-fi illustrator, whose 1944 painting of “Saturn as Seen from Titan” helped catapult the imagination of generations. Perhaps the most iconic forerunner of the modern-day Hubble and JWST images was the Apollo 8 “Earthrise” from December 1968. There, NASA utilized a design format that has carried over to the present day. The original image had the moon’s horizon being vertical on the right-hand side of the frame with the Earth shown as emerging, horizontally, toward the left. By reorienting the image with the Moon’s foreground being across the bottom of the frame and the Earth appearing to rise up from there the image became far more relatable, by grounding the viewer with a more familiar horizon orientation and our eyes being drawn upward toward the rising Earth. The half-lit pale blue Earth stood out against the blackness of space producing that transcendent experience of awe, fear, smallness.

These presentation formats became foundational for the interpretation and display of extraordinary deep sky objects made possible through Hubble and JWST. In subsequent years the Hubble Heritage Project Team would employ this same framing technique in displaying images that became iconic, such as “The Pillars of Creation” in the Eagle Nebula. Had the pillars been pointing down, or sideways, the image would be far less captivating and inspirational. The use of color and contrast was also chosen to help convey scientific information such as chemical composition and texture. Red was chosen to apply to lower frequency signals, blue to higher, and green for wavelengths in between. Intensity of color and contrast produced the same reaction as those 19th century landscape artists, helping us to have that transcendent, religious, experience. Of course, there is also a more practical aspect to these images as well – to captivate the imagination of fellow Americans (who pay the bills) and to inspire that next generation of scientists and engineers who will take space science to its next level. Nothing wrong with that!

Beth’s talk is available by a recording and access will be posted on the club’s website.

Night Sky Tour - Russ Pinizzotto

Russ highlighted items from the NASA Observing Challenge for May showcasing the following: M51, the Whirlpool Galaxy in Ursa Major; M53, a beautiful globular cluster, in nearby Coma Berenices; M64, the Blackeye Galaxy, also in Coma Berenices; M104, the Sombrero Galaxy, with its spectacular dust edge, in Virgo; Caldwell 21, an irregular galaxy (likened to the Magellanic Cloud) in Coma Berenices; Caldwell 32, the Whale Galaxy, in Coma Berenices; Caldwell 52, an irregular galaxy in Virgo and M87, in a cluster of galaxies between Leo and Virgo.

Rob Burgess

Secretary, SMA