

Minutes for the 1617th meeting of the Geological Society of Washington
Cosmos Club
February 11th, 2026

President Mike Ackerson called the meeting to order at 20:03 EST.

Attendance

There were 46 attendees.

Minutes

The meeting began with the reading and approval of the minutes from the previous meeting, the 1616th meeting, which was held on December 3, 2025.

Guests and New Members

Eleven guests were announced: John Faber (Husband of member and past president, Ester Sztein), Paul Signet (NVCC), James Mulqueeney (NMNH), Ana Martinez Garcia (Carnegie Science), Alejandra Bermeo Cevallos (Geosciences Institute of Spain), Devan Solanki (Kobald Metals), Eunice Cho (Wife of Devan Solanki), Chris Kennedy (Bloomberg Economics), Unknown (GSA), Unknown (Urban Planning) and Kathryn Hobart (USGS).

Two new members were announced: Mike Smith, (Albert Einstein Program, Legislative Fellow, U.S. Senate) and Jonathan Baldwin.

Obituaries

A moment of silence was observed in remembrance of George Rossman, who presented at GSW in 1981 and whom Ackerson called one of the great American mineralogists.

Announcements

President Ackerson announced that the Geological Society of Washington has launched a new, more user-friendly membership system using Wild Apricot, thanks to the significant volunteer efforts of Jonathan Tucker and Andy Campbell. Members are encouraged to sign up using their primary personal email and to note that the portal is only for membership, payment, and communications, not the main website. Ackerson also highlighted the society's recent growth in membership, which has increased from 140 last year to 161 so far this year.

Informal Communication

President Ackerson delivered a fruitful exploration of the great āpricot vs. apricot pronunciation debate, noting the split between U.S. and U.K. usage, mapping dialects worldwide, and wading into the sticky realm of apricot etymology. He concluded by granting executive approval to either pronunciation.

Ackerson announced member Virginia Agostinelli's artistic project to sketch past, present, and future GSW presidents as a new society tradition. Agostinelli presented recent president Ved Lekić with her drawing of him delivering his presidential address. Ackerson said that plans are underway to digitize the artwork.

Formal Program

The formal program commenced at 20:21 EST and consisted of three speakers: Kathryn Hobart (USGS), Ludmila Fonseca Teixeira (Smithsonian) and Katherine Turk (Smithsonian).

1st formal talk: Kathryn Hobart presented "Critical Minerals in Mine Waste: A Case Study on Sulfides from Volcanogenic Massive Sulfide Deposits." Hobart presented her investigations into pyrite and pyrrhotite-rich tailings as a potential nontraditional source of critical minerals. Mine tailings rich in sulfide minerals also pose environmental risks, making reprocessing a possible dual solution. By analyzing trace element concentrations

and their structural or inclusion-based enrichment across different deposit types, her study identified patterns of substitution and inclusion in sulfide minerals. *Talk length: 20 minutes.*

Questions were asked by: Devan Solanki (Kobold Metals), Jane Hammarstrom (USGS, Emeritus), Mong-Han Huang (UMD), Devan Solanki (Kobold Metals) and Mike Ackerson (Smithsonian NMNH).

2nd formal talk: Ludmila Fonseca Teixeria presented “How to Find Volcanoes That No Longer Exist?” Teixeria discussed the long-standing question of how silicic volcanic rocks relate to their plutonic counterparts and how often magma reservoirs erupt versus solidify underground. She presented a method to distinguish these in ancient systems using titanium thermometry in detrital quartz and zircon, which allows volcanic, plutonic, and pegmatitic crystals preserved in sediments to be identified. She said that this approach makes it possible to detect completely eroded volcanoes and better understand the evolution and growth of continental crust through time. *Talk length: 18 minutes.*

Questions were asked by: Ved Lekić (UMD), Mong-Han Huang (UMD), Jane Hammarstrom (USGS, Emeritus), Kevin Wong (Carnegie), Ved Lekić (UMD), Brooks Hanson (AGU, retired) and Jamie Allan (NSF, retired).

3rd formal talk: Katherine Turk presented “Behavioral Innovation at the Dawn of Modern Oceans.”

Turk described her research on how marine animals adapted behaviors during major oceanic changes, focusing on sediment-penetrative burrowing, a key process shaping seafloor structure, chemistry, and habitability. Using CT scans and a 2D U-Net deep learning model, she identified late Ediacaran (~539 Ma) burrow-like structures, including spirals over 4 centimeters deep, suggesting that critical ecosystem engineering behaviors predate the Cambrian and were more complex than previously recognized. Turk linked these ancient traces to modern analogs, specifically *Priapulid*, that she collected on tidal flats in northwest Germany. She described these arthropod-related worm-like animals as “deeply unpleasant to watch” but highly active burrowers that significantly alter sediment structure, providing insight into how early animals transformed benthic ecosystems. *Talk length: 17 minutes.*

Questions were asked by: Jamie Allan (NSF, retired), Mong-Han Huang (UMD), Kevin Wong (Carnegie), Ved Lekić (UMD), Mike Walters (Carnegie), Kay Behrensmeyer (Smithsonian NMNH) and Andy Campbell (NRC, retired).

President Ackerson thanked Program Chair Ross Salerno for arranging the speakers, announced the next meeting on March 4th and adjourned the meeting at 21:45 EST.

Respectfully Submitted,

Beth Doyle
Substitute GSW Secretary