

Draft Minutes for the 1608th meeting of the Geological Society of Washington
March 5th, 2025
Cosmos Club

President Ved Lekić called the meeting to order at 20:02 EST.

Attendance

There were 39 attendees.

Minutes

The meeting began with the reading and approval of the minutes from the previous meeting, the 1607th meeting, which was held on January 29th.

Guests and New Members

One guest was announced, visiting from the National Academies. Four new members were announced: Emily Orzechowski, Lynn Wingard, Laura Helmuth, and Christopher Cahill.

Obituaries

A moment of silence was held for Bob Burruss (USGS and 2013 GSW President), along with a remembrance shared by Aaron Jubb (USGS).

Announcements

The speakers originally scheduled for the February meeting, which was canceled due to inclement weather, have been rescheduled for the April 30th meeting at Carnegie Science EPL.

Informal Communication

A Stand Up for Science rally will take place at the Lincoln Memorial on Friday, March 7th, from 12 PM to 4 PM.

Maryann Malinconico (Lafayette College), also an AAPG delegate, shared that as GSW is an AAPG affiliate society, paying GSW members are eligible for health and life insurance through GeoCare, accessible at geocarebenefits.com.

Formal Program

The formal program commenced at 20:16 EST and consisted of three speakers: Valerie Finlayson (University of Maryland), Giacomo Criniti (Carnegie), Jingchuan Wang (University of Maryland). The theme of the formal program was Earth's Mantle.

1st formal talk: Val Finlayson presented, "A High Field Strength Perspective on Tungsten-182 Variability in Ocean Island Basalts." She delved into HFSE TiTaN-type and ¹⁸²W anomalies, and the FOZO (FOCUS ZONE) in modern ocean island basalts. Her talk addressed links between alkalinity and melt degree, as well as the genesis of reservoirs with correlated HFSE and ¹⁸²W anomalies. *Talk length: 21 minutes.*

Questions were asked by: Kuan-Yu Lin (Smithsonian), Jonathan Tucker (National Academies), Emmanuel Codillo (Carnegie), and John Christoph (Smithsonian). Questions covered the origin of FOZO signatures, the current constraints on bulk silicate Earth, the sensitivity of models to the timing of core-mantle partitioning, and approaches to distinguishing deep mantle signatures from potential shallow influences.

2nd formal talk: Giacomo Criniti presented, “Mineral Physics Constraints on the Composition of the Lower Mantle.” He presented high pressure x-ray diffraction and Brillouin scattering diamond anvil experiments, as well as an internally consistent mineral physics model. *Talk length: 18 minutes.*

Questions were asked by: Ved Lekić (UMD), Mike Walter (Carnegie) and Josh Martin (GSA). Questions were largely technical, including regarding alternative methods to eliminate the diamond signal and the equations of state used in the model.

3rd formal talk: Jingchuan Wang presented, “Tracking Ancient Intraoceanic Subduction in the Deep Mantle: Insights from the Southeast Pacific.” He provided seismic observations of deep structures, focusing on the Southern East Pacific Rise. Using mantle tomography, he explored multiple possible models for the separation between the Superswell anomaly and the East Pacific anomaly. *Talk length: 19 minutes.*

Questions were asked by: Steve Shirey (Carnegie), Mike Walter (Carnegie), Mike Ackerson (Smithsonian), Jamie Allan (NSF), and Jonathan Tucker (National Academies). Questions touched on the timing of thermal stabilization of the slab with the surrounding mantle, the implications of its thermal state given the reduced sediment input from an intra-oceanic arc setting, and seismic scattering in the region.

President Lekić adjourned the meeting at 22:01 EST.

Submitted by Jessie Bersson (Smithsonian), GSW meeting secretary