Draft Minutes for the 1597th meeting of the Geological Society of Washington
Feb 7, 2024
Cosmos Club

President Dan Doctor called the meeting to order at 20:04 EDT.

Attendance
There were 40 attendees in attendance..

Minutes
The meeting began with the approval of the minutes from the previous meeting (1596st). The minutes of the 1596st meeting had been posted online and a Minute's Minute was read aloud. No corrections were noted, and the minutes were accepted as read.

Guests and New Members
Two new members were announced: Peter Valley (USGS) and Michael Marriott

Guests were introduced: Benjamin Gruber (Scripps Inst of Oceanography), Manuel Schilling (Univ Austral de Chile), Wriju Chowdhury (Smithsonian), Michael Pillsbury (Cosmos Club member)

Announcements
Two announcements were made.

The GSW will also be having a daylong field trip on Saturday, March 30 to the Baltimore Mafic Complex led by Rebecca Adams (Maryland Geologic Survey)

Judges are needed for the 2024 Science Fairs between March 2 and April 6 in Northern Virginia, DC and Montgomery County. Contact Kori.newman@gmail.com to volunteer to judge.

Obituaries
No obituaries were read.

Formal Program

The formal program commenced at 20:20 EDT and consisted of three speakers: Brandon Graham, Paul Hackley, and Ross Salerno, all at the USGS

Talk 1: In situ ^{10}Be modeling and terrain analysis constrain subglacial quarrying and abrasion rates at Sermeq Kujalleq (Jakobshavn Isbræ), Greenland

Glacial erosion is one the most prominent characteristics of glaciers, however, understanding the rate that glaciers erode is difficult to quantify due to the obfuscated nature under a mountain glacier or ice sheet. Most observations of erosion rate are from sediment budget estimates of mountain glaciers, but few observations exist for ice sheets. Dr. Graham presented a three-dimensional cosmogenic nuclide modeling approach coupled with terrain analysis to an exposed bedrock area from the Jakobshavn Isbrae region of the western Greenland Ice Sheet.

Talk length: 20 minutes.

Questions were asked by M. Huang (Univ. Maryland), Bill Burton (USGS), Christian ? (Smithsonian), George Helz (Univ Maryland)

Talk 2: Dr. Hackley presented "Organic Petrology at the USGS in the 21th Century"
Talk length: 21 minutes.

Organic petrology is the study of the origin, occurrence, structure, and history of sedimentary organic matter. Since the early 1900s, the USGS has utilized organic petrology investigation for the assessment of the fossil fuel resources of the nation and the world. This talk examined a history of organic petrology research at USGS up to the present-day, focusing on modern microscopy and spectroscopy techniques for the spatially resolved investigation of sedimentary organic matter.

Questions were asked by: Michael Ackerson (Smithsonian), Chris ? (Smithsonian), Michael Walter (Carnegie), Bill Burton (USGS) and Mary Tyra.

Talk 3: Ross Salerno presented "The age of dome-and-keel structures in the Pilbara Craton, Australia
Talk length: 22 minutes.

Dome-and-keel structures are a hallmark of Archean cratons, commonly interpreted as the results of crustal overturn events that underpinned the growth and stabilization of continental crust on early Earth. The Pilbara Craton stands out as one of the best-preserved examples of Paleoarchean crust available for study. Dr. Salerno nvestigated the timescales of this process through the integration of garnet and zircon geochronology with microstructural analyses.

Questions were asked by Michael Ackerson (Smithsonian), Mike Walter (Carnegie), Bill Burton (USGS), Jane Hammerstrom, someone from Smithsonian, and Jaime Allen (NSF)

The next meeting will be on March 6, with talks by Fox, Maricid (sp), and Wicks.

President Doctor adjourned the meeting at 21:45 EDT.

Respectfully submitted,

Michael Purucker