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### **Selected Karlstrom and Crossey Grand Canyon peer-reviewed articles coauthored by numerous collaborators and graduate students**

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## **APPENDIX 1. Karlstrom/Crossey outreach and scientific meeting activities in 2019-2021**

February 21-23, 2019, “*Grand Canyon Historical Society Meeting*”: Karlstrom and Crossey gave a talk entitled: “*Depicting Grand Canyon’s rock layers: 150 years of visualizing and interpreting geology*” that will be published in 2020 in the proceedings volume for the meeting.

February 28-March 1, 2019, “*Mapping Grand Canyon*” meeting at ASU meeting: Karlstrom and coauthors gave a talk entitled: “*160 Years of Grand Canyon Geological Mapping*” by Karl Karlstrom, Laura Crossey, Peter Huntoon, George Billingsley, Michael Timmons, and Ryan Crow. This led to a paper in *The Journal of Arizona History*, v. 60, no. 4, p. 655- 674.

April 18-20, 2019: “*Grand Canyon Geology and Geoscience Education Public Symposium*”: Held at the Shrine of the Ages in honor of Grand Canyon National Park’s 2019 Centennial celebration, the 150th anniversary of John Wesley Powell’s 1869 pioneering Colorado River expedition, and Earth Day 2019. Karlstrom and Crossey gave talks and led a public walk along the Trail of Time.

September 14-21, 2019: *GSA Thompson Field Forum I- Age and Carving of Grand Canyon: Towards a resolution of 140 years of debate*; an 8-day, 280-mile field conference by raft through Grand Canyon; 28 participants, see report in press for February 2020 GSA Today.  
<https://www.geosociety.org/documents/GSA/thompson/archive/TFF-report-2019.pdf?v=2>.

September 22-25, 2019 Geological Society of America National Meeting in Phoenix  
 Pardee session P2: *Grand Ideas, Grand Events: Geoscience Research, Geoscience Education, and Human Connections to Grand Canyon at its Six Millionth, 150th, and 100th Anniversaries*: Steven Semken, Julie Ann Wrigley, Eleanor Snow, Karl E. Karlstrom, Laura J. Crossey  
 Theme session T1. *Grand Canyon, Colorado Plateau, and Rocky Mountain Debates and Their Global Reverberations, 150 Years after Powell*.

April 3-13, 2020- *Grand Canyon Field Forum II- The Great Unconformity and Mesoproterozoic, Neoproterozoic and Cambrian systems in Grand Canyon*; an 11-day, 225-mile field conference by raft through the Grand Canyon; 28 participants. (see Appendix 2)

October 8-11, 2020: *CRevolution3: Origin and Evolution of the Colorado River System III*. This will be the fourth decadal scientific meeting focused on this topic. The venue will be the Shrine of the Ages Auditorium at Grand Canyon's South Rim, with accommodations available at Albright Training Center.

September 11-21, 2021, *Grand Canyon Field Forum III- Vishnu basement rocks of Grand Canyon: Middle crustal record of the construction and demise of orogens*; an 11-day, 280-mile field conference by raft through the Grand Canyon; 24 participants, already fully booked.

April 21-23, 2022- *Grand Canyon Geology and Geoscience Education*– This will be the second tri-annual public geoscience meeting held at the Park to celebrate Earth Science Week.

September 11-21, 2022, *Grand Canyon Field Forum IV- Springs and Groundwater of the Grand Canyon-Colorado Plateau Region*: an 11-day, 280-mile field conference by raft through the Grand Canyon; 24 participants, not yet chartered or booked.