



Arizona Geological Society Newsletter

MARCH 2021

Society Announcements

Arizona Geological Society – 11 March 2021 Presentation

Drilling into the Chicxulub Impact Crater

Dr. David Kring

[Center for Lunar Science & Exploration](#)

ZOOM URL - <https://arizona.zoom.us/j/87568360382>

Day: Thurs, 11 March 2021

Time: 6:30 p.m. (Admittance to ZOOM from 6:00 p.m. on)

If you are interested in sponsoring future AGS virtual meetings, please contact:

info@arizonageologicalsoc.org

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Publication News

Have you visited the [AGS Publications Archive](#) lately? We are posting more OCR format guidebooks that were carefully scanned by former AGS President Kevin Horstman (deceased). Please contact Publications Committee Chair Cori Hoag (corihoag @ [msn.com](mailto:corihoag@msn.com)) if you have others to scan that you don't see in the chronological list of guidebooks. The recent additions are:

- Arizona Geological Society, 1981, [Patagonia - Red Mountain - Hardshell deposits](#): Arizona Geological Society Symposium, Tucson, 1981, Relations of tectonics to ore deposits in the southern Cordillera, Arizona Geological Society and University of Arizona mine tour and field trip data for field trip no. 8, March 21, 1981, Guidebook, Leaders - J. Quinlan, F. Koutz, and R. Corn, variously paged.
- Keith, S. B., 1984, [Tertiary tectonics of the San Manuel-Kearny region, central Arizona](#): Arizona Geological Society Field Trip, April 13-15, 1984, Guidebook Leader S. B. Keith, 100 p.
- Dummett, Hugo, and Colburn, Nora, leaders, 1988, [Field trip to Bighorn mine, Socorro mine, and Copperstone mine, Arizona](#): Arizona Geological Society Spring Field Trip, April 17, 1988, Guidebook.
- Force, E.R., and Dickinson, W.R., 1993, [New work in the San Manuel and Mammoth districts \(Pinal County, Arizona\) - An introduction via Tucson Wash](#): Arizona Geological Society Spring Field Trip, Tucson, Ariz., March 21, 1993, Guidebook, 53 p., scale 1:24,000, 1 sheet.

Member News

Dawn Garcia, AGS member, has announced her candidacy for AIPG National President-Elect. Additional information can be found in the most recent TPG publication.

[The Professional Geologist Volume 58 Number 2](#)

Drilling into the Chicxulub Impact Crater

Dr. David Kring

[Center for Lunar Science & Exploration](#)

Abstract: The discovery of the Chicxulub impact crater added tremendous credibility to the impact mass extinction hypothesis. That discovery led, in turn, to detailed studies of the impact's environmental effects. More recently, deep subsurface drilling by IODP and ICDP provided an opportunity to study the formation of the extraordinary ~180 km diameter basin, which shattered the Yucatan Peninsula and uplifted deep crustal granitoid rocks to the surface to produce a peak ring of rock. The heat of the impact spawned a vast hydrothermal system that persisted for more than a million years. That hydrothermal system is currently being used as a proxy for Hadean Earth systems that may have hosted Earth's earliest life in the midst of an intense impact bombardment of the Earth's surface.

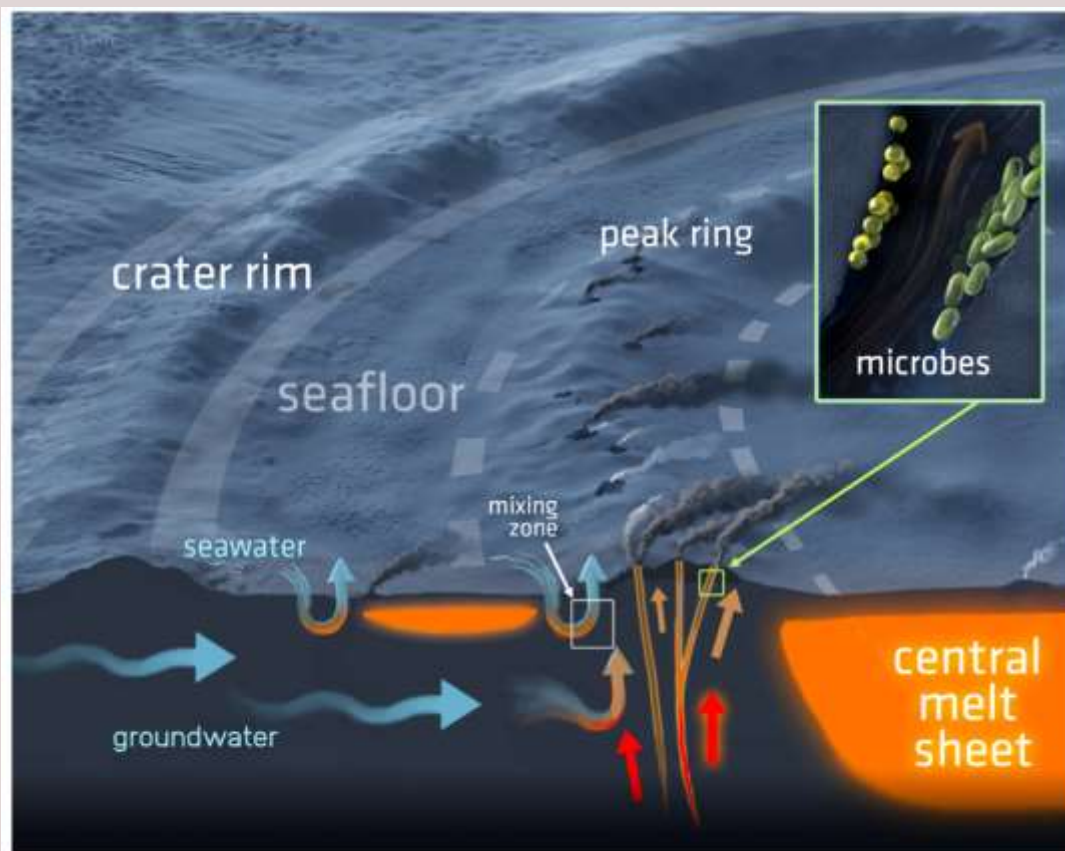


Illustration: Kring_Chicxulub Hydrothermal Microbes_(Victor O.)

From Dr. Kring's Webpage

The Center for Lunar Science and Exploration is led by Dr. David A. Kring. Kring received his Ph.D. in earth and planetary sciences from Harvard University. He specializes in impact cratering processes produced when asteroids and comets collide with planetary surfaces. Kring is perhaps best known for his work with the discovery of the Chicxulub impact crater, which he linked to the K-T boundary mass extinction of dinosaurs and over half of the plants and animals that existed on Earth 65 million years ago. He has also studied the environmental effects of impact cratering and shown how impact processes can affect both the geological and biological evolution of a planet. This work includes studies of the dramatic environmental perturbations (e.g., prolonged darkness, acid rain, wildfires) expected after the Chicxulub impact event, plus studies of several smaller local, regional, and global effects produced by the thousands of impact events that affected Earth after life evolved.

Since 1991, Dr. Kring authored or co-authored scores of peer-reviewed papers. In 2002, the Arizona Geological Society published David's popular geology text on the origin of the Tucson Mountains, 'Desert Heat & Volcanic Fire: The Geologic History of the Tucson Mountains and Southern Arizona'. (For a listing of Kring's publications <https://www.lpi.usra.edu/science/kring/research.shtml> .)



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