

<http://meteoriticalsociety.org>

INCOMING PRESIDENT'S 2021 ADDRESS



Brigitte Zanda

I am deeply honored to become President of the Meteoritical Society, having the responsibility to steer it over the next two years. I wish to warmly thank Mini Wadhwa who now becomes our past-president after two eventful years throughout which her leadership has been thoughtful and efficient. I am happy to know that she will remain an honorary member of the executive committee and will assist us with her wisdom. I am also happy to welcome our new vice-president, Nancy Chabot. If there were only

three women among the first 31 presidents of our society, there will now be three in succession!

After a PhD on the cosmic ray irradiation effects in meteorites, I was hired into Paul Pellas' group at the Muséum national d'Histoire naturelle (MNHN) in Paris (France). As I knew I was destined to become the curator of meteorites at the MNHN, I wished to study meteoritic samples more closely and started studying chondrites, which are rocks made of a variety of particles, some (or all) of which have witnessed the genesis of the Sun and of the protoplanetary disk. More specifically, I started working on the relationship between chondritic metal and chondrules and their role in generating chondrites with different chemical and isotopic compositions, working with my husband Roger Hewins, his former student Harold Connolly, and several members of their group. This work involved a lot of reflected light microscopy, which I really enjoyed and still consider an essential part of early sample characterization.

I was for 13 years the curator in charge of the MNHN meteorite collection. This gave me the opportunity to handle a large variety of samples and interact with many distinguished colleagues. Eventually, this also led to new scientific interests related to new and exceptional samples, often brought in by collector and dealer Luc Labenne. The most noteworthy of these was the recently discovered Martian regolith breccia NWA 7533, on which I have been privileged to work with Munir Humayun, Roger, and many others, studying events which took place over more than 3 billion years at the surface of Mars.

More recently, I have been involved in a large effort to recover the valuable meteorites that fall each year in France and in Europe by establishing a camera network called the Fireball Recovery and Interplanetary Observation Network (FRIPON), which currently comprises 150 cameras and is still expanding. This network is designed to watch incoming fireballs that signal the arrival of extraterrestrial particles with sizes 1 cm and larger, and to reconstruct their orbits and trajectories. To help recover meteorites, the FRIPON team also launched a citizen science/outreach project named Vigie-Ciel (literally "sky watch"). Its aim is to inform French citizens about the scientific value of meteorites, train them to identify them, and have them participate in their search and recovery. The first meteorite recovered by the FRIPON international network fell in Cavezzo (Italy) on New Year's Day and was found only 3 days later.

The Meteoritical Society has faced difficult situations over the last few years, the latest one being COVID-19 which led to the postponement of the Glasgow (Scotland) meeting and is likely to lead to the Chicago (Illinois, USA) meeting going virtual. This is rather disappointing. But we should consider that our society has weathered worse crises in the past, and we stand by this quotation, which will appeal to the Harry Potter fans: "We are only as strong as we are united, as weak as we are divided" (Albus Dumbledore). A similar idea is actually reflected in our inclusiveness statement: "The Meteoritical Society is a professional

Society that prides itself on its inclusive nature. It welcomes all who are interested in understanding planetary and stellar formation and evolution through collection and study of extraterrestrial materials, no matter what their background." I, therefore, intend to build on previous efforts to keep academics, students, and meteorite collectors working collectively towards a common goal. Hence, I particularly wish to thank our Membership Committee for designing our new website, which I believe will be an invaluable tool.

Last but not least, I wish to mention the three new sample-return missions which will make our scientific future even brighter: the Chang'e 5 mission, which is due to come back any day as I write; the Hayabusa 2 mission, which has successfully brought back samples from asteroid Ryugu; and the OSIRIS-Rex mission, which has already sampled asteroid Bennu and will return in a few years. The samples brought back by these outstanding missions will keep us busy for years and help us better understand the connection between the meteorites in our collections and the asteroids we observe with our telescopes. I am really looking forward to the first scientific results based on these new samples.

Brigitte Zanda, President of the Meteoritical Society

OFFICERS AND COUNCIL MEMBERS



Nancy Chabot



Munir Humayun



Tasha Dunn



Mini Wadhwa

The Meteoritical Society will consist of a number of new officers this year. Brigitte Zanda (see above) will be transitioning from Vice President to President, and Nancy Chabot (Johns Hopkins University Applied Physics Laboratory, Maryland, USA) will be the incoming Vice President. Munir Humayun (Florida State University, USA) will continue to serve as Secretary, and Tasha Dunn (Colby College, Maine, USA) will continue as Treasurer. Meenakshi Wadhwa (Arizona State University, USA) will continue to serve, albeit in her new capacity as Past-President. We thank this new slate of officers in advance for their efforts to lead the Meteoritical Society through the next two years.

The Meteoritical Society Council will consist of Neyda Abreu (NASA's Langley Research Center, Virginia, USA), Henner Busemann [Eidgenössische Technische Hochschule (ETH) Zürich, Switzerland], Sarah Crowther (University of Manchester, UK), Denton Ebel (American Museum of Natural History, New York, USA), Chris Herd (University of Alberta, Canada), Kuljeet Kaur Marhas (Physical Research Laboratory, Ahmedabad, India), Takashi Mikouchi (The University Museum, The University of Tokyo, Japan), and Ann Nguyen (NASA's Johnson Space Center, USA).

We would like to take this opportunity to sincerely thank Trevor Ireland, who is rotating off the council after six years as an officer, and Cari Corrigan, Pierre Rochette, Mario Trieloff, and Maria Eugenia Varela, who are rotating off as councilors, for their years of dedicated service to keeping the Meteoritical Society operating smoothly!

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NEW METEORITICAL SOCIETY FELLOWS



Natalia Artemieva



Linda Elkins-Tanton



Richard Greenwood



Hope Ishii



Candace Kohl



Maria Lugaro



Tomoki Nakamura



Takaaki Noguchi



Gordon Osinski

WORKSHOP: FRONTIERS IN MARS SAMPLE CHRONOLOGY

Determining the absolute ages of Mars samples is a key objective for current and future Mars exploration. Recent work on Martian meteorites has pushed the analytical envelope in Mars sample geochronology; this work informs future plans for the geochronology of samples returned to Earth through the Mars Sample Return mission, an effort that starts with the collection and caching of samples by the NASA Mars 2020 mission. The goal of this workshop is to review recent results; identify and elaborate on the frontiers in spatial and isotopic resolution, including on minimum sample mass; and consider the advances that will be required to optimize the geochronology of future samples of Mars.

DATES: 24–25 March 2021. See website <https://www.minersoc.org/mars-chron.html>.

SPONSORS: the Mineralogical Society of Great Britain and Ireland and The Meteoritical Society.

CO-CONVENERS: James Darling (University of Portsmouth, UK) and Christopher Herd (University of Alberta, Canada).

RENEW YOUR MEMBERSHIP NOW!

You can easily renew online at <https://meteoritical.org/membership/join>.

* Note that this is a new website for membership renewal.

THE BARRINGER FAMILY FUND FOR METEORITE IMPACT RESEARCH

The Barringer Crater Company has established a special fund to support field work by eligible students interested in the study of impact cratering processes. The Barringer Family Fund for Meteorite Impact Research will provide a number of competitive grants in the range of \$2,500 to \$5,000 for support of field research at known or suspected impact sites worldwide. Grant funds may be used to assist with travel and subsistence costs, as well as laboratory and computer analysis of research samples and findings. Masters, doctoral, and postdoctoral students enrolled in formal university programs are eligible. Application to the fund will be due by 9 April 2021, with notification of grant awards by 11 June 2021.

Additional details about the fund and its application process can be found at: http://www.lpi.usra.edu/science/kring/Awards/Barringer_Fund.

ANNUAL MEETING SCHEDULE

2021	14–21 August	Chicago (Illinois, USA)
2022	Dates TBD	Glasgow (Scotland, UK)
2023	3–8 July	Perth (Western Australia, Australia)
2024	Dates TBD	Brussels (Belgium)

IN MEMORIAM: PROFESSOR H. JAY MELOSH

Professor H. Jay Melosh passed away on 11 September 2020. Jay's research career spanned five decades and four institutions and his research interests were diverse and influential. His work on the geophysics of impact processes revolutionized our understanding of not only impact processes themselves but also the important roles that impacts have played in the evolution of the solar system, Earth, and the development of life.



Jay was born on 23 June 1947 in Patterson (New Jersey, USA). He earned a bachelor's degree (Magna Cum Laude) in physics from Princeton University (New Jersey, USA) in 1969, then attended the California Institute of Technology ("Caltech", USA), earning his PhD in physics and geology in 1972 under the advisement of Nobel laureate Murray Gell-Mann. Although Jay published a highly cited paper on quarks in 1974 while a research associate at the Enrico Fermi Institute at the University of Chicago (Illinois, USA), his passion was geophysics.

In 1976, Jay took a faculty appointment at Caltech. During this time Jay explored the role of impacts in determining the orientation of the Moon, as well as the relationship between the Moon's orientation and mascons. Jay continued to study these enigmatic features as a member of the *GRAIL* lunar spacecraft scientific team, which confirmed the link between mascons and the impact cratering process. Jay joined the State University of New York's Stony Brook University (USA) in 1979 where he was an associate professor of geophysics. In 1982, Jay joined the Planetary Sciences faculty at the University of Arizona (USA), where he continued groundbreaking research on the effects of impacts on Earth and other planetary bodies, writing the book *Impact Cratering* in 1989. Together with his students and postdoctoral researchers, he explained how impacts



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on Mars could deliver meteorites to Earth, explored details of how Earth's Moon could have been formed by a giant impact 4.5 Gy, and performed detailed theoretical calculations that led to a more complete understanding of the Chicxulub impact (Mexico). In 2009, Jay moved to Purdue University (Indiana, USA) where he built a planetary science group within the Earth, Atmospheric, and Planetary Sciences Department. At Purdue, Jay and his students continued investigating impact processes and other geophysical phenomena. His work spanned a wide variety of celestial objects: Earth and its Moon, Mercury, Venus, Mars, Pluto, comets, and the giant planet satellites Callisto, Ganymede, Europa, Titan, Miranda.

Jay viewed his role as an educator and mentor with great enthusiasm. Jay advised over 20 graduate students who ultimately received PhDs in the disciplines of geology, planetary science, and physics. Jay also sponsored many undergraduate students, helping them early in their careers to explore what it meant to be a scientist. Jay had a deep passion for geologic field studies, and his field trips at Arizona were legendary. While the development of geologic field expertise was the priority, these trips were seldom without high adventure, much to the dismay of university officials responsible for the repair of vehicles damaged or sacrificed for the sake of learning. Late in his tenure at Arizona, a survey of alumni revealed that many viewed Jay's field trips as the most valuable learning experience they had in graduate school. His understanding of geologic processes and his ability to explain them in terms that not only educated but that engaged students, and his colleagues, was unique. Jay encouraged students to take scientific chances, not to be afraid to consider new ideas or to revisit old ideas that had previously been overlooked. He considered school a time to explore and to make the most of opportunities, even if not directly related to one's research. Jay's love of learning, of questioning established wisdom (often with a mischievous grin), and of searching for answers to mysteries—new or old—were inspiring and exemplified just how much fun scientific investigation can be. He modeled this in his own career.

Jay's scientific accomplishments were widely recognized by the scientific community. He was an active member of the National Academy of Sciences of the United States of America and had been inducted as a Fellow in the American Association for the Advancement of Science, the American Geophysical Union, the Geological Society of America, and the Meteoritical Society. Among his many awards and citations, Jay received the Barringer Medal from the Meteoritical Society in 1999 and the Gilbert Award from the Geological Society of America in 2001. Most recently, he was given the McCoy Award at Purdue University.

Jay is survived by his wife of 18 years, Ellen Germann, and by his sons, Nick and Greg, and their 5 children. Ellen's daughter and son, Margaret and Stephan, also have children who consider Jay to be their "Grandpa Jay."

To view a more complete version of this memorial, see <https://meteoritical.org/news/h-jay-melosh-1947-2020>.

**Marc W. Caffee, Timothy D. Swindle,
Elizabeth (Zibi) P. Turtle**

EUROPEAN JOURNAL OF MINERALOGY: NEW SERIES OF SPECIAL ISSUES

The *European Journal of Mineralogy* (EJM) has launched a new series of special issues with the overarching title of **Probing the Earth: Experimental and Theoretical Advances**.

Two special issues scheduled for 2020–2021 are the following:

Probing the Earth: Reviews of OH Groups in Anhydrous and Hydrated Minerals

SUBMISSION:

01 March 2020–31 March 2021

EDITORS: Patrick Cordier,
Etienne Balan, István Kovács,
and Roland Stalder

Probing the Earth: Experiments and Mineral Physics at Mantle Depths

SUBMISSION:

01 February 2020–30 June 2021

EDITORS: Elisabetta Rampone, Patrizia Fumagalli, Stephan Klemme, Monika Koch-Müller, Didier Laporte, and Max Wilke



More information can be found at <https://www.european-journal-of-mineralogy.net>.

Authors will profit from the reduced article processing charge costs devoted to SIMP members (€40 per page). In addition, for each special issue the senior editor will have the possibility of selecting two or three papers for Gold Open Access.

We encourage all the SIMP community to take advantage of this opportunity.

Elisabetta Rampone

Chief Editor of *European Journal of Mineralogy*

GOLD OPEN ACCESS ON EJM: A 2021 PROMOTION FOR YOUNG RESEARCHERS WHO ARE SIMP MEMBERS

The SIMP offers a special promotion for Gold Open Access publication, devoted to young (under 35 years) SIMP members.

The society will provide a contribution of €600 per article (corresponding to 10 pages free of charge) for open access publication of 5 papers (total cost €3,000) that are submitted in 2021 by young SIMP members who are also the corresponding authors.

When submitting the paper, the corresponding author must indicate her/his willingness to apply for the **Special Young Researcher SIMP Promotion 2021** to get full payment of open access costs for 10 printed pages.

The promotion will apply to the *first 5 papers* that are accepted in 2021.

The papers can be submitted on different topics (i.e., to different topic editors). Managing Editor Ingrid Jannick will track the entire process and inform the society accordingly.

We encourage all members of the young SIMP community to benefit from this opportunity.

Elisabetta Rampone

Chief Editor of *European Journal of Mineralogy*