

PLANETARY GEOLOGY DIVISION NEWSLETTER

The Planetary Geology Division of the Geological Society of America

Volume 37, Number 1

January 2019

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PGD Chair Sharon Wilson Purdy from
*The Center for Earth and Planetary Studies,
Smithsonian Institution, Washington, D.C.*

Message from the Chair

Greetings and happy new year to you all! As the incoming Chair of the Planetary Geology Division (PGD) for the 2018-2019 term, I look forward to serving the Geological Society of America (GSA) and our broader planetary community. Please join me in welcoming Nick Lang as our incoming Secretary/Treasurer, and Mallory Kinczyk as

our Junior Student Advisory Member. We will greatly miss our Past Chair, Brad Thomson, and our outgoing Student Advisory Member, Elena Favaro – thank you both for your service and dedication to the PGD Board.

The annual meeting of GSA in Indianapolis this past November was a huge success, with twelve amazing planetary topical sessions that covered a range of geologic and geomorphic processes throughout our solar system. Many thanks to the members of our community who propose and organize these sessions, in addition to Debra Buczkowski who continues to volunteer her time to organize the PGD sessions for the annual meeting as part of the Joint Program Technical Committee – we are all very grateful!

At the annual meeting, we honored Jeff M. Moore as our 2018 G. K. Gilbert Award Winner, the division's highest honor, in a very entertaining session that covered planetary surface processes on Mars and the icy worlds in our solar system. We celebrated Dr. Moore, in addition to our three PGD-Affiliated GSA Fellows elected in 2018, Janice L. Bishop (SETI Institute), John A. Grant (Smithsonian Institution) and Jani Radebaugh (Brigham Young University), at our annual banquet. It was wonderful to see so many of you there, and a big shout out to 1st Vice Chair Debra Needham for organizing such a great event. Please note that nominations for the 2020 G. K. Gilbert award are due no later than December 1, 2019.

The Stephen E. Dwornik awards, given out for the best student presentations at the annual Lunar and Planetary Science Conference (LPSC), has always been a top priority within the PGD. The PGD organizes this popular competition, which continues to draw a growing number of applicants each

year. To keep pace with our growing community of planetary students, we now include an honorable mention category for each graduate and undergraduate category, for both oral and poster presentations. Therefore, the time has come to kick off a fundraising campaign to ensure the Dwornik Award is self-sustaining going forward. Please stop by the PGD booth at LPSC this year for more information (and possible gifts with donation!).

You may all remember voting to amend our bylaws in 2018 to allow for the impeachment of any PGD Board Officer “who is convicted of a felony, or who brings discredit to the GSA or the Division in any way...” We strive as a division to remain committed to inclusivity, regardless of gender, race, orientation, and age, and remain intolerant to all forms of sexual harassment. Please feel free to contact me or any of the PGD Officers (listed at the end of this newsletter) if you have concerns about issues of diversity or abuse in our community, or if you have ideas on how we can work together to achieve a more inclusive and safe environment in our division and broader community.

Planetary exploration in 2019 will be filled with a treasure trove of data and discoveries from ongoing missions, as well as new missions including InSight on Mars, OSIRIS-Rex at asteroid Bennu, New Horizon's recent fly-by of 2014 MU69 in the Kuiper belt, and China's Chang'e-4 on the Moon. It is indeed an exciting time for planetary science.

Cheers to a healthy and productive 2019,

Sharon Wilson Purdy
PGD Chair

Upcoming 2019 Annual Meeting



Mark calendars for the upcoming 2019 GSA Annual Meeting in Phoenix, Arizona from September 22-25.

Abstract deadline: 25 June 2019

Note that the abstract deadline is earlier than it has been lately. More information about the meeting can be found at:

http://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2019.aspx

Call for Technical Session proposals: Help ensure that your area of research and expertise is represented in next year's technical program. Any individual or geosciences organization is welcome to suggest topics and submit proposals for both Topical Sessions and Pardee Keynote Symposia. Pardee Symposia are high-profile sessions on significant scientific developments, with invited speakers only. Topical Sessions are a combination of invited and volunteered papers. Unique formats are allowed, but must be outlined in the proposal along with the technical support needs. Sessions that promote discussion are encouraged. **Due February 20, 2019.**

<https://gsa.confex.com/gsa/2019AM/cfs.cgi>

Call for Short Course proposals: Have something that your peers need to know? Lead a Short Course at the GSA 2019 Annual Meeting in Phoenix. Courses can develop

professional, teaching, and research skills at all levels. **Due February 1, 2019.**

<https://gsa.confex.com/gsa/2019AM/shortcourse/cfs.cgi>

Notes from the 2018 GSA Annual Meeting in Indianapolis, IN



The 2018 annual GSA meeting was held in Indianapolis, IN November 4–7. The meeting continues to be a major annual event for the PGD community.

Among the meeting highlights was the annual PGD banquet and celebration of **Dr. Jeff Moore**, the recipient of the 2018 G.K. Gilbert Award, our division's highest honor. See Page 11 for more details.

Our division hosted two special sessions during the conference in memory of our colleagues **Dr. Nathan Bridges** and **Dr. Larry Taylor**. These sessions were:

Planetary Aeolian Geology from Outcrop to Orbit: Nathan Bridges Memorial Session.

Planetary Mantles – Using Samples to Explore Earth, the Moon, and Mars: Memorial Session in Memory of Lawrence A. Taylor.

A unique and wonderful part of GSA is the ability to organize and participate in personalized sessions such as these in order to honor our colleagues. So thank you to everyone who organized, presented in, and attended these two sessions.



Dr. Moore, recipient of the 2018 Gilbert Award, speaking during the PGD annual banquet at GSA in Indianapolis, IN.

Our division also continued the tradition of hosting a booth in the Exhibition Hall where we sold planetary-related gear and held daily meteorite raffles. Staffed by PGD officers past and present throughout the conference poster sessions, the booth constitutes our chief fundraising effort for the year and is the primary means by which our division pays for student travel awards to the annual GSA meeting. Providing exemplary students the means to present their best work at a national

conference is a powerful career development tool, and we look forward to continuing to support their endeavors. **Please share with us any feedback you might have about the booth!**



PGD officers past and present enjoy the division's annual banquet.

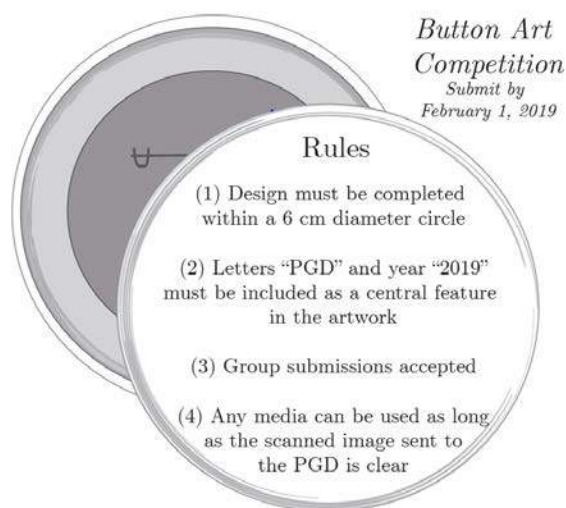
Announcement: Button Art Competition

Your design could be featured at LPSC!

We are looking for a new design for Planetary Geology Division buttons. All submissions must be sent to Mallory Kinczyk (mallory.kinczyk@ncsu.edu) by **5pm February 1, 2019**. Rules: (1) Design must be completed within a 6 cm diameter circle. (2) Letters "PGD" and year "2019" must be included as a central feature in the artwork. (3) Group submissions are acceptable. (4) Any media/software can be used as long as the scanned image sent to the PGD is clear.

Additional details: Submission must include brief biographical information about the artist, a brief (500 character limit) description of the artwork, a PDF of the artwork and a JPEG (min 600 dpi) of the artwork. All PGD members may vote from the semi-finalists' buttons (as determined by PGD officers) starting February 5, 2019. The winner will be announced February 12, 2019. Buttons will

be distributed at LPSC and the GSA annual meeting in Phoenix.



Congratulations to **Sarah Roberts** who was last year's winner of the *Button Art Competition*! Sarah is a PhD student at the University of Tennessee studying redox processes in planetary melts. Her design is shown below!



2018 Award Recipients

2018 Dwornik Awards

The judging panel at the 49th LPSC had its hands full with another crop of outstanding entries for the 2018 Dwornik Prize—we received 49 entries for the oral presentations (45 grads, 4 undergrads) and 76 entries for poster presentations (55 grads, 21 undergrads). The PGD officers would like to thank all of our members who attended the 49th LPSC and assisted in judging for the 2018 Dwornik awards. It would simply not be possible to judge the student awards without the help of our volunteers. Please consider judging at LPSC 2019!

The 2018 Dwornik winners are:

Best Graduate Oral Presentation: Xinting Yu, Johns Hopkins University, "Where does Titan sand come from: Insight from Mechanical Properties of Titan Organic Analogs."

Honorable Mention, Graduate Oral: Erica Jawin, Brown University, "Assessing the volcanic history of the Prinz-Harbinger region on the Moon using radar and spectroscopy."

Best Graduate Poster: Daniel Dunlap, Arizona State University, "Pb-Pb Age of the ungrouped achondrite NWA 11119: Timing of extraterrestrial silica-rich volcanism."

Honorable Mention, Graduate Poster: Ellen Leask, California Institute of Technology, "New possible CRISM artifact at 2.1 micrometers and implications for orbital mineral detections."

Best Undergraduate Oral: Jordan Bretzfelder, University of Southern California, "Divining the Lunar mantle: Spectral analysis of the Imbrium Basin."

Honorable Mention, Undergraduate Oral: **Aleksandra Gawronska**, University of Notre Dame, “Implications of bimodal olivine compositions in VHK basalts.”

Best Undergraduate Poster: **Samuel Cartwright**, Middlebury College, “Geology of the Lunar Moscoviense Basin.”

Honorable Mention, Undergraduate Poster: **Charlene Detelich**, North Carolina State University, “Investigating the morphology of the Iapetus Equatorial Ridge.”

Background: The Dwornik Award was established in 1991 with a generous endowment by Dr. Stephen E. Dwornik, who wished to encourage students who are U.S. citizens to become involved with NASA and planetary science. Applicants for this award must be a U.S. citizen that is currently enrolled as a student at a U.S. or international institution, or a non-U.S. citizen currently enrolled as a student at a U.S. institution. The award consists of a plaque and a \$500 check (graduate) / \$250 check (undergraduate), and is given for those student presentations (poster and oral) at the annual *Lunar and Planetary Science Conference* (LPSC) hosted by the Lunar and Planetary Institute and NASA Johnson Space Center in Houston, Texas that are judged to be of the highest caliber. The deadline for entry was **Wednesday, January 9, 2019**, which was the day after LPSC abstracts were originally scheduled to be due. A link to the Dwornik The application is currently being updated, but the current application can be found here: http://rock.geosociety.org/pgd/Dwornik_application.pdf with more general information about the award here: <http://rock.geosociety.org/pgd/dwornik.html>.

Look soon for the updated application!

2018 Shoemaker Award

The 2018 Shoemaker Award was presented to **Pim Kaskes**, *Vrije Universiteit Brussel (Belgium)*. Mr. Kaskes is an MSc student who works on the Cretaceous-Paleogene (K-Pg) mass extinction. Specifically, he studies the petrography and geochemistry of ejecta material from proximal and distal K-Pg sites and compares it with impactites from the Chicxulub crater (e.g. IODP-ICDP core 364) to understand the sequence of events during and after the meteorite impact.

The Eugene M. Shoemaker Impact Cratering Award is for undergraduate or graduate students, of any nationality, working in any country, in the disciplines of geology, geophysics, geochemistry, astronomy, or biology. The award, which will include \$3000, is to be applied for the study of impact craters, either on Earth or on the other solid bodies in the solar system. Areas of study may include but shall not necessarily be limited to impact cratering processes; the bodies (asteroidal or cometary) that make the impacts; or the geological, chemical, or biological results of impact cratering.

2018 Pellas-Ryder Award

The Pellas-Ryder award is given to the Planetary Science Best Student Paper published during the preceding year. The award is jointly given by the Meteoritical Society and the Planetary Geology Division of the Geological Society of America and consists of a check for \$500 from the Meteoritical Society and a plaque awarded by the PGD.

The 2018 Pellas-Ryder award was presented to **Emily Worsham**, *University of Maryland*, for her outstanding publication:

Characterizing cosmochemical materials with genetic affinities to the Earth: Genetic and chronologic diversity within the IAB iron meteorite complex, *Earth and Planetary Science Letters* (2017), v. 467, pgs. 157-166.

2018 GSA PGD Student Travel Grant

The Planetary Geology Division (PGD) of the Geological Society of America uses funds raised at the GSA PGD booth to offer 1-2 travel grants of \$500 to help defray costs for PGD student members who are traveling to the GSA Annual Meeting to present first-authored papers. Students may also receive a \$150 Honorable Mention travel grant to present their work at GSA.

The 2018 GSA PGD Student Travel Grants were awarded to:

Mallory Kinczyk, North Carolina State University (\$500).

Laura Fackrell, University of Georgia, Honorable Mention (\$150).

Catherine Hobart, Texas A&M University, Honorable Mention (\$150).

Joseph McCarthy, Mercyhurst University, Honorable Mention (\$150).

Interested and eligible students can find additional information about applying for PGD Student Travel Grants here:

<http://rock.geosociety.org/pgd/travel-grants.html>

2018 Ronald Greeley Award for Distinguished Service

Dr. Kelsi Singer, *Southwest Research Institute*, was awarded the 2018 Ronald

Greeley Award for Distinguished Service. Dr. Singer is past president of the St. Louis Chapter of the Association of Women in Science and is a Co-I on NASA's New Horizons mission.

This award may be given to those members of the PGD, and those outside of the Division and GSA, who have rendered exceptional service to the PGD for a multi-year period.

PGD-Affiliated GSA Fellows

We are pleased to announce that three PGD members were selected as GSA Fellows in 2018.

Dr. Janice L. Bishop, *The SETI Institute*. Dr. Bishop was nominated by Dr. Raymond Arvidson for her outstanding work as a spectroscopist who has used remote sensing to characterize key hydrated minerals on Mars. Her deep knowledge of mineral chemistry has allowed her to document quantitative relationships between spectra and mineralogy and make ground-breaking discoveries (e.g., making clays on Mars during warm climatic excursions).

Dr. John A. Grant, *Smithsonian Institution Center for Earth and Planetary Studies*. Elected to Fellowship as the 2018 Planetary Geology Division's G. K. Gilbert awardee.

Prof. Jani Radebaugh, *Brigham Young University*. Prof. Radebaugh was nominated by Prof. Eric Christiansen in recognition of her work on Titan and Io. This work has led to fundamental understanding of how these outer solar system objects evolve today. She has also made notable efforts to have her work reach a broad audience of non-scientists.

Congratulations to the newly selected PGD-affiliated GSA fellows!

Call for Applications & Nominations

Student Advisory Member: The Planetary Geology Division (PGD) of the Geological Society of America will be soliciting nominations for the position of Junior Student Advisor to the PGD in **June, 2019**. This position is open to all interested graduate and undergraduate students, offering students an opportunity to actively engage with the PGD officers and the planetary community in an important role on this service committee. Responsibilities include participating in regularly scheduled PGD telecons, updating the Student Opportunities page on the PGD website (<http://rock.geosociety.org/pgd/student-opportunities.html>), helping with the PGD booth during the annual meeting, and serving as the PGD representative to the GSA Student Advisory Council. This is a two-year position (second year as Senior Student Advisor), and includes a partial travel award to attend the annual GSA meeting each year. Interested students should send a current CV (include college major and advisor) and a short justification (~300-500 words) on why they would be interested in serving as Student Advisor.

June 1, 2019 is the application due date. Please send completed application materials as a single pdf file to PGD 1st Vice-Chair Emily Martin by.

Dwornik Award: This award is open for U.S. citizens that are currently enrolled as students at a U.S. or international institution, or non-U.S. citizens currently enrolled as a student at a U.S. institution. The application form to apply for a Dwornik Award is due **the day after Lunar and Planetary Science Conference (LPSC) abstracts are due.** More information can be found here:

<http://rock.geosociety.org/pgd/dwornik.html>.

Questions regarding the Dwornik awards should be directed to 2nd Vice-Chair Debra Needham (debra.h.hurwitz@nasa.gov).

Due to the advent of the undergraduate awards, the Dwornik fund is no longer self-sustaining. We hope the fund will continue to grow and provide new opportunities, and thus encourage your donations. You can donate at the GSA Foundation webpage: [/www.gsafweb.org/donate/](http://www.gsafweb.org/donate/)

In addition, anyone interested in serving as a judge for the Dwornik competition at this year's LPSC please note that there is now a place on your LPSC abstract submission form where you can indicate your willingness. Thanks in advance!

Pellas-Ryder Award: This award, offered jointly with the Meteoritical Society, is an opportunity for student first authors publishing their work in English to receive recognition for outstanding scientific achievement. The deadline for nominations is **January 31, 2019**. See this link for more details:

<http://rock.geosociety.org/pgd/pellas-ryder.html>.

Papers will be considered for the Award by nomination to the Selection Committee. Committee members, full members of the Geological Society of America, full members of the Meteoritical Society, or full members of any of their associated societies may make nominations. The nomination may be addressed to the Secretaries of either the Planetary Geology Division of the GSA or the Meteoritical Society, who will forward the nominations to the Chair of the Selection Committee. (Members of the Selection

Committee may make nominations directly to the Chair of the Committee.)

Alternatively, nominations can be made directly to the Chair of the Selection Committee. Submissions for consideration should be sent (as PDF documents) by email to Prof. Jon M. Friedrich (friedrich@fordham.edu). Submissions also may be sent by regular mail to:

Jon M. Friedrich
Department of Chemistry
Fordham University
441 East Fordham Road
Bronx, NY 10458

Questions or inquiries may be directed via email to Jon M. Friedrich.

Ronald Greeley Award for Distinguished Service:

All members are encouraged to submit nominations for the Ronald Greeley Award for Distinguished Service. This award was established in 2011 as the PGD Distinguished Service Award, and in 2012 the PGD membership voted to change the name to commemorate Ronald Greeley and his contributions to the Planetary Geology Division. This award may be given to those members of the PGD, or those outside of the Division and GSA, who have rendered exceptional service to the PGD over a multi-year period. The award is not open to currently serving Division officers, but may be awarded to past officers who have provided exceptional service to the PGD after their term on the Management Board has ended. *Nominations for the award, which should include a description of what the nominee has given to the PGD community, may be made by any PGD member to 1st Vice-Chair Emily Martin (martines@si.edu) prior to **June 30, 2019**.* Approval of the award will be by majority vote of the Management Board. The award consists of a certificate signed by the Chair, and will be presented at the Division's Business Meeting/Awards

Reception at the Annual Meeting.

Eugene M. Shoemaker Award: Dr. Carolyn Shoemaker established the Eugene M. Shoemaker Memorial Fund for Crater Studies in memory of her husband in 1998. She established this endowment so that students will have an opportunity to pursue studies of impact craters, which were the focus of her husband's graduate studies and a large part of his professional career. Friends, scientific colleagues, and companies have contributed to the fund (and continue to do so) to ensure its success.

The Shoemaker Impact Cratering Award is for undergraduate or graduate students, of any nationality, working in any country, in the disciplines of geology, geophysics, geochemistry, astronomy, or biology. The award, which will include \$3000, is to be applied for the study of impact craters, either on Earth or on the other solid bodies in the solar system. Areas of study may include but shall not necessarily be limited to impact cratering processes; the bodies (asteroidal or cometary) that make the impacts; or the geological, chemical, or biological results of impact cratering. *Applications are typically due **late August/early September 2019**, and must include a CV, research proposal, timeline and budget, and two letters of recommendation.* For more details and to access the online application forms, go to:

http://www.lpi.usra.edu/science/kring/Awards/Shoemaker_Award/.

Questions regarding this award should be directed to Dr. David Kring, (kring@lpi.usra.edu). The Planetary Geology Division officers strongly encourage all of our Division members to actively recruit promising students to apply for this prestigious award.

Student Travel Grants: As in recent years, the PGD is offering two travel grants to help defray costs for PGD student members who are traveling to the GSA Annual Meeting to present first-authored papers. Applicants for student travel awards must:

1. Be first author and presenter of a paper that has been submitted to (and accepted for presentation at) the GSA Annual Meeting.
2. Be a Student Member of both GSA and the Planetary Geology Division.
3. Be registered for the meeting before applying for a travel grant.
4. Submit a completed Travel Grant Application, current CV, and a short justification (~300-500 words) for why travel funding is needed.

Checks will be presented at the meeting, following the student's talk or poster. The Application Form and more information is available at:

<http://rock.geosociety.org/pgd/travel-grants.html>

Completed application materials should be submitted as a single PDF file, due **TBD**, to PGD 2nd Vice- Chair Deborah Needham (debra.m.hurwitz@nasa.gov).

Upcoming Meetings & Workshops

GSA Penrose Conferences and Thompson Field Forums: The GSA Penrose Conferences and Thompson Field Forums are undergoing an upgrade and a new proposal process will be rolled out in fall of 2019! GSA is currently not accepting new proposals. However, look for additional information at GSA 2019 Phoenix, 22-25 September. If you have any questions please

feel free to contact Becky Sundeen (bsundeen@geosociety.org).

Additional Meetings: For more on upcoming meetings and conferences in the planetary science community check out the Lunar and Planetary Institute's meeting calendar:

<https://www.hou.usra.edu/meetings/calendar/>

Student Internship Opportunities

GSA Opportunities:

National Park Service, Geoscientists-in-the-Parks (GIP) Program, Summer 2019. GSA is now recruiting applicants for more than 80 NPS Geoscientists-In-the-Parks (GIP) opportunities taking place during summer 2019. Participants are paid a minimum of \$350/week stipend, travel allowance, provided housing (or a housing allowance) for the duration of the project, and will be eligible for an AmeriCorps™ education award. Applications are due by **February 3rd, 2019** (11:59 pm MST). (<https://www.geosociety.org/GSA/GSAToday/jobs/2019-01-09-03-NPSGIP.aspx>)

GSA GeoCorps America Program, Summer 2019. GSA is now recruiting applicants for dozens of GeoCorps America opportunities taking place during summer of 2019. GeoCorps participants have the opportunity to work at a Bureau of Land Management (BLM) or U.S. Forest Service (USFS) site and gain valuable work experience. Participants are paid a minimum of \$10.60/hr. Applications are due by **February 3rd, 2019** (11:59 pm MST). (<https://www.geosociety.org/GSA/GSAToday/jobs/2019-01-09-04-GEOCORP.aspx>)

Lunar and Planetary Institute Opportunities:

Exploration Science Summer Intern Program. Work with a scientist mentor to integrate science priorities with NASA's lunar exploration initiatives. Applications are due **January 25th, 2019**. (https://www.lpi.usra.edu/exploration_intern/)

Summer Undergraduate Program for Planetary Research. Qualified undergraduates are paired with NASA-sponsored planetary geology and geophysics investigators at research locations around the country for eight weeks during the summer. Application deadline is **February 4th, 2019**. (<https://www.lpi.usra.edu/suppr/>)

Membership and Finance

We continued to see a strong number of Planetary Geology Division affiliates this past year. We had 797 affiliates as of the end of December 2018 with 571 paid through 2019. If you have not already done so, please remember to renew your membership at GSA annual renewal time and encourage your students and colleagues to join. Division dues are: student, recent graduate, or K-12 teacher: \$5, Professional member: \$10. Your dues go a long way to helping get our science represented and keeping it accessible.

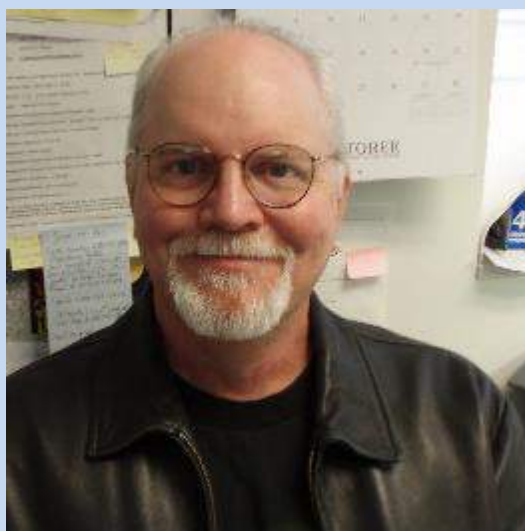
Number of division affiliates	Year
797	Dec 2018
810	Aug 2017
879	Aug 2016
774	Aug 2015
829	Aug 2014
658	Aug 2013
670	Aug 2012
615	Aug 2011
290	Aug 2010

According to GSA policy, students can join their first division at no cost. Having a vibrant student membership is wonderful and vital for the future, but the immediate trade-off is reduced revenue. Recall that the principal annual expenditure of our division is our general student travel awards. Help us sustain a strong division by renewing, asking others to join, and volunteering. Thanks for your support!

Financial summary: As of December 31, 2018, PGD has an asset balance of \$24,178. Our total revenue was \$7,238, consisting of \$2,092 in division dues and \$5,145 in donations; \$3,288 of those donations were at GSA in Indianapolis, so thank you for your strong support at that meeting! Expenses during this period were \$3,221, including in part \$1,450 in student awards and grants. We look forward to another great year in 2019!

ANNOUNCING THE 2018 G.K. GILBERT AWARD WINNER

Dr. Jeffrey Moore, NASA Ames Research Center



Previous Gilbert Award Recipients: E. Shoemaker (1983); G. Wetherill (1984); W. Alvarez (1985); R. Baldwin (1986); D. Gault (1987); D. Wilhelms (1988); H. Schmitt (1989); H. Masursky (1990); J. Guest (1991); J. Wood (1992); M. Carr (1993); S. R. Taylor (1994); B. Lucchitta, 1995); R. Sharp (1996); R. Greeley (1997); J. Adams (1998); S. Solomon (1999); L. Soderblom (2000); H. J. Melosh (2001); J. Head (2002); R. Phillips (2003); W. Hartmann (2004); L. Wilson (2005); M. Gaffey (2006); M. Zuber (2007); P. Christensen (2008); R. Strom (2009); C. Pieters (2010); S. Squyres (2011); P. Schultz (2012); A. Howard (2013); B. McKinnon (2014); M. P. Golombek (2015); M. D. Dyar (2016); J.A. Grant (2017).

The 2018 G. K. Gilbert awardee is **Dr. Jeffrey Moore**, NASA Ames Research Center.

“Dr. Moore is a consummate planetary geologist. His strong background in geology provided the tools to interpret planetary landscapes and the physical processes that create them through fieldwork, interpretation of remotely-sensed images and data, theory, and laboratory experimentation. He was a pioneer in recognizing and characterizing deltaic and alluvial fan landforms on Mars and determining the fluvial discharges and formation time necessary to create them. Jeff and colleagues have demonstrated that a terminal epoch of intense, integrated valley network formation occurred at the close of the Noachian. This was followed by a long period of episodic fluvial activities forming shallow valleys, fans, and deltas, and an ice-covered lake in the Hellas basin. He has made equally important contributions to our understanding the role of ice sublimation, condensation, and flow processes in landform evolution in outer solar system, including the Jovian and Saturnian satellites and Pluto. Jeff has questioned the role of cryovolcanism on Titan, suggesting rather that exogenic processes dominated surface evolution. He was imaging and geology team leader for the New Horizons mission to Pluto, assuring that Pluto and Charon would be well covered with high resolution stereo imaging. As team leader, Jeff knows how to get things done and provided a productive and amiable environment, contributing greatly to the scientific impact of the encounter. Additionally, he has made continuing contributions to mission planning on both Mars and for the outer Solar System. In summary, Dr. Moore’s contributions to planetary geology have been immense and crucially important to understanding the geologic environment of solid bodies beyond the orbit of Earth. He is well known and well-respected in the planetary community for both his scientific contributions and his service to the community. He richly deserves being recognized with the G. K. Gilbert Award from the Geological Society of America.”

— Dr. Alan Howard

Dr. Moore earned a B.A. in History from the University of Oklahoma. He went on to earn a B.S. in General Geophysics and then his M.S. and Ph.D. in Geology from Arizona State University. He also served in the U.S Army as a Lieutenant, Tank Platoon Leader, and Battalion Staff Officer.

We need your help!

This would be a great time to make a contribution to the Dwornik, Shoemaker, G. K. Gilbert or student travel grant funds! Unlike many other charitable donations, your donation to these funds will produce positive results you can see for yourself as you encourage and support planetary scientists, both current and future. Donations can either be made online (<https://www.gsafweb.org/donate/>) or by mail. If by mail, please include a check or money order, made payable to *Planetary Geology Division, GSA*.

YES I have enclosed a check as a donation to:

<i>The Dwornik Fund</i>	amount \$(_____)
<i>The Shoemaker Fund</i>	amount \$(_____)
<i>The G. K. Gilbert Fund</i>	amount \$(_____)
<i>PGD Student Travel Grants</i>	amount \$(_____)

WHEN MAKING A DONATION, PLEASE INCLUDE THIS DONATION FORM AND PAYMENT CHECK IN AN ENVELOPE AND MAIL THEM TO:

The Geological Society of America
P.O. Box 9140
Boulder, CO 80301-9140.

Need more information about PGD? Check out our website:
<https://community.geosociety.org/pgd/aboutus/about>

2018-2019 Division Officers



(Chair) Wilson Purdy, Sharon A.
Research Interests: I investigate Mars geology, geomorphology, landscape evolution, climate history and geologic mapping. Affiliation: Center for Earth and Planetary Studies, Smithsonian National Air and Space Museum, Washington, DC 20013; purdys@si.edu



(1st Vice-Chair) Martin, Emily S.
Research Interests: I am interested in studying icy satellites, tectonics, faults and fractures, and geologic mapping. Affiliation: Center for Earth and Planetary Studies, Smithsonian Institution, National Air and Space Museum, Washington, DC 20013; martines@si.edu



(2nd Vice-Chair) Needham, Debra H. Research Interests: I study planetary volcanology and lava flow emplacement dynamics, and I work with engineers to integrate science in robotic and human exploration. Affiliation: NASA Marshall Space Flight Center, Huntsville, AL, 35805; debra.m.hurwitz@nasa.gov



(Secretary-Treasurer) Lang, Nicholas P. Research Interests: I use geologic mapping to understand volcanic and tectonic processes that have occurred on Earth, Venus, and Mars. Affiliation: Dept. of Geology, Mercyhurst University, Erie, PA; nlang@mercyhurst.edu



(Past-Chair) Thomson, Bradley J.
Research Interests: I am interested in understanding the nature and timing of the physical processes that have shaped the surfaces of planetary bodies, including impact, aeolian, fluvial, lacustrine, and volcanic processes. Affiliation: Dept. of Earth and Planetary Sciences, University of Tennessee, Knoxville, TN 37996; bthom@utk.edu



(Senior Student Advisory Member) Crane, Kelsey. Research Interests: I investigate planetary structural geology, terrestrial tectonic histories, and structural field work. Affiliation: Structural Geology/Geomechanics Group, Department of Geology, University of Georgia, Athens, GA, 30602;



(Junior Student Advisory Member) Kinczyk, Mallory. Research Interests: I use remote sensing and numerical modeling techniques to investigate the cratering and tectonic histories of icy satellites. Affiliation: Planetary Research Group, Dept. of Marine, Earth, and Atmospheric Sciences North Carolina State University, Raleigh, NC 27695; mallo-ry.kinczyk@ncsu.edu