Welcome everyone to a new year! As the current 2014-2015 Chair of the Planetary Geology Division, I would like to once again thank the PGD membership for their continued support of our division. Your support was especially evident during the recent 2014 Annual GSA meeting in Vancouver. Despite the expense of this international meeting, there was a great turnout for PGD. All of our PGD technical sessions were heavily attended and received great reviews. Once again our PGD booth was a tremendous success, allowing us to support our student travel awards. What a fantastic way to start off our new year!

The GSA PGD continues to work with the AGU Planetary Sciences Section, the AAS Division of Planetary Sciences and The Planetary Society, to advocate for a restoration of federal funding to planetary science. As you all know from our
newsletters over the past couple of years, planetary sciences have suffered disproportionate cuts in federal funding in recent years. We are making progress, but we’re not quite there yet. Please voice your position to your Senators – and www.planetary.org makes it easy!

The PGD officers would like to thank all of the members who attended our Awards Banquet. This banquet, which was adopted four years ago, continues to be popular. Past-chair Devon Burr entertained us this year with an amusing (and informative) planetary science trivia game. And Casey Dreier of The Planetary Society spoke to us all of the financial concerns mentioned in the previous paragraph. Although a serious topic, this too was both amusing and informative.

The PGD officers would like to introduce you to our new Student Advisory Member, Hannah Susorney. All of the GSA divisions introduced student members to their boards in 2014. Hannah has been an active participant in our committee meetings this year, giving us the benefit of her student perspective. We will be looking for a second Student Advisory Member in 2015, to work with Hannah as she starts her second year of service. Interested students should look on page 6 for instructions on how to apply.

This year the annual meeting is November 1-4 in Baltimore, MD. There are many interesting topical session proposed (see page 2), plus a PGD-sponsored field trip to view the Smithsonian meteorite collection. The field trip will be post-meeting on Thursday, November 5th. There is no charge for the field trip, and after the tour is over you will have the option of staying to see the rest of the museum. Special thanks to Dr. Cari Corrigan, Curator of Antarctic Meteorites at the National Museum of Natural History, for offering to lead the tour!

I’d like to close this message by reminding each and every one of you to renew your PGD membership, and to ask you to consider donating to one of our various programs that financially support students in our research community. Our membership has been steadily increasing over the past couple of years, but we are always interested in bringing in new members. For donations, please see the GSA Foundation website (https://www.gsaafweb.org/donate/) for a list of PGD programs that you can support. As always, you can find information about the division (including details on applying/nominating for one of our awards) on the PGD website (rock.geosociety.org/pgd). The other division officers and I are always happy to hear from you, so contact us for any reason.

I’ll conclude by thanking my fellow officers for their continued dedication and hard work in support of the PGD. It is a pleasure working with you. Thank you!

-Debra Buczkowski
PGD Chair

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**GSA Student Advisory Council**

The GSA Council established the Student Advisor Council (SAC) in April, 2014. Intended as a forum where student members of GSA can communicate directly with the Council, it consists of ~35 members drawn from all divisions and regions of GSA. The PGD representative to the SAC is Hannah Susorney (Johns Hopkins University). If you have any concerns or ideas about how GSA can better serve its large and growing student membership, please email Hannah at hsusorn1@jhu.edu.
Upcoming 2015 Annual Meeting

The upcoming fall annual meeting from 1 to 4 November, 2015 will mark GSA’s return to Baltimore, MD. Abstract submission is not yet open, but the first announcement can be viewed here: www.geosociety.org/meetings/2015/

While the final scientific program will depend on the abstracts submitted, an exciting and diverse array of PGD-sponsored and co-sponsored topical sessions have been proposed. Please consider submitting your abstract(s) to one of the following:

Understanding Mars’ geology, from orbiter to rover-based exploration: The GK Gilbert session. 
Advocates: Debra Buczkowski, Devon Burr
This session is convened in honor of this year's winner of the GK Gilbert award. The topic is focused on Mars geology, including Mars tectonics, the characterization of potential martian landing sites, and the expanded view of martian surface geology afforded by mobile robotic platforms (e.g., the Mars Pathfinder, Mars Exploration Rovers, or the Mars Science Laboratory missions).

T119. Extreme Karst: Exploring the Limits of Karstification on Earth and throughout the Solar System
Advocates: Karl Mitchell, George Veni
Karst processes and landscapes result from dissolution under radically different environments, chemistries, and timescales. This session quantitatively and theoretically compares different karst development in extreme or unusual circumstances, on Earth and other worlds.

T164. A Matter of Perspective: Integrating Macro- and Micro- Scale Evidence in Investigations of Magmatic Origins and Histories
Advocates: Tamara Carley, Tenley Banik, Lily Claiborne, Susanne McDowell
This session solicits abstracts regarding experimental and laboratory analyses of geologic processes and materials under the range of dynamic, kinematic, temperature, pressure, and chemical parameters found throughout the Solar System.

T172. Exploring the Sedimentary Rock Record of Mars
Advocates: Kathryn Stack, Kenneth Edgett, Kevin Lewis
This session will include a synthesis of sedimentary rocks on Mars and implications for surface processes, depositional settings, and environments of Early Mars.

T173. Geology of Dwarf Planets: First Results from NASA’s Dawn Mission to Ceres
Advocates: David Williams, Debra Buczkowski
Dwarf planets are small planetary objects whose geology is unknown. 2015 marks the first exploration of Ceres by NASA’s Dawn mission. This session reports first results on the geology of Ceres, including the role of water in shaping this world.

T174. Impact Cratering on Earth and in the Solar System
Advocates: Christian Koeberl, Jeffrey Plesscia
Data from terrestrial fieldwork, advances in modeling and experimentation, spacecraft data have provided significant new insight into the characteristics of the impact cratering processes. This session will provide an opportunity to share information and insight.
T220. Comparative Approaches to Studying Impact Ejecta Deposits and Volcanic Flows  
**Advocate:** Jacob Bleacher  
Similarities between impact ejecta deposits and volcanic flows are leading to comparable research approaches. Techniques for the study of both deposit types will be compared in this session.

Mineralogy of Diagenesis on Earth and Mars  
**Advocate:** Scott McLennan, M. Darby Dyar, Andrew Knoll  
Session honoring Nick Tosca, winner of the 2015 MSA Award, devoted to recent experimental, theoretical and observational advances in characterizing and interpreting the mineralogical relationships developed during aqueous diagenesis on both Earth and Mars.

Microscopic Impact Records  
**Advocate:** Aaron Cavosie  
Advances in instrumentation allow microstructural and geochemical investigations of impact records at microscopic and smaller scales, providing new insights on impact histories. This session welcomes contributions describing approaches to unraveling small-scale records of impact processes.

Oceans, Fire, and Ice of the Outer Solar System  
**Advocate:** D. Alex Patthoff  
We encourage abstracts relating to surface, structural, and tectonic processes; interior, and thermal evolution of solid bodies of the outer solar system, and planetary analogs. This includes experimental, observational, and theoretical approaches.

Past and Present Biosignature Recognition on Earth and Mars  
**Advocate:** Sally Potter-McIntyre, Charity Phillips-Lander  
Diagnostic biosignatures can be from extant life (e.g., spectral atmospheric signatures) or preserved in the rock record (e.g., stromatolites). This forum will discuss advances in the search for life focusing specifically on Earth and Mars.

When Water Meets Rock: Aqueous Alteration in the Solar System  
**Advocate:** Rebecca Greenberger, John Mustard  
This session brings together mineralogic and geochemical studies of orbital and landed measurements with results from field, laboratory, meteoritical, and modeling investigations that address aqueous processes in surface and subsurface environments throughout solar system history.

Integrating Perspectives on the Creation, Evolution, and Destruction of Continental Crust: From 0 to 4600 Ma  
**Advocates:** Paul Mueller, Robert Stern, David Snyder, M. B. Magnani, M. E. Bickford  
Constraining the extent to which the geochemical, geophysical, and tectonic characteristics of modern arc systems (oceanic and continental) and LIPS (large igneous provinces) can be applied to the Precambrian record (Archean and Proterozoic) of crustal evolution.

Origins and Early Evolution of Life at the Mineral/Water Interface  
**Advocates:** Charlene Estrada, Punam Dalai, Nita Sahai  
This session encourages studies that explore prebiotic organic molecule interactions with minerals that may have influenced the origins of life on early Earth and, potentially, on other terrestrial bodies.
T71. Digital Technology in Real and Virtual Geoscience Experiences (Posters)
Advocates: Declan De Paor, Steven Whitmeyer, Callan Bentley
Digital technology is transforming geoscience practices. We invite poster presentations addressing applications of digital technology to all aspects of geoscience teaching, research, and outreach, with an emphasis on the importance and usefulness of innovations.

T171. Experimental Investigations of Planetary Geologic Processes (Posters)
Advocates: Danielle Wyrick, Paul Byrne
This session solicits abstracts regarding experimental and laboratory analyses of geologic processes and materials under the range of dynamic, kinematic, temperature, pressure, and chemical parameters found throughout the Solar System.

Notes from the 2014 GSA Annual meeting in Vancouver, BC
The 2014 annual GSA meeting (19-22 Oct 2014) was the first to be held in Vancouver, British Columbia. The meeting continues to be a major annual event for the PGD community.

Outgoing PGD chair Devon Burr (UT Knoxville) presenting G. K. Gilbert award plaque to Bill McKinnon (Wash. U. St. Louis) at the 2014 PGD banquet.

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 (see picture on following page). Staffed by PGD officers 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!

Among the meeting highlights was the annual PGD banquet and celebration of William B. McKinnon, the recipient of the 2014 G.K. Gilbert Award, which is our division’s highest honor. Many of Bill’s friends and colleagues shared fond memories (and amusing pictures) to those assembled. Casey Dreier of the Planetary Society also gave a well-received invited talk about the important role of science advocacy.

Casey Dreier (The Planetary Society) speaking at the 2014 PGD banquet.
Grand prize raffle winner **Douglas Sumrail**, son of PGD member Linda Kah (UT Knoxville), holding his piece of Mars! All meteorites were graciously donated by Erik Twelker ([www.meteoritemarket.com](http://www.meteoritemarket.com)).

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**2015 Dwornik Awards: Thank you for judging**

The judging panel at the 46th LPSC had its hands full with another crop of outstanding entries for the 2015 Dwornik Prize — we have received 44 entries for the oral presentations (41 grads, 3 undergrads) and 84 entries for poster presentations (65 grads, 19 undergrads). PGD officers would like to thank all of our members who attended the 45th LPSC and assisted in judging for the 2015 Dwornik awards. It would simply not be possible to judge the student awards without the help of our volunteers. Stay tuned – the winners will be announced soon!

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. Beginning in 2012, the award was open to any student currently enrolled 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 is typically the day after LPSC abstracts are due in early January.

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**Call for Applications & Nominations**

**Student Advisory Member:** The Planetary Geology Division (PGD) of the Geological Society of America is soliciting nominations for the position of Junior Student Advisor to the PGD. 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, 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 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. Please send completed application materials as a single pdf file to PGD 2nd Vice-Chair James Wray ([jwray@gatech.edu](mailto:jwray@gatech.edu)) by **June 1, 2015**.

**Ronald Greeley Award:** 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 Danielle Wyrick (danielle.wyrick@swri.org) prior to June 30, 2015. 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 $2500, 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 due **August 29, 2015**, and must include a CV, research proposal, timeline and budget, and two letters of recommendation (also due August 29th). For more details and to access the online application forms, go to: [www.lpi.usra.edu/science/Kring/Awards/Shoemaker_Award/](http://www.lpi.usra.edu/science/Kring/Awards/Shoemaker_Award/)

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 is available at: [rock.geosociety.org/pgd/Student_Travel_Grant_app.docx](http://rock.geosociety.org/pgd/Student_Travel_Grant_app.docx)

Completed application materials should be submitted as a single PDF file, due
**September 19, 2015**, to PGD 2nd Vice-Chair James Wray (jwray@gatech.edu).

**Dwornik Awards**: This award is open to all students enrolled at a U.S. university. 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: [https://www.gsaafweb.org/donate/](https://www.gsaafweb.org/donate/)

In addition, anyone interested in serving as a judge for the Dwornik competition at next 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!

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**Membership and Finance**

Our membership continues to grow! Our division has increased more than 40% since 2010.

<table>
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<th>Number of division affiliates</th>
<th>Year</th>
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<td>620</td>
<td>Aug 2011</td>
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<td>Aug 2010</td>
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Please remember to renew your membership at GSA annual renewal time and encourage your colleagues to join. Division dues are: student, recent graduate, or K-12 teacher: $5, Professional member or fellow: $10. GSA policy is now that students can join their first division for no cost.

The GSA policy wherein students can join their first division at no cost has resulted in a substantial uptick in membership for 2014. 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 Jan 2015, PGD has an asset balance of $15,272. Our revenue was $4648 consisting of $2167 in division dues and $2517 from the 2014 GSA annual meeting booth (our main fundraising mechanism). Expenses during this period were $5647, including $2000 in student awards, $668 for booth merchandise, $1691 in catering for the annual banquet, $741 for conference service expenses, $330 for banquet honorees, and $216 for award plaques. We can expect some further income from late renewals. This year our outlays exceeded revenue by $963; this difference is attributable to the high conference expenses in Canada (we had also increased our student awards in recognition of higher travel costs for student award winners). The bottom line is we should have sufficient funds in 2015 to support both student awards and the reception at the annual meeting, and expect to return to sounder financial footing by the end of the year.
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:

| Fund                  | Amount $(_____)
|-----------------------|----------------
| The Dwornik Fund      |                |
| The Shoemaker Fund    |                |
| The G. K. Gilbert Fund|                |
| PGD Student Travel Grants |            |

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: http://rock.geosociety.org/pgd/index.htm
2014-2015 Division Officers

(Chair) Buczkowski, Debra L. Research Interests: structural geology, tectonics and geologic mapping of terrestrial planets and asteroids (Mars, Venus, Mercury, Eros, Vesta and Ceres); spectral analysis of Mars. Affiliation: Johns Hopkins University Applied Physics Laboratory, Laurel, MD 20723; debra.buczkowski@jhuapl.edu

(First Vice-Chair) Wyrick, Danielle Y. Research Interests: structural geology, tectonic/volcanic interaction, fluid and gas migration through fractured reservoirs, analog field investigations of Mars. Affiliation: Southwest Research Institute, San Antonio, TX 78247; danielle.wyrick@swri.org

(Second Vice-Chair) Wray, James J. Research Interests: chemical/mineralogical composition, morphology, and stratigraphy of solid surface planetary bodies, focusing on Mars and icy satellites of Jupiter and Saturn. Affiliation: School of Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA 30332; jwray@gatech.edu

(Secretary-Treasurer) Thomson, Bradley J. Research Interests: Mars surface geology, lunar radar, physical properties measurements, regolith evolution, geologic mapping, Venus shield fields. Affiliation: Center for Remote Sensing, Boston University, Boston, MA 02215; bjt@bu.edu

(Past Chair) Burr, Devon M. Research interests: Planetary geomorphology, specifically flood, fluvial, aeolian, and periglacial processes. Affiliation: Department of Earth and Planetary Sciences, University of Tennessee, Knoxville, TN 37996; dburr1@utk.edu

(Student Advisory Member) Susorney, Hannah C. M. Research interests: Impact cratering, surface roughness. Affiliation: Earth and Planetary Science, Johns Hopkins University, Baltimore, MD, 21218, email: hsusorn1@jhu.edu