

MINUTES OF THE APRIL 29, 2013, MEETING OF THE BOARD OF REGENTS

ATTENDANCE

This scheduled meeting of the Board of Regents was held on Monday, April 29, 2013. The Board conducted morning, afternoon, and executive sessions in the Regents' Room in the Smithsonian Castle Building. Board Chair France Córdova called the meeting to order at 8:30 a.m. Also present were:

The Chief Justice ¹	Shirley Ann Jackson	John W. McCarter Jr.
Barbara Barrett	Sam Johnson	David M. Rubenstein
Stephen M. Case	Robert P. Kogod	Roger W. Sant
Tom Cole	Patrick J. Leahy	Patricia Q. Stonesifer

Sakurako Fisher, Smithsonian National Board Chair
David Silfen, Investment Committee Chair

Vice President Joseph R. Biden Jr., Senator Thad Cochran, Senator Jack Reed, and Representative Xavier Becerra were unable to attend the meeting.

Also present were:

G. Wayne Clough, Secretary	Nell Payne, Director of Government Relations
Patricia L. Bartlett, Chief of Staff to the Secretary	Eva J. Pell, Under Secretary for Science
Claudine K. Brown, Assistant Secretary for Education and Access	Jeffrey P. Minear, Counselor to the Chief Justice
Amy Chen, Chief Investment Officer	Danielle Borrin, Assistant to the Vice President
Virginia B. Clark, Director of Advancement and Philanthropic Giving	Tim Wolverton, Assistant to Senator Cochran
Scott S. Dahl, Inspector General	Kevin McDonald, Assistant to Senator Leahy
Barbara Feininger, Office of the Regents Senior Writer-Editor (recorder)	Moirá Lenehan-Razzuri, Assistant to Senator Reed
Albert Horvath, Under Secretary for Finance and Administration/Chief Financial Officer	Sean Murphy, Assistant to Congressman Cole
Richard Kurin, Under Secretary for History, Art, and Culture	David Heil, Assistant to Congressman Johnson
John K. Lapiana, Chief of Staff to the Regents	Jefferson Hall, Staff Scientist, Smithsonian Tropical Research Institute ²
Judith Leonard, General Counsel	Jennifer Jones, Armed Forces History Division Chair, National Museum of American History ²
Evelyn S. Lieberman, Director of Communications and External Affairs	Nancy Knowlton, Sant Chair in Marine Science, National Museum of Natural History ²
Christopher Liedel, President of Smithsonian Enterprises	Steve Monfort, Director of the Smithsonian Conservation Biology Institute ²
	Dennis Whigham, Senior Botanist, Smithsonian Environmental Research Center ²

¹ The Chancellor, Chief Justice John G. Roberts, Jr., participated in the afternoon session.

² Dr. Hall, Ms. Jones, Dr. Knowlton, Dr. Monfort, and Dr. Whigham participated in special presentations to the Board.

MORNING SESSION

EXECUTIVE SESSION

The meeting of the Board of Regents began with an executive session, which was called to order by Board Chair France Córdova. The executive session adjourned at about 9:10 a.m.

REPORT OF THE BOARD AND EXECUTIVE COMMITTEE CHAIR

Introductory Remarks

Board Chair France Córdova call the open session to order at 9:22 a.m. She thanked staff for their contributions towards the previous day's donor recognition dinner and events. Dr. Córdova then welcomed Congressional Regent Tom Cole (R-OK) to his first Board meeting. Representative Cole, she said, is a member of the Chickasaw tribe, sits on the Interior Appropriations Subcommittee, and cochairs the Congressional Native American Caucus. Commenting that Representative Cole holds a Ph.D. in history from the University of Oklahoma, she noted that he also was a Thomas Watson Fellow and a Fulbright Fellow—honors named after two former Smithsonian Regents. Representative Cole expressed his appreciation for the privilege of joining the Board, and said that he looked forward to contributing to its efforts in support of the Smithsonian.

Dr. Córdova acknowledged Barbara Barrett for her efforts to set up a photo shoot with *Fortune* magazine and those Regents who were able to participate. She thanked Governance and Nominating Committee Chair Roger Sant and the committee for leading the Regents' response to the Inspector General's audit of senior executive travel. She reported that that committee and the Compensation and Human Resources Committee will together implement the policy changes adopted in the Regents' report.

Dr. Córdova then reported on several new Smithsonian exhibitions that she had visited over the weekend, including the National Air and Space Museum's *Time and Navigation: Getting from Here to There*, the National Museum of African Art's (NMAfA) *Earth Matters: Land as Material and Metaphor in the Arts of Africa*, the National Museum of the American Indian's (NMAI) *Cerámica de los Ancestros: Central America's Past Revealed*, and the Arthur M. Sackler Gallery's *The Cyrus Cylinder and Persia: A New Beginning*. She encouraged Board members to tour the exhibitions. Dr. Córdova, as well as Patricia Stonesifer, also visited the Smithsonian Craft Show run by the Smithsonian's Women's Committee. The juried show, said Dr. Córdova, is recognized as one of the most high-quality crafts show in the United States. The Secretary interviewed this year's honorary chair, Martha Stewart.

The Giant Magellan Telescope

The Carnegie Institution for Science invited Dr. Córdova to visit the site of the Giant Magellan Telescope (GMT) in late March 2013. Located in Las Campanas, Chile, the project is the collaborative effort of approximately 10 organizations and governments; it is expected to cost almost \$1 billion when completed. Dr. Córdova

indicated that the first light would occur in 2019, and reported that the current estimate of the Smithsonian's financial commitment totals approximately \$90 million in current dollars. Other sponsored guests included Ms. Barrett, Smithsonian Astrophysical Observatory (SAO) Director Charles Alcock, representatives of other current and prospective project partners.

Dr. Córdova reported on the scientific goals of the project and the anticipated return on the Smithsonian's investment. The 25-meter telescope's light-gathering power will be 100 times larger than that of the Hubble Space Telescope and its resolution will be 10 times sharper than that of the Hubble. It will help scientists probe distant events in the early universe to collect information about how, among other things, the Earth's galaxy, star, and planet emerged. The unique science that the GMT could yield includes information about the chemical evolution of the Universe, the detection of Earth-sized—and possibly life-bearing—planets orbiting other stars, and a better understanding of the fundamental physics of dark matter and dark energy.

The importance of the observatory's location was explained by Dr. Córdova. Located in the Southern Hemisphere, where the center of the Milky Way Galaxy is best observed, Chile is heavily invested in astronomy's global infrastructure. The country hosts a dozen outstanding observatory sites in the northern third of the country, where near-perfect conditions for observing the night sky exist. Dr. Córdova presented images of the site, an artist's conception of the final telescope, and the fabrication of the telescope's primary mirror, which is composed of seven mirrors designed by Roger Angel. [Dr. Angel recently was awarded the Kavli Foundation Prize—the highest award in the world to astronomers—for the mirrors' design and fabrication.]

The project, said Dr. Córdova, is one of the most ambitious ever undertaken by mankind, and fundraising will be challenging. The Smithsonian's participation, however, will be rewarded with scientific breakthroughs, and will inspire young people to better understand the evolution of the universe and mankind's place in it. Ms. Barrett concurred that the Smithsonian's participation in the GMT will allow it to participate in the most sophisticated direction in space exploration undertaken in generations. The GMT program, she said, will support the next step in human evolution by allowing mankind to understand its place in the universe.

Ms. Stonesifer, who previously visited the Las Campanas Observatory, commented on the essential but challenging nature of fundraising for the GMT. The collaborative effort requires more than one donor, and different fundraising opportunities are being explored.

Actions Between Meetings

Dr. Córdova next updated the Board on actions taken by the Executive Committee on behalf of the Board since its January 2013 meeting. Approved were two gifts on the recommendation of the Advancement Committee; the submission of the Smithsonian's fiscal year budget by the President; the establishment of an ad hoc campus master planning committee chaired by Robert Kogod; and a lease extension for office space at L'Enfant Plaza in Washington, D.C.

Naming in Honor of Senator Daniel Inouye

Dr. Córdova reminded the Board of its recently approved motion expressing appreciation for the contributions of the late Senator Daniel Inouye. The Board of Trustees and staff of

NMAI subsequently asked that the Regents approve naming the museum's Director's Terrace in honor of Senator Inouye. If approved, said Dr. Córdova, NMAI Director Kevin Gover would announce the naming at a memorial ceremony scheduled for April 30, 2013. The motion was approved.

See attached Action 2013.04.02 (Minutes of the Board of Regents, Appendix A).

**Minutes of the January 28,
2013, Board Meeting**

The minutes of the January 28, 2013, Board meeting were presented for approval. The minutes were approved without comment or revision.

See attached Action 2013.04.03 (Minutes of the Board of Regents, Appendix A).

Dr. Córdova then directed the Regents' attention to a revised meeting agenda, copies of which were provided for the Board. The order of committee reports was modified to accommodate an unanticipated conflict in a committee chair's schedule.

REPORT OF THE SECRETARY

Awards and Recognitions

The Secretary announced that, in addition to David Rubenstein, three Smithsonian staff were recently elected to the American Academy of Arts and Sciences: SAO's David Latham; the National Museum of Natural History's (NMNH) Nancy Knowlton, who holds the Sant Ocean Chair; and the Smithsonian Tropical Research Institute's (STRI) Richard Cooke. He congratulated Mr. Rubenstein for also receiving the Leonore and Walter Annenberg Award for Diplomacy through the Arts.

SAO's Irwin Shapiro was awarded the 2013 Einstein Award from The American Physical Society in recognition of outstanding accomplishments in the field of gravitational physics. The Smithsonian Channel, said the Secretary, was awarded a Peabody Award and Folkways recordings received two Grammy Awards.

Sequestration Update

On April 16, 2013, the Secretary testified before House Committee on Oversight and Government Reform on the Smithsonian's response to the proposed sequestration. He praised the preparations of Director of Government Relations Nell Payne and staff for the three-hour hearing, which also included the directors of two other Federal agencies. The hearing focused on each agency's proposed response to the sequestration. The Secretary said that he believes that the Smithsonian's plan was well-received as it demonstrates that the Institution can deal with the sequestration in the short term. He said, however, that a long-term sequestration will be more challenging.

Sequestration resulted in a \$42 million cut to the Smithsonian's fiscal year 2013 Federal budget. In response, the Smithsonian has made temporary cost-saving measures, including the institution of a hiring freeze; restrictions on staff travel; funding cuts for facilities maintenance; reduced investments for research and education; and reduced funds for contractors. In addition, some museum galleries will be temporarily closed from May 1 to September 30, 2013. Senior management,

said the Secretary, has worked hard to plan for and minimize the impact of sequestration.

Should sequestration become permanent, the Smithsonian could lose \$65 million in Federal appropriations annually. Under Secretary for Finance and Administration/Chief Financial Officer Al Horvath and his staff are developing response scenarios that will support a leadership retreat in July 2013, when a plan will be established to deal with the possibility of permanent reductions in Federal funding.

Fiscal Year 2014 Federal Budget Request

The Secretary then commented on the President's fiscal year 2014 budget request for the Smithsonian, which he characterized as optimistic. The \$869.2 million request includes \$55 million for construction costs for National Museum of African American History and Culture (NMAAHC), which would almost complete the Federal commitment to the project, as well as \$21 million to expand NMAAHC staffing. Funding for program increases includes \$2.4 million for the collections care initiative and \$2.3 million for the digitization initiative. Also included is \$25 million for STEM education, which, to date, the Smithsonian has pursued through collaborative efforts with other Federal agencies. The President's budget, said the Secretary, recognizes the important contributions the Smithsonian has made to STEM education, as well as other significant work the Smithsonian is advancing.

Trust Budget Update

Secretary Clough reported that the state of the Trust budget is good. Smithsonian Enterprises (SE) year-to-date revenue is ahead of comparable figures from fiscal year 2012. SE President Chris Liedel, said the Secretary, is generating ideas to continue boosting SE revenues. He thanked Investment Committee Chair David Silfen, the committee, and Chief Investment Officer Amy Chen for their effective management of the Endowment.

Sponsored research is ahead of last year's performance. Fundraising for the national campaign has achieved 34 percent of its fiscal year 2013 "stretch" goal, and 45 percent of the overall working goal for the campaign. Fundraising for the NMAAHC is up.

Digital Activities and Partnerships

The Secretary reported that the Smithsonian's digital activities are strong, and said that a full report would be provided to the Board at its June 2013 meeting. Access continues to expand and be consumed; web visitation is significantly higher than figures from the prior year.

The Smithsonian signed a Memorandum of Understanding with Internet2, and is the only organization of its type to have a channel on the superfast network. The network supports increased digital access to approximately 24 million students in some 220 U.S. colleges and universities, as well as members in partner corporations, government agencies, nonprofit groups, and research and education networks in more than 50 countries, including those in Asia and Europe.

The Secretary reported on a new partnership with the Digital Public Library of America (DPLA), which will provide links to the Smithsonian's cultural and scientific content. The DPLA pilot project offers a virtual library by combining and centralizing links to collections of participating cultural institutions. The Secretary recognized the

contributions of Smithsonian Institution Libraries Director Nancy Gwinn in this effort.

SE's agreement with Gale Cengage has resulted in the archival preparation of digitized material from *Smithsonian* and *Air & Space* magazines. The searchable content will be available for purchase in May 2013.

Talks continue with Oak Ridge National Laboratory and the Institute for Computing in Humanities, Arts, and Social Science at the University of Illinois at Urbana-Champaign. A substantive partnership will be developed to analyze the Smithsonian's efforts to link its archival materials.

The Smithsonian American Art Museum, in collaboration with the University of Southern California, is participating in a consortium to develop a digital, virtual museum. Linked to Cloud technology, the open data system will support the seamless search of content from stand-alone websites.

The Smithsonian was selected to participate in the Presidential Innovation Fellows program. Two private-sector technology professionals will develop a pan-institutional crowdsourcing platform for the Institution. The Secretary thanked ad hoc external advisory committee members Steve Case and U.S. Chief Information Officer Steve VanRoekel for their contributions towards this effort, as well as Smithsonian National Board member Judy Huret and her husband, Bob Huret. Support from the Hurets will fund the positions.

Education

Four units are bridging the gap between formal and informal education through digital badging. The successful pilot program, which has enrolled 2,300 classrooms, offers 127 badges. Over 1,300 badges have been awarded to date, and 20 additional units have expressed interest in pursuing badging initiatives. The Secretary also reported that SE is introducing an "augmented reality" mobile app.

The reach of Smithsonian education also has been expanded through digitization. Secretary Clough noted, however, that the basis of education remains grounded in the student-teacher interaction. The Smithsonian's most successful efforts in that area are reflected in its selection for a \$25 million i3 grant from the U.S. Department of Education, along with \$7 million in matching funds. Under the leadership of Assistant Secretary for Education and Access Claudine K. Brown, a Smithsonian Science Education Center (SSEC) educational model reached 75,000 students, most of whom live below the Federal poverty line, over a five-year period. The Secretary reported that SSEC's Leadership and Assistance for Science Education Reform (LASER) model was recently assessed as one of the highest-ranked programs in the initiative; it is now eligible for the next level of grants, which total up to \$50 million.

Grand Challenge Consortia

All four Grand Challenge Consortia, said the Secretary, continue to make strong progress. He cited "Earth Matters" as an example of a successful Consortia collaboration. "Earth Matters" partners include NMAfA, Smithsonian Gardens, NMNH, the National Museum of American History (NMAH), and the Smithsonian Environmental Research Center (SERC).

Personnel

The Secretary commented on successful conclusion of recent director searches.

Recent appointments include Kim Sajet (director of the National Portrait Gallery), Michael Mason (director of the Center for Folklife and Cultural Heritage), Kate Haw (director of the Archives of American Art), and Molly Fannon (director of the Office of International Relations). He thanked Under Secretary Kurin for his leadership of three of the search efforts.

Construction Updates

Secretary Clough briefly commented on several major construction projects. The construction of the Arts and Industries Building (AIB) shell is 92 percent complete; window installation is ongoing. Interior upgrades will support the interim use of the building, which will begin in 2014.

The Secretary reported that unexpected site conditions have challenged the construction of NMAAHC. He commented on the NMAAHC project team's efforts to address the problems, and said that the team continues to work towards opening the new museum in November 2015.

Progress continues on the development of a master plan for the Smithsonian buildings on the south side of the National Mall. The plan will connect—both above and below ground—the Hirshhorn Museum and Sculpture Garden, AIB, the Smithsonian Castle, the S. Dillon Ripley Center, NMAfA, the Arthur M. Sackler Gallery, and the Freer Gallery of Art.

Concluding Remarks

Dr. Córdova thanked the Secretary for his report. She thanked Secretary Clough for his leadership, which she characterized as “truly outstanding.” The Board concurred with an extended round of applause.

REPORT OF THE INVESTMENT COMMITTEE

Investment Committee Chair David Silfen reviewed the performance of the Endowment with the Board. Noting that the Endowment has benefited from careful management over the past several years, Mr. Silfen said its performance over calendar year 2012 was especially strong and significantly above benchmark. As of March 31, 2013, assets stand at a record high of \$1,149.2 million. With regard to final calendar year 2012 results, the Endowment ranked in the first quartile in the Cambridge Associates peer universe of endowments and foundations. Mr. Silfen also reported that asset allocations are essentially in line with policy targets, and liquidity continues to be carefully monitored.

The Endowment has outperformed the S&P 500 and its volatility has been substantially lower since the 2005 establishment of the Investment Committee. Mr. Silfen commented on the growth of the Endowment payout since 2004. The committee, he said, continues to closely monitor and discuss asset allocation with regard to the Endowment's ability to achieve its long-term objective to return 5.5 percent plus inflation.

Significant portfolio changes that occurred during 2012 were reviewed. Fifteen new investments were made in calendar year 2012, and six manager relationships were modified. With regard to calendar year 2013, the emerging markets portfolio will

continue to be restructured, private equity and venture capital benchmarks will be reviewed and potentially recalibrated, and private real assets will continue to be moved closer to the upper range of the policy portfolio.

With regard to operations, Mr. Silfen congratulated the Office of Investments (OI) for the successful completion of the fiscal year 2012 audit. The audit, which was completed one month ahead of the prior year, did not result in any material findings or reportable conditions in the Smithsonian's management of investment assets. He reported that OI staff was in the final stages of appointing a new investment custodian following a detailed search. Also, OI will again sponsor an internship program this summer to support ongoing research and short-term projects.

Mr. Silfen expressed his appreciation for the contributions of the Investment Committee and OI staff. Dr. Córdova thanked Mr. Silfen for his commitment and leadership over the past eight years, a sentiment that Mr. Sant strongly endorsed. Mr. Sant also thanked Chief Investment Officer Amy Chen and her staff for their contributions to the successful management of the Endowment.

The Board then discussed the management of endowment contributions, both pledged and received, during the capital campaign. Mr. Horvath noted that received funds that are earmarked for capital projects are held temporarily in restricted accounts, not the Endowment. Ms. Stonesifer asked about the Smithsonian's investment policy for short-term investments. Ms. Chen explained that funds are conservatively managed and invested in short-term treasuries and agencies. The account is under the purview of the Finance Committee. The portfolio, added Mr. Silfen, is very liquid.

REPORT OF THE ADVANCEMENT COMMITTEE

Update on the National Campaign

Advancement Committee member Barbara Barrett provided the Committee's report. As of March 31, 2013, reported Ms. Barrett, 34 percent of the fiscal year 2013 fundraising goal has been raised. Fundraising for the total working campaign goal is ahead of schedule, standing at 45 percent.

Ms. Barrett reported on fundraising for the NMAAHC. Over \$101 million has been raised to date towards the museum's \$250 million private fundraising goal. It is anticipated that an additional \$30 million will be secured by the end of the fiscal year. The Advancement Committee, said Ms. Barrett, is pleased with the work of NMAAHC Director Lonnie Bunch and the NMAAHC Council.

During its last meeting, said Ms. Barrett, the Advancement Committee reviewed and approved key milestones that must be reached prior to the October 2014 public kickoff of the national campaign. The milestones include raising 60 percent of the total campaign goal, as well as securing contributions from all campaign steering committee members and the majority of Smithsonian advisory board members. The Advancement Committee, she said, will work with the Executive Committee should the milestones necessitate modifications to the campaign reporting schedule. Ms.

Barrett expressed the campaign steering committee's appreciation for the outreach efforts that have been made on behalf of the campaign.

Gift Actions

Ms. Barrett presented four proposed actions for the Board's approval: three gift agreements and one request for the establishment of a quasi-endowment. Each, she said, reflects campaign priorities and conforms with Smithsonian gift policies and procedures. The motions were approved en banc.

See attached Actions 2013.04.06–2013.04.09 (Minutes of the Board of Regents, Appendix A).

REPORT OF THE AUDIT AND REVIEW COMMITTEE

Fiscal Year 2012 Financial Statement and Management Letter

Audit and Review Committee Chair John McCarter reported that the fiscal year 2012 financial audit conducted by KPMG, the Smithsonian's external auditor, resulted in an unqualified opinion. No material weaknesses or significant deficiencies were identified. Some areas for improvement were recommended in the audit management letter, and action plans have been created by management to resolve the identified issues. Mr. McCarter also reported on an internal control issue experienced by KPMG, noting that it did not impact KPMG's work for the Smithsonian.

Inspector General's Update

Mr. McCarter reported that Inspector General Scott Dahl reported on the areas identified for review in the Office of the Inspector General's (OIG) fiscal year 2014 audit. The committee, he noted, agrees with the annual audit plan, which will include reviews of construction management, collections stewardship, financial management, and cash management. Mr. Dahl also reported to the committee on the investigation of stolen parking revenues at the Udvar-Hazy Center and updated the Board on that matter. He indicated that a former contract parking lot supervisor pled guilty to conspiring to steal more than \$1.3 million from the Smithsonian, and a defendant who previously pled guilty was sentenced to 27 months imprisonment and ordered to pay restitution. Also, the Smithsonian is working with the U.S. Department of Justice to pursue civil recovery against PMI, the former parking contractor, and to retrieve stolen and forfeited proceeds. The OIG, said Mr. Dahl, is working with Smithsonian Enterprises (SE) staff and the Office of the Under Secretary for Finance and Administration to identify areas of vulnerability found during the investigation of parking cash-handling operations.

Dr. Córdova commented on the quantity of stolen monies and the apparent lack of operations oversight. Mr. Dahl said that his office is working with Under Secretary Al Horvath and his staff to review how revenues from approximately 95,000 cars were diverted, and to prevent such an occurrence in the future. Mr. McCarter said the investigation identified the scope of the oversight failure; it also made clear that the sole responsibility for these business operations should not remain under the control of museum directors, whose primary responsibility is running museums. Going forward, parking operations at Udvar-Hazy will be overseen by SE.

Mr. Liedel said that OIG and finance staff supported SE efforts to assume management of the parking operations on April 14, 2013. Tracking data is being

collected to support transparent business operations, as well as to provide information for control improvements.

Mr. Horvath said that accounting controls for the prior operation were strong, given what was understood about the process, but that the physical controls were compromised. He said that SE's management has instilled confidence in the operation, and that other enhancements to cash handling procedures have put the Smithsonian on track to implement the recommendations from Booz Allen Hamilton's (BAH) review of the issue. Mr. Horvath reported that new audit procedures have been implemented with regard to third-party contractors, and that all contractor relationships will be audited by the end of the fiscal year. He stated that he agrees with BAH's recommendation that the Smithsonian, wherever possible, standardize and consolidate its cash management operations. Over the next nine months, said Mr. Horvath, the facility will look to move away from the physical management of funds to electronic payments.

Ms. Stonesifer noted that, because of revenue-sharing concerns between some museums and SE, several museum directors maintain responsibility for certain cash handling procedures. She suggested that, in light of the Udvar-Hazy incident, the Audit and Review Committee might consider reviewing whether this practice should continue.

Mr. McCarter reported that the committee also discussed other OIG reports and work plans, made minor modifications to the Committee's charter, and reviewed its calendar to ensure that the committee is meeting its responsibilities.

REPORT OF THE FACILITIES COMMITTEE

Committee Update

Facilities Committee Chair Robert Kogod reported that the committee met in February 2013, at which time it reviewed the Smithsonian's facilities capital and maintenance requirements and was updated on specific initiatives and major construction projects. As per national industry standards, said Mr. Kogod, the size of the Smithsonian's facilities portfolio annually requires approximately \$150 million to address facilities capital requirements and \$100 million for facilities maintenance. These costs, said Mr. Kogod, are never fully funded in the Smithsonian's Federal budget, and he commended the efforts of the Office of Facilities Engineering and Operations (OFEO) to carefully monitor the condition of Smithsonian facilities to avert any crises from system failures. He noted that the facilities cannot continue to operate under these conditions, and said that the Smithsonian must make every effort to get increased funding for its facilities capital and maintenance requirements.

In April 2013, the Regents' ad hoc campus master planning committee held its first organizational meeting with engineering and architectural firm BIG. The committee discussed the goals, process, and timing of the campus master planning initiative, which will primarily address the underground facilities on the south side of the Mall campus. The Board will continue to be apprised on the initiative's progress.

The Secretary, said Mr. Kogod, also reported on specific projects, such as the AIB shell

revitalization project and the renovation of Cooper-Hewitt, National Design Museum. The projects are progressing as planned, and are largely within budget and on schedule. Mr. Kogod said that the committee will closely examine progress on the NMAAHC construction project over the coming months and will provide a more comprehensive report on that initiative to the Board at its October 2013 meeting.

Discussion of Facilities Maintenance Backlog

For the benefit of newer Regents, Ms. Stonesifer asked Mr. Kogod to explain the state of the Smithsonian's facilities maintenance backlog eight years ago, and the efforts that have been made since that time to address that issue. She said that the Smithsonian has made significant progress in turning the backlog around, and noted the contributions of Mr. Kogod, former Acting Secretary Cristián Samper, and Secretary Clough to that effort. She expressed concern, however, that current Federal funding shortfalls might put the Smithsonian again on a path towards a backlog of deferred maintenance problems. Mr. Kogod concurred with her assessment.

Mr. Kogod explained that, historically, funding for the Smithsonian's facilities capital and maintenance requirements had not received sufficient attention. In response, the Facilities Committee worked with OFEO to identify the current and long-term needs of the Smithsonian's facilities. Mr. Kogod stated that significant progress has been made to address the backlog but emphasized that more work remains to be done.

The Secretary explained that the construction of new facilities mandated by Congress compete with other Smithsonian facilities for funding. He said that the sequestration hearing made clear that deferred maintenance is a problem across the Federal government. Mr. Kogod said that the Smithsonian is not keeping up with its annual facilities requirements, and that the requirements will continue to grow.

NEW COLLECTIONS HIGHLIGHTS

Under Secretary Richard Kurin updated the Board on the status of undeveloped film in a camera that had captured important images of the iceberg that sank the *Titanic*, as well as photographs of some of the survivors. He reminded that Board that it had viewed the Kodak Brownie camera of teenager Bernice Palmer at its April 2012 meeting. [Miss Palmer was a passenger on the *Carpathia*, the ship that rescued the few survivors of the disaster.] Unfortunately, the development of the film did not result in any images.

Dr. Kurin also commented on gifts to the national collections from two of the guests honored at the prior evening's donor recognition dinner. Dr. T.B. Boyd III, president and chief executive officer of R.H. Boyd Publishing Corporation, an African American publishing company, donated important collections of African American church publications, such as hymnals, to the NMAAHC. NMAH Board Chair John Rogers, who had served as an aide to President Ronald Reagan, donated pieces of the Berlin Wall that he chiseled from the wall when it was taken down in 1989.

REPORT OF THE SMITHSONIAN NATIONAL BOARD

Smithsonian National Board (SNB, or National Board) Chair Sako Fisher reported on the recent meeting of the SNG. She reminded the Regents that the mission of the SNB is to be advisors, ambassadors, and fundraisers for the Smithsonian. She added that the National Board is the largest “boots on the ground” volunteer aspect of the national campaign.

SNB meetings focus on the Smithsonian’s “pillars of learning”—the four Grand Challenges. During this meeting, said Ms. Fisher, SNB members considered world cultures through, among other things, programs at the Freer and Sackler Galleries and a luncheon presentation on Cooper-Hewitt’s initiative “Design for the Other 90%.”

The presentations, she said, made clear why it is important to invest in the Smithsonian, and how donors can make a difference. Ms. Fisher noted that approximately 10 percent of the donors honored the previous evening are affiliated with the SNB. Ms. Fisher said that plans are under way to introduce SNB members to the staff and work that have benefited from donor support.

The fall 2013 SNB meeting will likely focus on biodiversity. The winter 2014 meeting, which will be held in Hawaii, will consider all four Grand Challenges. It is anticipated that the focus of the spring 2014 meeting will be the Grand Challenge “Unlocking the Mysteries of the Universe.” The fall 2014 meeting will address the national campaign kickoff. Ms. Fisher said that the winter 2015 meeting will likely be held in New York City, shortly after the reopening of Cooper-Hewitt.

Ms. Fisher welcomed the Regents to participate in SNB meetings. Staff will provide SNB meeting schedules and agendas to the Regents.

FINANCIAL DASHBOARD

Under Secretary for Finance and Administration/Chief Financial Officer Albert Horvath reported that the first six months of fiscal year 2013 were dominated by planning for sequestration, which was put into effect on March 1, 2013. The sequester resulted in a \$42 million reduction in fiscal year 2013 Federal funding for the Smithsonian, and a total Federal appropriation of \$775 million. There is \$7 million in new funding in the fiscal year 2013 Federal budget to support NMAAHC staffing increases (\$5 million) and repairs to facilities damaged by Superstorm Sandy (\$2 million).

Mr. Horvath discussed key components of the Smithsonian’s sequestration action plan. The implemented strategy, he said, was temporary and intended to be limited to fiscal year 2013. In some cases, mission-centric activities were protected by increased funding reductions in other units, such as OFEO, and pooled funds.

During the sequestration plan’s development, said Mr. Horvath, a “ground-up” analysis process was created that supports planning for the possibility of structural budget reductions for fiscal year 2014 and beyond. All of the major operating units

have developed plans to address the possibility of 7 percent reductions in Federal funding. The themes derived from these plans will support the July 2013 retreat's "top-down" discussions about possible long-term Federal budget reductions.

With regard to non-Federal funding, Mr. Horvath reported that SE is on track to meet its net revenue target for the fiscal year; it also is ahead of last year's performance through the first six months of the year. The fiscal year goal for sponsored research awards is ambitious. Awards to date are behind budget, although ahead of last year's revenues. Mr. Horvath commented on the secondary effect of sequestration on the Federal sponsors that seed these awards.

The Smithsonian's incurred expenses, said Mr. Horvath, remain in line with its revenues. Federally funded budgets have been modified in response to the sequestration. Trust budgets also have been modified. With regard to the Smithsonian's major facilities capital projects, Mr. Horvath noted that the Smithsonian has yet to receive Federal funding for repairs to address damage from the 2011 earthquake. He said that funding for other basic capital projects will be "crowded out" if funding for earthquake repairs is not received by fiscal year 2015.

Ms. Stonesifer asked the Secretary about the pipeline of pending gifts. Secretary Clough agreed that the fiscal year 2013 fundraising goal is a stretch goal. Ms. Clark said that the primary focus is on the campaign launch goal, adding that she is confident that the launch fundraising goal will be met. The Secretary noted that about 40 new development staff have been added across Smithsonian museums, units, and the central Office of Advancement. He said that the experience of the new employees, as well as the implementation of new operational procedures, will positively impact fiscal year 2014 fundraising efforts.

REPORT OF THE FINANCE COMMITTEE

Fiscal Year 2014 Endowment Payout

Finance Committee Chair David Rubenstein reported that the committee met on April 24, 2013, and discussed the sequestration situation and the fiscal years 2013 and 2014 Federal budgets. Two other issues were reviewed for presentation to the Board: the fiscal year 2014 Endowment payout and the Smithsonian's long-term debt.

The Smithsonian's current policy is to pay out each year 5 percent of the five-year rolling average market value of the Endowment to support the Smithsonian's programs and activities, as well as draw up to 1 percent from certain endowments to support national campaign costs. The Finance Committee agreed to recommend that the Board approve the payout formula.

Dr. Córdova, a member of the committee, noted that the committee recognizes concerns previously raised by Mr. Sant about the sustainability of the payout policy in the current economic climate. She said that the committee is cautious in its support for this year's recommendation, and will continue to monitor the sustainability of the payout policy.

The Regents discussed the increased use of Central Trust funds for staff expenses.

Ms. Stonesifer said that it is important to recognize that the efforts of Office of Advancement staff, who are paid by Endowment funds, have resulted in increased non-Endowment funding for Smithsonian programs and activities. Mr. Horvath said that, in the short term, it would be difficult for the Central Trust to absorb a reduction in payout funds. Going forward, however, staff is reviewing how the Endowment payout interacts with other Smithsonian resources. Fundraising, he said, would be impacted.

Mr. Rubenstein then presented the committee's recommendation that the Board approve the proposed payout from the Endowment for fiscal year 2014. The motion was approved.

See attached Action 2013.04.04 (Minutes of the Board of Regents, Appendix A).

New Debt

Mr. Rubenstein then discussed the committee's review of the Smithsonian's existing long-term debt and a proposal to consider the issuance of new debt to finance Trust-funded capital projects. He explained that the Institution currently has \$104 million of tax-exempt debt outstanding, including \$26.5 million for the construction of the NMNH Discovery Center and \$77.5 million for the construction of the Udvar-Hazy Center.

The Smithsonian, he said, has several planned or in-progress capital projects, such as the NMAAHC construction and the AIB renovation, that are or will be funded in part by Trust revenues. Using NMAAHC as an example, Mr. Rubenstein explained that management has requested authority to explore alternative funding to ensure that, should sufficient funding not be available to address the project's immediate cash requirements, the new museum will open as scheduled in 2015.

He then presented the committee's recommendation that the Board approve a motion to authorize the Secretary to engage with investment advisors and rating agencies in an effort to analyze financing needs for Trust-funded capital projects and to research potential debt structures should it be determined that a borrowing is necessary. The Secretary, he said, would then present any proposed debt issuance to the Committee for its review and subsequent recommendation to the Board for approval.

The Board agreed to authorize the Secretary to research potential debt issuance for the Finance Committee's review. The Board also agreed that the undertaking of any debt issuance require the approval of the Board of Regents.

See attached Action 2013.04.05 (Minutes of the Board of Regents, Appendix A).

REPORT OF THE OFFICE OF GOVERNMENT RELATIONS

Director of Government Relations Nell Payne updated the Board on the outreach activities of the Office of Government Relations. The support of Representative Johnson resulted in the exhibition of 150 NMAH artifacts in the Rayburn House Office Building foyer. A dozen NMAH curators participated in the one-day event, which was

attended by 600 congressional staff and several members of Congress. Strong attendance, said Ms. Payne, was encouraged in part by a “Dear Colleague” letter signed by the six congressional Regents.

A tour of the Museum Support Center was arranged for 25 Congressional spouses. The Smithsonian also hosted a successful event with Faith in Politics, a non-partisan group, that attracted 10 members of Congress to a NMAH event that included a dinner and tour of the *Changing Washington* exhibit. Future outreach activities include a Congressional staff picnic at the 2013 Folklife Festival; a concert by Hungarian Folklife participants on the steps of the Capitol; and a Congressional Night on July 24, 2013, which will again be sponsored by Nissan. Attendance continues to grow at the Congressional Night, which hopefully will become an annual event.

The sequester hearing, said Ms. Payne, went well for the Smithsonian. The panel was especially impressed by the Smithsonian’s preparations for a possible sequester.

REPORT OF THE GENERAL COUNSEL

General Counsel Judith Leonard reported on the 41st annual Legal Issues in Museum Administration Conference, which is cosponsored by the Smithsonian and organized by the Office of General Counsel (OGC). The well-respected conference attracts lawyers, museum directors, registrars, and other museum professionals, as well as lawyers from other non-profit organizations. Over 180 participants attended the 2013 conference, including representatives from 60 museums, offices of the state attorney generals, the Department of the Interior, the Library of Congress, and the National Endowment for the Arts. Many others participated via webcast.

LUNCHEON PRESENTATION: THE NATIONAL MUSEUM OF AMERICAN HISTORY

Introduction

Under Secretary Kurin introduced luncheon speaker NMAH Director John Gray, who joined the museum in July 2012 after retiring from the Autry National Center of the American West. Mr. Gray began his career in the banking industry, after which he served in the Small Business Administration in Washington, D.C. He then became the first CEO of the Gene Autry Museum in Los Angeles. There he transformed the museum by consolidating three cultural organizations in Los Angeles and Denver, including the Southwest Museum of the American Indian, into the Autry National Center of the American West. The consolidation, said Dr. Kurin, deftly combined the missions and resources of organizations dedicated to different aspects of Western history and culture.

The National Museum of American History

Mr. Gray thanked the Board for the opportunity to discuss the museum’s mission, activities, and vision, including its recently completed strategic plan. He spoke of the scale and complexity of the NMAH, which is visited by 5 million people each year. He noted the ability of museums to change lives, and said that the new strategic plan will help make the NMAH “worthy of that challenge.” Mr. Gray discussed the position of

the NMAH in the context of American and European museums, explored how the museum can be national in both its representation and impact, and spoke of the planned renovation and reinstallation of galleries and equipment in the museum's west wing.

Mr. Gray spoke of the history and legacy of great European museums, and noted that the Smithsonian's first collections were dedicated to anthropology and natural history. The Museum of History and Technology, which opened in 1964, was based in the tradition of European science and engineering museums. Its research and collections, however, also focused on national and social history. The renaming of the museum in 1980, said Mr. Gray, reflected a recognition of the expanded NMAH mission, and an understanding of American history and popular culture, science, and technology as an integrated whole.

History, noted Mr. Gray, is no longer celebrated as a core knowledge requirement in America, and great history museums have "become an elusive ideal." Mr. Gray commented on the continuing growth of art and science museums and emphasized the critical need for a museum that presents a national perspective on American history and culture. He noted the proliferation of science, technology, and history centers that offer experiential and high-tech presentations—but lack contextualized, curated perspectives.

In contrast, the NMAH mission is based on a belief that progress is based on an understanding of the nuanced, complicated, and collective story of the history of America. History museums, said Mr. Gray, derive their authenticity from the mix of collections as a whole, coupled with strong presentation and interpretation. He noted, however, that the number of NMAH curatorial staff has been reduced by almost 50 percent over the last 20 years, a figure he characterized as "unacceptable." The museum, he said, also must enhance its collections with new acquisitions. In addition, NMAH must understand and embrace how people think and learn today if it is to help cultivate informed and engaged citizens.

The renovation of the NMAH west wing will allow the museum to use technology and object displays to tell an integrated story of American history that is grounded in chronology and scholarship. The wing's three public floors will be organized around large ideas that address what makes America unique. The exhibitions, programs, and publications on the first floor will address the themes of innovation, creativity, technology, and American enterprise. Second-floor themes will focus on democracy and the peopling of America. The theme of the third floor, said Mr. Gray, will be culture. He also discussed estimated budgets for each floor, and the need to develop alternative fundraising approaches for floors two and three.

Mr. Gray outlined the museum's key intentions going forward. The museum, he said, must

- strengthen its intellectual leadership,
- build up curatorial staff,
- dramatically increase access to collections through digital media, and
- attract the next generation of American history staff.

It is the museum's responsibility, said Mr. Gray, to promote the profound beliefs of the United States, to safeguard the nation's treasures, and to present American history in ways that are substantial, challenging, inviting, accessible, inspiring, and "wonderfully human."

Discussion

Senator Leahy thanked Mr. Gray for his presentation, and asked how the museum can increase its visitorship, given society's decreased interest in history. Mr. Gray noted that the attention of people must now be captured or "grabbed" in order to immerse them in larger, meaningful learning experiences. The three themes or big ideas of the renovated west wing, he said, are designed to pull in museum visitors, and experiential programming will continue to engage their attention.

Ms. Stonesifer asked Mr. Gray to discuss the development of big ideas, outside of the west wing themes, that will support pan-institutional initiatives about the Grand Challenge "Understanding the American Experience." Mr. Gray spoke of discussions with National Museum of the American Indian (NMAI) Director Kevin Gover, NMAAHC Director Lonnie Bunch, and SAAM Director Betsy Broun, who each contributed to the development of the NMAH strategic plan. The museum directors, he said, believe that the American experience is an inclusive one, and that each of the four museums tell the story of the American experience, albeit from different perspectives. Mr. Gray cited several collaborations that are under development, including a NMAH-NMAI exhibition about the native perspective on flags, NMAH-NMAAHC jazz programming that combines both museums' collections, and NMAH contributions to a SAAM exhibition about the American West.

Mr. Sant expressed concern about NMAH's annual attendance figure (5 million) when compared to annual visitation records for NMNH (over 7 million) and the National Air and Space Museum (over 7 million). A visit to NMAH, said Mr. Gray, is now seen as a type of pilgrimage. Visitors view select NMAH objects, such as the Star-Spangled Banner, and then go visit "cool" exhibitions at the other museums. It is essential, he said, that the museum change visitors' experiences. The number of visitors to the museum, he noted, has increased since the museum's last renovation, which included the reinstallation of the Star-Spangled Banner in an engaging exhibition space. Mr. Gray emphasized the importance of animating spaces with programming, such as that at the Greensboro lunch counter display. Fundraising for the NMAH endowment for programming, he said, will advance activities that engage the public.

Mr. Case applauded the museum's plan to use digital technology to encourage and enhance the visitor experience, as well as the museum's focus on the history of technology. He suggested that an increased focus on entrepreneurship, more than enterprise, will attract and engage the attention of the digital generation whose collective experience has been shaped by the contributions of such figures as Steve Jobs. Mr. Gray said that the focus of the museum's new culture floor will be about how people participate in culture. The chronologically based exhibits will guide visitors through experiences that demonstrate how people create their own cultures.

Mr. Gray also commented on a significant change in the museum visitor experience. Historically, an important element of exhibition design was to employ such elements as walls or lights to force visitors to stop, and then to direct their attention to a

display. With the advent of digital technology and hand-held devices, he said, the key to creating an engaged museum experience is to use those devices to encourage museum visitors to pause and then engage in an exhibit or program.

Ms. Fisher asked about the number of repeat visitors to the museum. Mr. Gray said that NMAH does not yet have systems that can determine the number of repeat visitors but said that he hopes it will be able to do so in about a year. NMAH, he said, likely experiences more repeat visitation than is known. Mr. Gray also said that people typically make three visits to the museum: as children, as parents, and as grandparents—adding that the museum seeks to change that pattern by capturing visitors' attention in larger ways, and building up affinity groups who then continue to participate with the museum in meaningful ways.

AFTERNOON SESSION

The Chancellor called the afternoon session to order at 1:20 p.m.

GRAND CHALLENGE SPOTLIGHT: SMITHSONIAN BIODIVERSITY CONSERVATION SCIENCE

Introduction

Dr. Pell introduced a panel discussion on biodiversity science. Noting that four Smithsonian units—STRI, SERC, NMNH, and NZP (including its Smithsonian Conservation Biology Institute, or SCBI)—directly support the Grand Challenge “Understanding and Sustaining a Biodiverse Planet,” she said that the Smithsonian’s collective strengths in biodiversity conservation science are unmatched. She also stated that these resources remain relatively unleveraged and unrecognized. This discussion, Dr. Pell said, would focus on “sustaining,” and the Smithsonian’s efforts to capitalize on its resources in biodiversity conservation science and achieve measurable impact on this Grand Challenge.

Dr. Pell commented on the diversity of the Smithsonian’s biodiversity conservation initiatives. STRI conducts research on tropical forests and marine life; SERC studies landscape ecology from the perspective of the Chesapeake Bay; NMNH collections support conservation research and education; and NZP/SCBI considers individual species, training, and education. In an effort to pool and better leverage their biodiversity conservation resources, representatives from each unit formed the Conservation Council led by SCBI Director Steve Monfort about one year ago.

Late in 2012, said Dr. Pell, Boston Consulting Group (BCG) approached the Smithsonian with an offer to do a pro bono project. Informed about the Smithsonian’s need to better coordinate and utilize its biodiversity conservation resources, as well as gain access to untapped funding resources, BCG produced a comprehensive report that stated that the Smithsonian has unmatched capabilities in the science aspects of biodiversity conservation. BCG also stated that these efforts are under-resourced, estimating that the Smithsonian should be able to successfully compete for as much as \$100 million in available funding, well beyond what is currently being accessed. Buttressed by the report’s findings, the four units and the Conservation Council are moving forward to effectively coordinate, leverage, and advance the Smithsonian’s biodiversity conservation science initiatives.

Leveraging Smithsonian Science to Address Critical Conservation Challenges: A Blueprint for Biodiversity Conservation

Dr. Monfort provided an overview of the Smithsonian’s capabilities in biodiversity conservation. He highlighted the Smithsonian’s work in basic science (increasing knowledge); applied science (applying that knowledge to conservation problems); and outreach (which includes training the next generation of conservation scientists). The Smithsonian’s position in biodiversity conservation science is enhanced by the geographic diversity of its research centers. The Smithsonian’s biodiversity conservation portfolio, he said, ranges from studies of genomes to complete organisms, from marine to terrestrial landscapes, from species to habitats to ecosystems.

The Earth's biodiversity is disappearing. To date, over 1.5 million species have been identified on the planet, and it is likely that over 10 million have yet to be discovered. Citing vertebrate classes as an example, Dr. Monfort said that nearly one quarter of all known vertebrate species are at risk of extinction. Threats to some other taxonomic groups are greater.

Dr. Monfort spoke of historical threats to biodiversity through overexploitation, the introduction of invasive species, pollution, climate change, and habitat loss and fragmentation. He asked "Why should we care?" The answer, he said, lies in the fact that biodiversity provisions all of the services mankind needs to survive: air, water, food, fuels, and fiber.

Dr. Monfort then compared the Smithsonian's position in biodiversity conservation science efforts with that of other well-known conservation organizations. The Smithsonian, he said, is an intellectual leader in basic and applied conservation science; it also has unparalleled outreach capabilities. In addition, the Smithsonian is committed to training the next generation of biodiversity conservation scientists.

Last year, the Conservation Council asked Smithsonian scientists to self-identify their ongoing efforts in conservation sciences. The responses revealed that there are 60 scientists working with 300 partner institutions in 28 countries on four continents doing 100 separate projects on 50 species. The scholarly output of these scientists, said Dr. Monfort, resulted in over 70 peer-reviewed publications. He noted that these results likely underrepresent the full scope of biodiversity conservation science currently under way at the Smithsonian. Moreover, said Dr. Monfort, they demonstrate that the Smithsonian is uniquely positioned to study major threats to biodiversity and to leverage scientific capacity towards actions that are likely to enhance species and ecosystem management, environmental education, and capacity building for the future.

Dr. Monfort cited examples of Smithsonian biodiversity conservation science projects, such as the reintroduction into Chad of 500 oryx that are currently extinct in the wild. He spoke of the global tiger initiative in South and Southeast Asia, which is working to double the 3,200-some tigers in the wild by 2022; efforts to save frogs threatened by a deadly fungus in Panama; and the emerging pandemic threats program that is developing a global early-warning system for emerging zoonotic diseases.

The Smithsonian possesses an amazing spectrum of assets, said Dr. Monfort, but it must leverage its assets more effectively. To sustain biodiversity, as well as build the scientific and technical capacity of current and future generations, it must build stronger partnerships and be a leader in biodiversity conservation science.

**Agua Salud Project: An
Integrated Ecosystem
Services Project**

STRI staff scientist Jefferson Hall, who leads a 750,000-acre smart reforestation experiment in the Panama Canal watershed area, spoke of the competition between land and water use in tropical watershed areas. Dr. Hall reported that on December 7, 2010, in one of the wettest years in Panama, over 12 inches of rain fell in a 24-hour period in the Panama Canal watershed. For the first time in its history, the Panama Canal was closed due to an act of nature. The rains, said Dr. Hall, continued, and five days later there was another storm peak. In the deforested area above the Madden

Dam, which stores and regulates much of the water that flows through the Panama Canal, 112 million cubic meters of additional water nearly breached the dam, as well as the dams downstream. If that had occurred, said Dr. Hall, 5 percent of global trade would have stopped immediately. It was predicted that, once the dams were rebuilt, it would have taken four years to refill the Panama Canal.

The state of watershed areas in Panama and across the tropics reflects a global competition for land, water, and all of the goods and services that provide for a growing population. Dr. Hall explained that forests act like a sponge, whereas deforested areas contribute to either too much water flow or to drought conditions. Too much or too little water, said Dr. Hall, are both problems, and predictions of climate change indicate increases in the frequency of large, damaging storms.

STRI's smart reforestation project—the Agua Salud Project—is at the leading edge of forest science and applied conservation. STRI scientists are inventing mechanisms for smart reforestation under complex land-use scenarios. The work, said Dr. Hall, is at the intersection of science, commerce, policy, and nature. Early data is already influencing policies and practices for managing carbon sequestration, land and water regulation, and biodiversity conservation, as well as helping return degraded soils to productivity.

Because of growing populations, said Dr. Hall, good tropical soils will be used for agriculture. Smart reforestation must be productive on these fertile soils, and diverse forests must be developed that meet different management objectives. STRI's research on smart reforestation across the tropics, as well as other watershed areas, will help guide land-use management and biodiversity conservation efforts in an increasingly complex future.

Conserving the Orchids of North America

Dennis Whigham, senior botanist at SERC, spoke about the Smithsonian's research on orchids, which have the largest number of species—35,000—of any family of plants on earth. The majority of orchids live in the tropics and subtropics, but over 250 species of orchids are native to the United States and Canada.

The Smithsonian has been a long-time leader in the study of orchids, particularly native orchids, and the ecology of the relationships between orchids and fungi. Each orchid, said Dr. Whigham, requires fungi at every stage of its life cycle. In addition, there are at least two stages in the life of each orchid during which it is totally dependent on fungi. Fungi occur mostly on the roots of orchids, where they form structures that the orchids digest. The structures, called pelotons, are completely controlled by the orchid and are of no known benefit to the fungi.

The interaction between orchids and fungi represents an important biodiversity element, said Dr. Whigham, and the successful restoration of orchids therefore requires an approach that assures the survival of both the orchids and their fungal partners. The Smithsonian, he said, has the largest living collection of orchid fungi in the United States, most of which are new to science. To understand the ecology of any one orchid species, said Dr. Whigham, scientists must first understand the interactions between animals and fungi. To date, none of the interactions of the 250-some species of orchids native to the United States and Canada are understood, and

approximately 70 percent of these species are endangered. Orchids, said Dr. Whigham, are “the canary in the coal mine.”

The Smithsonian, reported Dr. Whigham, has joined with the United States Botanic Garden to establish the North American Orchid Conservation Center (NAOCC), a large-scale collaborative effort to support the survival of orchids native to the U.S. and Canada. NAOCC will be a public-private collaboration that includes partners across the United States. Three other Smithsonian units—NMNH, NZP, and Smithsonian Gardens—also are involved in the Grand Challenge–based initiative. NAOCC, which is the first continental-scale plant conservation effort at the Smithsonian, will establish national seed and fungal banks, determine how to propagate and restore native orchids, and develop educational activities that support the survival of the species.

Marine Conservation Science

Nancy Knowlton, the NMNH Sant Chair in Marine Science, discussed biodiversity conservation through the lens of marine conservation science. She noted that she also spent 20 years with STRI.

Covering over 70 percent of the planet, the ocean is vast and diverse, complex and changing, largely unexplored, and important to all life. It also is in trouble. The importance of the ocean, said Dr. Knowlton, is made evident to each visitor to the NMNH Sant Ocean Hall. The hall also demonstrates the Smithsonian’s commitment to informing and engaging the public in efforts to conserve and repair ocean’s health.

There are three components to the Smithsonian’s contributions to ocean conservation: understanding threats through science and education, providing solutions, and outreach. Dr. Knowlton first discussed the Tennenbaum Marine Observatories Network, which seeks to understand how the ocean is changing over time, and educate populations about its care. The impact of the observatories will extend far beyond the initial marine launch sites: the development of scientific methods and educational approaches will lead to a better understanding of threats to the ocean’s health. Studies of a reef in Papua New Guinea, for example, demonstrate the effects of rising acidification on the ocean’s biodiversity. The chemistry of that reef, said Dr. Knowlton, offers a preview of what the rest of the ocean may look like in 50 to 100 years. The methods of the observatories, she added, also are useful for educating students, citizen scientists, and researchers across the world.

Dr. Knowlton then highlighted some of the Smithsonian’s efforts to provide solutions to threats to the ocean’s health. She spoke of a project in Honduras in which a protected, sustainable lobster fishery was created in shallow waters in order to protect the physical safety and livelihoods of local fishermen. Another major conservation effort, she said, is SERC’s study of invasive species. The multifaceted effort includes large databases that track invasive species, as well as engages the contributions of citizen scientists.

Outreach efforts, said Dr. Knowlton, amplify the Smithsonian’s research and conservation efforts. She said that Sant Ocean Hall and the soon-to-open “Q?rius Center” will allow visitors the opportunity to interact firsthand with exhibits and scientists. In addition, the hall is undergoing a conservation messaging makeover that will focus on both threats and solutions to the ocean’s health. One example cited is

the new “Science on a Sphere” program, which conveys information about the complex science of ocean warming and acidification, as well as the urgent need to address these threats. Web-based outreach is supported by the Ocean Portal, which is largely dedicated to understanding ocean conservation. The website receives over 1 million unique visitors each year, she said, and numbers are growing. The portal will soon host “Beyond the Obituaries,” a program that highlights compelling success stories in marine conservation; it also will launch a platform on which citizen scientists can share other success stories. Providing people with an emotional connection to the problem, said Dr. Knowlton, is essential to the success of conservation efforts.

Discussion

Mr. McCarter asked Dr. Monfort how the Smithsonian can be assured that the collective efforts of different organizations’ conservation efforts are making an impact, or if in fact they are fragmented. He cited the Global Tiger Initiative, and noted other organizations’ tiger conservation efforts. Dr. Monfort spoke of the Smithsonian’s role as a trusted convener or broker. Organizations and nations, he said, recognize that the Smithsonian’s training and capacity building adds value to what others are doing.

Mr. Sant said that the presentation effectively characterized the extent of the global threat to biodiversity, stating his opinion that the loss of biodiversity may be the primary issue facing mankind. He questioned BCG’s finding that the Smithsonian must get a greater share of the “pie” of available funding. The Smithsonian’s role, he argued, should be to expand the size of the pie to address these problems.

Noting that collaborative initiatives will most likely secure the most funding, Mr. Case asked about such efforts both within the Smithsonian and with outside organizations. How, he asked, does the Smithsonian position itself as the “grand convener” to outside organizations? Commenting on the Smithsonian’s capacity to be a convener, Dr. Pell spoke of its response to an event in early April 2013, when USAID issued an RFP for a tiger initiative in Bangladesh. Within 48 hours, newly appointed Office of International Relations Director Molly Fannon flew to Bangladesh, all four biodiversity conservation units convened to draft a proposal, and Dr. Pell met with representatives from the Bangladeshi NGO.

Mr. Rubenstein asked Dr. Monfort if the number of all species that have existed on Earth is known. He also asked how many species now exist, how many species die each year, and how many new species emerge each year. Dr. Monfort, noting that his response would be “data deficient,” responded that 1.5 million species have been identified to date, and that some estimates range up to 10 million and beyond. Current rates of extinction, he said, greatly exceed background rates by an order of magnitude, and species are going extinct before they have been discovered.

Noting that extinction can be a natural process, the Chancellor asked if researchers can determine when they are intervening in a natural process versus taking a corrective action in response to a man-made problem. He also asked if actions are ever undertaken in response to a process of natural extinction. Dr. Monfort said that very few species have gone spontaneously extinct for natural reasons. Responses to those extinctions, he said, vary. He also noted that research has proven that the vast majority of extinctions are caused by humans. In response to a question from

Mr. Case about de-extinction efforts, Dr. Monfort said that it is not practical to divert resources towards bringing a species back from extinction when existing species do not receive adequate protection.

Mr. Rubenstein asked if scientists know how many of the species that ever existed are now extinct. He noted that non-specialists often quote a figure of 99 percent. Although exact figures are not available, Dr. Knowlton said that that number is not “wildly off.”

Ms. Stonesifer applauded the collaborative efforts of Smithsonian researchers, citing the example of pan-institutional efforts to combat the fungus threatening amphibians in Panama. She commented on the visibility of conservation advocacy groups, suggesting that the Smithsonian strengthen its fundraising capacity by expanding and raising the visibility of its conservation education and outreach initiatives. Dr. Pell, noting that the Smithsonian cannot conduct advocacy or policy work, said the development of a Smithsonian biodiversity conservation brand and website has been discussed. Dr. Monfort said that the Smithsonian, if it is committed to having an impact on global biodiversity conservation, must strengthen its fundraising capacity in support of these efforts. Mr. Sant suggested that the Smithsonian investigate unique areas, such as the global genome project, where only the Smithsonian has the ability to provide global leadership. Expanding those efforts, he said, will strengthen the Smithsonian’s ability to generate new sources of funding.

SERIOUSLY AMAZING: 40TH ANNIVERSARY OF VIET NAM’S RELEASE OF AMERICAN POWS

Dr. Kurin introduced Jennifer Jones, the chair of the NMAH Armed Forces History Division. Ms. Jones, who oversees the museum’s numismatics and military uniform collections, also was responsible for the museum’s comprehensive uniform rehousing project.

Noting that 2013 is the 40th anniversary of the liberation of American soldiers held captive in Viet Nam, Ms. Jones displayed the POW bracelet of Congressional Regent Sam Johnson. The museum acquired the bracelet from a donor, who had received it from Representative Johnson and his family. The bracelet is one of about 50 POW-MIA bracelets in the museum’s collections, which began acquiring Viet Nam memorabilia when it opened the *Price of Freedom* exhibition in 2004. The Board joined Ms. Jones in thanking Representative Johnson for his service.

REPORT OF THE GOVERNANCE AND NOMINATING COMMITTEE

Bylaw Amendments

Governance and Nominating Committee Chair Roger Sant reported that the committee met three times since the last Board meeting. In addition to discussing the search process for two candidates to fill the positions that will be created when Ms. Stonesifer and Mr. Sant rotate off of the Board, the committee considered proposed bylaw revisions to the NMNH Board. The revisions, said Mr. Sant, are

intended to update certain language, align the advisory board's term limit waiver policy with Smithsonian policy, and require orientations for new board members. The motion was approved.

See attached Action 2013.04.10 (Minutes of the Board of Regents, Appendix A).

**Advisory Board
Appointments**

Mr. Sant presented the committee's recommendation that the Board of Regents appoint or reappoint members to 10 Smithsonian advisory boards. He commented on the wealth of talent that is found on the Smithsonian's advisory boards, and noted that it is the intention of the Governance and Nominating Committee to help bring the performance of all Smithsonian advisory boards up to best practices. Mr. Rubenstein and Mr. Sant, both candidates for reappointment to the NMNH Board, recused themselves from the vote. The motions were approved en banc.

See attached Actions 2013.04.11–2013.04.20 (Minutes of the Board of Regents, Appendix A).

Charter Amendments

Mr. Sant then presented the Audit and Review Committee's recommendation that the Board approve suggested clarifications to the committee's charter. The proposed changes are intended to clarify the charter's provisions regarding membership and conflicts of interest, references to the Board Bylaws, and periodic reviews of the charter. The motion was approved.

See attached Action 2013.04.21 (Minutes of the Board of Regents, Appendix A).

The Board adjourned for an executive session at 2:36 p.m.

EXECUTIVE SESSION

During the executive session, Governance and Nominating Committee Chair Roger Sant updated the Board on the search process for two new Citizen Regents.

ADJOURNMENT

Dr. Córdova thanked the Regents for their participation. The executive session adjourned at about 3:30 p.m.

Respectfully submitted,

G. Wayne Clough
Secretary

APPENDIX A: ACTIONS OF THE APRIL 29, 2013, MEETING OF THE BOARD OF REGENTS

VOTED that the Board of Regents approves the naming of the National Museum of the American Indian's Director's Terrace in honor of Senator Daniel K. Inouye. [2013.04.02]

VOTED that the Board of Regents approves the minutes of the January 28, 2013, meeting of the Board of Regents. [2013.04.03]

VOTED that the Board of Regents approves a 5 percent payout from the Smithsonian Endowment in fiscal year 2014 to support programmatic activity. The Board further authorizes up to an additional 1 percent payout from the Smithsonian Endowment in fiscal year 2014 to fund certain expenses associated with the national fundraising campaign. The payout shall be calculated against the current five-year average market value of the Smithsonian Endowment. [2013.04.04]

VOTED that the Board of Regents authorizes the Secretary to analyze financing needs for Trust-funded capital projects and to research potential debt structures should it be determined that a borrowing is necessary. Further, the Secretary shall present any proposed debt issuance to the Finance Committee for a recommendation to the full Board for approval. [2013.04.05]

VOTED that the Board of Regents recognizes the generosity of the Wallace H. Coulter Foundation to the National Museum of American History and its *American Enterprise* exhibition and names the first-floor public space adjacent to the exhibition the Wallace H. Coulter Performance Plaza for a period of no less than 20 years from the date the exhibition opens; names, subsequent to the fulfillment of a challenge grant, the interactive activity space within the exhibition the Wallace H. Coulter Exchange for a period of no less than 20 years from the date the exhibition opens; and names a program series in honor of Wallace H. Coulter for a period of five years from the date the exhibition opens. [2013.04.06]

VOTED that the Board of Regents recognizes the generosity of the Lemberg Foundation to Cooper-Hewitt, National Design Museum, and names the former breakfast room in the museum's Carnegie Mansion the Usdan Family Gallery for 40 years. [2013.04.07]

VOTED that the Board of Regents recognizes the generosity of Nancy Marks to Cooper-Hewitt, National Design Museum, and names the former bedroom of Mrs. Andrew Carnegie in the museum's Carnegie Mansion the Marks Family Gallery for 40 years. [2013.04.08]

VOTED that the Board of Regents creates a quasi-endowment to be utilized at the discretion of the Director of the Freer Gallery of Art and Arthur M. Sackler Gallery for purposes including, but not limited to, acquisition, conservation, exhibitions and research in the field of Chinese art. Further, the Board authorizes the transfer of funds identified for this purpose. [2013.04.09]

VOTED that the Board of Regents approves the proposed amendments to the bylaws of the Board of the National Museum of Natural History. [2013.04.10]

VOTED that the Board of Regents appoints Raul Fernandez, Julie Flynn, and Philip K. Ryan and reappoints Valerie Anders, Brenda Gaines, Shelby Gans, Edward Hintz, Judy Huret, Marna Schnabel, and Deborah Wince-Smith to the Smithsonian National Board, all for three-year terms effective October 1, 2013. [2013.04.11]

VOTED that the Board of Regents appoints Susan Norton to the Advisory Council of the Center for Folklife and Cultural Heritage for a three-year term effective June 25, 2013. [2013.04.12]

VOTED that the Board of Regents appoints Carl Bass, Andy Berndt, and David Lubars to the Board of Trustees of Cooper-Hewitt, National Design Museum for three-year terms effective immediately. [2013.04.13]

VOTED that the Board of Regents appoints Christopher Reynolds and reappoints Merit Janow to the Board of Trustees of the Freer Gallery of Art and the Arthur M. Sackler Gallery, each for four-year terms effective September 27, 2013. [2013.04.14]

VOTED that the Board of Regents appoints Shephard W. Hill and David P. Storch to the Board of the National Air and Space Museum for three-year terms effective immediately. [2013.04.15]

VOTED that the Board of Regents appoints Lynn Cutler to the Board of Trustees of the National Museum of the American Indian for a three-year term effective immediately and reappoints S. Haunani Apoliona, Brian Patterson, and Brenda Toineeta Pipestem to the Board of Trustees for three-year terms effective January 1, 2014. [2013.04.16]

VOTED that the Board of Regents reappoints David Rubenstein to the Board of the National Museum of Natural History for a three-year term effective immediately; Roger Sant for an exceptional three-year term effective May 1, 2013; and John Fahey for a three-year term effective June 1, 2013. [2013.04.17]

VOTED that the Board of Regents appoints Angela Marriott, Terry D. McCallister, and Emanuel Rouvelas to the National Advisory Board of the National Zoological Park for three-year terms effective immediately. [2013.04.18]

VOTED that the Board of Regents appoints Todd Krasnow to the Advisory Board of the Smithsonian Astrophysical Observatory for a three-year term effective immediately. [2013.04.19]

VOTED that the Board of Regents reappoints John Stamato to the Advisory Board of the Smithsonian Environmental Research Center for a three-year term effective immediately. [2013.04.20]

VOTED that the Board of Regents approves the amended Charter of the Audit and Review Committee. [2013.04.21]