

MINUTES OF THE JUNE 24, 2013, MEETING OF THE BOARD OF REGENTS

ATTENDANCE

This scheduled meeting of the Board of Regents was held on Monday, June 24, 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:

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

Sakurako Fisher, Smithsonian National Board Chair

Alan Spoon, Regent Emeritus and Advancement Committee Chair

The Chancellor, Chief Justice John G. Roberts, Jr.; Vice President Joseph R. Biden Jr.; and Senator Jack Reed 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 (ASEA)	Jeffrey P. Minear, Counselor to the Chief Justice
Amy Chen, Chief Investment Officer	Tonya N. Williams, Assistant to the Vice President
Virginia B. Clark, Director of Advancement and Philanthropic Giving	T.A. Hawks, 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)	Moira 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	Margaret Chmiel, Smithsonian Science Education Center Educational Technology Specialist ²
Judith Leonard, General Counsel	Peter Haydock, ASEA Senior Technology Manager ²
Evelyn S. Lieberman, Director of Communications and External Affairs	Mathew Holman, Smithsonian Astrophysical Observatory Senior Astrophysicist ²
Christopher Liedel, President of Smithsonian Enterprises	Kirk Johnson, Sant Director of the National Museum of Natural History ²
	Peter Marra, National Zoological Park Research Scientist ²
	Stephanie Norby, Director of the Smithsonian Center for Learning and Digital Access ²

¹ Mr. Case participated in the morning session.

² Ms. Chmiel, Mr. Haydock, Dr. Holman, Dr. Johnson, Dr. Marra, and Ms. Norby 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 Córdoba. The executive session adjourned at about 9:45 a.m.

REPORT OF THE BOARD AND EXECUTIVE COMMITTEE CHAIR

Introductory Remarks

Board Chair France Córdoba called the open session to order at 9:48 a.m. She thanked staff for their contributions towards the previous evening's dinner honoring emeriti members of the Board of Regents, which was attended by Regents Emeriti Jeannine Smith Clark, James R. Sasser, Alan G. Spoon, and R. James Woolsey. She noted two changes on the grounds outside of the Smithsonian Castle Building: preparations for the 2013 Folklife Festival scheduled to open on June 26 and the removal of the crane from the Arts and Industries Building. Dr. Córdoba also reported that she and Board Vice Chair John McCarter recently visited the National Museum of African American History and Culture (NMAAHC) construction site. Secretary Wayne Clough noted that the project is on time and on budget, and that water issues on the site have been addressed. The placement of a Jim Crow-era Pullman railway car, an iconic object in the museum's collection around which the building will be constructed, may occur as early as October 2013.

Dr. Córdoba updated the Regents on the fifth annual Smithsonian advisory board chair retreat, which was held on June 12, 2013, and cohosted by Dr. Córdoba and Secretary Clough. Representatives from 15 Smithsonian advisory boards participated. Feedback from retreat discussions about sequestration planning and strengthening the advisory boards will be forwarded to the Governance and Nominating Committee. Participants were informed that Booz Allen Hamilton has been contracted to advise on ways to better engage and utilize the boards' assets, as well as develop their leadership capacity in advisory board best practices. A one-page statement of work for expert consultants was provided to the Regents for their review.

Dr. Córdoba also noted that she and Secretary Clough attended the annual Smithsonian Affiliations conference, which was held in the U.S. Capitol building. She thanked Congressional Regent Tom Cole for hosting the event.

Actions Between Meetings

Dr. Córdoba reported on two actions taken by the Executive Committee on behalf of the Board since its April 2013 meeting. A new member was appointed to the National Postal Museum Council of Philatelists and the naming of the future NMAAHC theater for Oprah Winfrey was approved in recognition of her \$13 million in total gifts to the new museum.

The minutes of the April 29, 2013, Board meeting were presented for approval. The minutes were approved without comment or revision.

See attached Action 2013.06.01 (Minutes of the Board of Regents, Appendix A).

Dr. Córdoba noted that July 1, 2013, will be the fifth anniversary of the appointment of Secretary Clough. She said that the Secretary has laid the groundwork for the Smithsonian's first national campaign; led the development of an ambitious, comprehensive, and unique strategic plan; repaired the Smithsonian's relationship with the Congress and other stakeholders; instilled a spirit of entrepreneurship and creativity in all aspects of what the Smithsonian does; and restored a sense of pride and mission across the Smithsonian. The Board joined Dr. Córdoba in a round of applause in recognition of the Secretary's accomplishments. The Secretary thanked the Board for their support and acknowledged the many contributions of staff in the advancement of these initiatives.

REPORT OF THE SECRETARY

The Secretary updated the Board on recent Smithsonian news, activities, and initiatives. He announced that the National Zoological Park's (NZP) recently expanded Elephant House welcomed Bozie, a female elephant from the Baton Rouge Zoo. Negotiations are nearly complete regarding the transfer of three elephants from the Calgary Zoo. One of those female elephants, said Secretary Clough, is fertile. The Secretary also noted that the 2013 Folklife Festival will open on Wednesday, June 26, 2013. Hungary is the featured nation.

Recognitions

The annual report, said the Secretary, is one of the best created to date. He credited Director of Advancement and Philanthropic Giving Virginia Clark and Director of Communications and External Affairs Evelyn Lieberman for their efforts, and the Board concurred with a round of applause. Caroline Baumann was hired as the director of Cooper-Hewitt, National Design Museum. The Secretary thanked Under Secretary Kurin for leading the search process. He later noted that Ms. Lieberman recently hired Spanish language media expert Maria Anderson to help raise the Smithsonian's visibility in the Latino community, adding that nearly all of the Smithsonian's digital sites now have language translation capabilities.

Nancy Knowlton, National Museum of Natural History's (NMNH) Sant Ocean Chair, was recently named to both the National Academy of Sciences and the American Academy of Arts and Sciences. Smithsonian Environmental Research Center (SERC) Director Tuck Hines was named one of five "Green Heroes" by *Washingtonian* magazine. The Office of Public Affairs and the National Air and Space Museum (NASM) won the 2013 Silver Anvil Award of Excellence for the Smithsonian's social media coverage of the arrival of the Space Shuttle *Discovery*. The Secretary noted that over 2 billion people responded to the event.

The Council on Botanical and Horticultural Libraries recently bestowed the

Charles Robert Long Award of Extraordinary Merit, its highest recognition, on the Biodiversity Heritage Library. The Secretary shared a copy of Smithsonian Enterprises' *Super Nature* book; both that book and *Giant Squid* were recipients of National Science Teachers Awards. National Museum of American History (NMAH) Political Historian Larry Bird's recently released book *Souvenir Nation* has generated a lot of publicity.

The Smithsonian Channel production "9/11: Stories in Fragments" was awarded the CINE Masters Award for Excellence as the best non-fiction telecast of the year. The Channel, reported the Secretary, will be telecast in Canada and is negotiating similar international opportunities with Turkey, South Korea, and Brazil. The American Association of School Librarians named the Smithsonian's website www.seriouslyamazing.si.edu the best website for teaching and learning.

The Secretary reported that visitation rates are slightly ahead of last year, which achieved the highest visitation rate in about a decade.

Federal Budget Update

The Smithsonian is operating on a full-year continuing resolution (CR) that is holding Federal funding at the fiscal year 2012 level, less sequestration reductions totaling \$42 million. The Secretary thanked the congressional Regents for their efforts to help the Smithsonian receive an additional \$5 million in operational funding for the NMAAHC and \$2 million of capital for repairs to facilities damaged by Hurricane Sandy.

In preparation for the possibility of sequestration, a series of activities were put in place to prepare for fiscal year 2013 reductions. These measures, said the Secretary, are temporary and will not be sufficient to address future budget reductions. Conditions for the fiscal year 2014 Federal budget are not promising. One possible scenario would result in a \$65 million cut in Federal funding, and additional reductions could be implemented if Congress diverts cuts to defense funding to other Federal agencies.

The Smithsonian, said the Secretary, is taking all available actions to prepare for the possibility of additional Federal funding cuts. In addition to regular meetings between Under Secretary for Finance and Administration/Chief Financial Officer Al Horvath and top financial staff, the several Smithsonian directors will meet in July 2013 to discuss how the Smithsonian could absorb a possible \$65 million cut. A proposal for the budget process will be developed for the Regents' review. A portion of the retreat will be devoted to discussing how the Smithsonian can achieve its strategic goals by 2017. The Secretary also noted that, at Dr. Córdova's suggestion, a website was launched to invite cost-savings proposals from Smithsonian staff; over 400 suggestions have been received to date.

The Secretary asked if the congressional Regents had any additional comments to offer on the Federal budget. Representative Cole, who sits on the Interior Appropriations Committee, noted that the House's 302B allocation has been reduced by 19 percent. The House, he said, largely agrees on funding for defense, homeland security, military construction, and agriculture but funding for other agencies, particularly interior appropriations, is unclear. Resolution of the Federal

budget situation will depend upon the ability of the House and the Senate to develop a deal on discretionary spending. The two chambers, he said, are currently about \$92 billion apart in their proposed budgets. He also noted that the nation will reach its debt ceiling in October 2013.

Senator Leahy noted that the House moves first on appropriation bills. In preparation, the Senate has developed and marked up a number of appropriations bills. He noted that the allocations in the House bills, as he understands it, are greater than those in the companion Senate bills. Ideally, he said, budget conferences would be held but the objections of two members have prevented such meetings.

The bad news, stated Senator Cochran, is that “we are out of money.” Under the Budget Act, Congress is limited in what it can appropriate. The standoff in Congress, he said, could result in another CR process. Representative Becerra noted his belief that there will be a late-year budget deal. The “wild card,” he said, will be defense and homeland security funding.

Trust Budget Update

Revenues from Smithsonian Enterprises (SE) total \$92.4 million, representing a \$1.3 million gain over prior year revenues. SE net gain revenues stand at \$18.6 million, which is \$2 million ahead of last year’s gains. The Endowment also is up, standing at \$1,161.8 million as of May 31, 2013. The Endowment payout, said the Secretary, will not change because it is based on a five-year trailing average.

The national campaign is doing well, standing at about 47 percent of its working goal. It is anticipated that the campaign will reach over 60 percent of its working goal by the time of the fall 2014 public launch. Fiscal year 2013 annual fundraising, he noted, is not as strong; it is possible that the stretch goal of \$220 million might not be met.

Dr. Córdova asked about advisability of SE direct mailing costs, which were detailed in the Smithsonian’s IRS 990. SE Chris Liedel said that SE is moving towards an e-commerce model but, in order to maintain its current customer base, is continuing to conduct certain direct mail activities during the transition.

The Smithsonian recently launched two fundraising crowdsourcing initiatives. One is for *Yoga: The Art of Transformation*, a Sackler Gallery of Art exhibition scheduled to open in October 2013, and the other is *America’s Family Album*, an audience engagement campaign. Fundraising for the NMAAHC is gaining momentum, and the museum has a strong pipeline of significant gifts.

Education, Consortia, and Exhibition Updates

The Smithsonian Science Education Center’s Leadership and Assistance for Science Education Reform (LASER) model passed the next level of external evaluations in its U.S. Department of Education i3 grant. It is rated one of the top programs funded in the innovation initiative. The “boots on the ground” program, said the Secretary, has reached over 70,000 students and 3,000 teachers. The Smithsonian is now positioned to compete for the next round of grants, which total \$35–50 million.

A number of Smithsonian education centers have opened or soon will be opening. The National Museum of the American Indian's education center on the National Mall has opened, as also has a center at the Smithsonian American Art Museum (SAAM). Education centers at the NMNH and the National Postal Museum will open in fall 2013. The centers are an important part of the Smithsonian's outreach efforts.

The first director of a Consortia initiative has been hired. J. Emmett Duffy, a prominent marine scientist, is the first director of the Tennenbaum Marine Observatories. The Secretary noted that the financial support of Smithsonian National Board (SNB) member Michael Tennenbaum has provided for the new position; he also thanked Under Secretary for Science Eva Pell for leading the search process.

The collaborative initiative "Our American Journey" (formerly known as "Americans All") is developing many outreach activities. A joint exhibition with the Newseum is scheduled to open in May 2014. *One America with News for All: How Ethnic News Shaped America*, the working title of the exhibition, is being planned with the help of ethnic news services in four cities and the National Park Service.

The Secretary commented on a few of the many excellent Smithsonian exhibitions now on view. *Genome: Unlocking Life's Code* opened at the NMNH in June 2013. The Archives of American Art played a central role in the centennial celebration of the New York City Armory Show. The exhibition *I Want the Wide American Earth: An Asian Pacific American Story*, a collaboration between the Smithsonian Institution Traveling Exhibition Service and NMAH, opened in May 2013 and will travel to 14 venues in the next three years.

FINANCIAL DASHBOARD

Revenues

Under Secretary Al Horvath discussed the financial dashboard and quarterly financial report. Noting that the Smithsonian is operating under a CR for the remainder of fiscal year 2013, he reported that the Smithsonian's sequestration plan for fiscal year 2013 was formally approved by the Office of Management and Budget on May 10, 2013. No further changes or adjustments are expected.

Noting that the fiscal year 2013 fundraising goals for gifts and sponsored projects are aggressive, Mr. Horvath stated that both are projected to be behind budget at fiscal year-end. He emphasized, however, that 47 percent of the national campaign working goal has been raised with only 38 percent of the campaign fundraising schedule elapsed. In addition, fiscal year 2013 sponsored projects revenues will exceed fiscal year 2012 goals. Mr. Horvath added that funds are not expended against those two resource pools until received, and so risk remains low. He also noted that SE is expected to exceed its fiscal year 2013 net gain goal.

Expenses

The Smithsonian's fiscal year 2013 Federal expenditures, reported Mr. Horvath, are

trending according to the sequestration-level plan and are anticipated to achieve balance by fiscal year-end. Trust expenses are anticipated to be on or below budget at fiscal year-end. He said that, considering the uncertain Federal budget climate, management is feeling reasonably positive about the Smithsonian's fiscal year-end forecast.

Capital projects are doing well, said Mr. Horvath. The construction of the NMAAHC will be especially busy in the next four to six weeks. The design of the building is almost complete and the final work package is out for bid. The final construction price, said Mr. Horvath, should come in at the end of July 2013. The shape of the new museum is emerging: the site excavation is essentially complete and the focus is now on concrete formation. Mr. Horvath encouraged the Regents to attend the installation of the Jim Crow-era Pullman railway car in the fall. The Secretary added that the building is designed to meet LEED gold certification, and may in fact achieve LEED platinum standards.

**Federal Budget: Fiscal Year
2014 and Beyond**

Mr. Horvath discussed planning for fiscal year 2014 and beyond with regard to the Federal budget and sequester negotiations. He noted that the Federal budget process is very unclear at this time.

The Smithsonian has been developing an expense reduction plan process that will target roughly \$65 million in cuts in response to the possibility of continuing budget reductions imposed by sequestration. The first action in this process, said Mr. Horvath, was completed in April 2013. Each Smithsonian unit prepared and submitted a 7 percent reduction plan to the central budget office, which in turn analyzed the submissions. On June 3, all Smithsonian financial officers participated in a half-day retreat during which participants discussed different budget reduction strategies. The strategies, said Mr. Horvath, were considered from an institutional, strategic, and holistic perspective. With regard to the "Cost Savings" website previously described by the Secretary, Mr. Horvath reported that the responses received from staff were thoughtful. Many of the proposed ideas, he said, could "bear fruit" in the future.

Currently, cost-savings ideas fall into five broad areas: activities that could be eliminated, potential consolidations designed to achieve greater efficiencies, services that could be outsourced, revenue-generating ideas, and changes to the museums' current operating model (such as closing Smithsonian museums one day a week). The cost-savings potential of different proposals are being assessed, and the data from the analyses will help inform discussions at the July 2013 all-directors retreat.

Mr. Horvath said that the Finance Committee will meet on August 24, 2013, and that efforts are on track to present a plan that will address how the Smithsonian can move forward if faced with Federal budget reductions of the magnitude discussed.

REPORT OF THE INVESTMENT COMMITTEE

Investment Committee Vice Chair Steve Case presented the Investment Committee report on behalf of Investment Committee Chair David Silfen. Mr. Case said that, as

of March 31, 2013, the Endowment's returns were exceeding its trailing one-, three-, five-, and 10-year policy benchmarks. The committee, he said, agrees that the Endowment is well-positioned because of both the strong market and the leadership of Chief Investment Officer Amy Chen. He reported that the committee approved limited changes to the long-term policy portfolio and investment guidelines; asset allocations also were slightly modified. Mr. Case added that Mr. Silfen advised that, although the Endowment's performance has been strong over the last year, the Smithsonian "cannot be complacent."

REPORT OF THE ADVANCEMENT COMMITTEE

Update on the National Campaign

Advancement Committee Chair and Regent Emeritus Alan Spoon updated the Board on the launch of the national campaign and the committee's recommendations regarding two major gifts.

He commented on campaign progress and challenges. Efforts to involve volunteers and donors have been successful. Since the beginning of the campaign work, the number of donors pledging \$25,000 to \$1 million has increased by one-third. This momentum will benefit future campaigns as well.

Cochaired by Barbara Barrett, David Rubenstein, and Mr. Spoon, the campaign steering committee is large and includes representatives from the units and unit advisory boards. Mr. Spoon went on to describe the composition and work of the Campaign Steering Committee. The group has met three times. These meetings are opportunities for members to get to know and learn from each other. He commented that these meetings mark a cultural shift towards a Smithsonian-wide effort and noted that the Regents' support and engagement is important to these volunteers, their boards, and the units.

Each unit is developing its fundraising case. Mr. Spoon said he would circulate a summary of the single big issue, or "handle," each unit has developed. During the last Advancement Committee meeting, Under Secretary for Science Eva Pell and SAO Director Charles Alcock outlined an innovative approach that could be used to attract support for SAO's \$80 million fundraising efforts for the Giant Magellan Telescope (GMT). There were questions and discussion of this project. Mr. Spoon outlined the progress of NMAAHC's campaign, and he and the Secretary noted the contributions made by museum Council Chair Kenneth Chenault, Mr. Rubenstein, and Ms. Stonesifer.

Mr. Spoon reported it is planned and discussed that 100 percent unit advisory board member participation is expected by the end of the national campaign. Likewise, steering committee members, advisory board chairs, and unit advancement committee chairs have been informed that their commitments are expected by the October 2014 public campaign kickoff.

A challenge for the campaign, Mr. Spoon noted, is developing a pipeline of gifts of \$5 million or greater. The Secretary and the campaign team are aware that donors have

been generous to date, but that the Smithsonian's circle of "friends" must expand. He asked the Regents to be mindful of opportunities to connect potential donors with gift opportunities that will resonate with them.

Gift Actions

Director of Advancement and Philanthropic Giving Virginia Clark said fundraising for the national campaign is on track. She presented two gifts for the Board's approval and five gifts from foundations, individuals, and corporations for review. The latter did not require Board approval and reflect the wide range of gifts the Smithsonian receives. One of the two proposed gift actions was from a relatively new donor and the other was from a donor that has enjoyed a long-term philanthropic relationship with the Smithsonian. In response to a question from Dr. Jackson, Ms. Clark explained that the "in perpetuity" recognition for one of the gifts names a program endowment, not a facility. The two motions were approved en banc.

See attached Actions 2013.06.04–2013.06.05 (Minutes of the Board of Regents, Appendix A).

REPORT OF THE COMPENSATION AND HUMAN RESOURCES COMMITTEE

Compensation Update

Compensation and Human Resources Committee Chair Patricia Stonesifer reported on the May 6, 2013, committee meeting. She credited Office of Human Resources (OHR) Director Jim Douglas and OHR Associate Director Greg Bettwy for supporting the committee's efforts. The committee's first item of business, she said, was a discussion of the ongoing freeze on Federal salaries, which is now in its third year. The committee asked that the Regents recognize the progress that has been made with regard to Smithsonian staff and leadership, despite the salary freeze. Ms. Stonesifer noted that this progress demonstrates the effective leadership of Secretary Clough and his team.

The Secretary, who has the right to request that the committee grant certain salary exceptions, requested few exceptions during this three-year period. During its meeting, said Ms. Stonesifer, the committee discussed one possible salary exemption for lower-level Smithsonian Tropical Research Institute employees. The discussion was informed, she said, by information from the U.S. Department of State regarding appropriate adjustments to salaries. The committee asked for additional information, which will be considered at the committee's September 2013 meeting.

Reasonable Leave and Compensatory Time for Travel Policies

The committee also reviewed the Smithsonian's policies and staff recommendations regarding leave and compensatory time for travel. Pursuant to the Board's approval on March 1, 2013, the Secretary was moved to a reasonable leave system and his eligibility for compensatory time for travel was eliminated. The committee, said Ms. Stonesifer, agreed that the Secretary's Trust-level direct reports should remain on a leave accrual system but concurred that those employees' eligibility for compensatory time be eliminated in lieu of an alternate approach with flexible work schedules. The committee also agreed that the leave and compensatory time for travel policies for all Federal and other Trust senior-level employees should remain unchanged. The

committee's recommendations, said Ms. Stonesifer, were referred to the Governance and Nominating Committee for review and endorsement.

Workforce Diversity

The committee, said Ms. Stonesifer, also reviewed the diversity of the Smithsonian's workforce. She reported that little change has occurred in the demographics of the workforce over the last three years, which is largely attributed to hiring limitations during this period. Regardless, the committee agreed with the Secretary that the Smithsonian should focus on developing a pipeline of new employees and fellowship positions that better reflects the diversity of national demographics. This issue will be further examined at the fall 2013 committee meeting. Dr. Córdova cited the efforts of the Smithsonian Latino Center's Young Ambassadors Program, which supports the development of a diverse workforce by annually sponsoring about 20 young representatives of the next generation of Latino leaders in the arts, sciences, and humanities.

REPORT OF THE GOVERNANCE AND NOMINATING COMMITTEE

Governance and Nominating Committee Chair Roger Sant reported on the committee's May 29, 2013, meeting. Mr. Sant noted that there would be two committee reports, and that the afternoon executive session would include a committee-directed discussion of candidates to succeed himself and Ms. Stonesifer on the Board of Regents. This report, he said, would address four issues: appointments to Smithsonian advisory boards, amendments to the Smithsonian National Board (SNB) bylaws, documentation of the Regents' oversight of the Secretary's travel, and the leave and compensatory time for travel policies just discussed by Ms. Stonesifer.

Mr. Sant commented on the impressive slate of candidates who have volunteered to serve, if appointed, on four advisory boards. Four motions to appoint or reappoint advisory board members were approved en banc.

See attached Actions 2013.06.06–2013.06.09 (Minutes of the Board of Regents, Appendix A).

Mr. Sant and SNB Chair Sako Fisher agreed that the revisions to the SNB bylaws were essentially minor updates that include clarified language about SNB leadership terms and the renaming of a committee. The motion was approved.

See attached Action 2013.06.10 (Minutes of the Board of Regents, Appendix A).

In response to the Inspector General's request that the Board document its oversight of the Secretary's travel, Mr. Sant reported that the committee approved a formal documentation process for the Secretary's travel. He also noted that the committee endorsed the Compensation and Human Resources Committee's recommendations regarding the leave and compensatory time for travel policies discussed during that committee's report.

REPORT OF THE STRATEGIC PLANNING AND PROGRAMS COMMITTEE

Strategic Planning and Programs Committee Chair Shirley Ann Jackson presented the committee's report. The committee met on May 15, 2013. Dr. Jackson reported that a significant portion of this Regents' meeting agenda reflected presentations, discussions, and input from the committee meeting.

The committee conducted its regular review of the pan-institutional calendar for planned exhibitions. No exhibitions were reported to have potentially sensitive and/or controversial content. The committee also was updated on a conservation and research issue.

Dr. Jackson said Under Secretaries Kurin and Pell and Assistant Secretary for Education and Access Claudine Brown were invited to report to the committee on noteworthy initiatives in their subject areas. Topics discussed included the Hirshhorn "Bubble" project and the interpretation of a papyrus fragment that reportedly indicates that Jesus of Nazareth was married. The fragment, which is held in a private collection, is the subject of a proposed Smithsonian Channel documentary. The Smithsonian declined to air the documentary until further research is conducted on the fragment, which is allegedly from the 4th century AD. Dr. Kurin told the Board that, as of this date, the owner of the artifact has not agreed to have the papyrus or the ink tested.

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. She reported that a Folklife Festival preview concert of Hungarian music will be held in the Upper Senate Park, and thanked the six Congressional Regents for promoting the program by signing a "Dear Colleague" letter. Several briefings on the status of the NMAAHC construction project have been held with interested congressional offices. With the help of Representative Becerra, NMAH Director John Gray brought artifacts from the First Ladies collection to a meeting of a session of the Democratic Caucus. Ms. Payne noted that the event was well-received and that similar opportunities are desirable.

Conversations have been renewed with Representative Robert Aderholt (R-AL) regarding reviving the Philatelic Caucus, which was quite active in the past. Representative Aderholt has helped with the biannual stamp exhibition in the Rayburn House Office Building. She noted that representatives of the Congressional Native American Caucus visited the Cultural Resources Center to view Native American artifacts. Secretary Clough added that the spouses of many congressional Republicans recently toured the Museum Support Center in Suitland, Maryland.

Mr. Case asked about the status of the President's proposed Federal appropriations to the Smithsonian for STEM (science, technology, engineering, and mathematics) initiatives, including possible interagency funding consolidations. Ms. Payne reported that there is a fair amount of "pushback" from congressional members and

constituents invested in other Federal programs whose budgets could be reduced should the Smithsonian receive increased funding for its STEM initiatives. The Secretary added that the Smithsonian has made clear that it did not propose the possible redirection of STEM funding away from other agencies.

RESEARCH HIGHLIGHTS

Under Secretary Eva Pell discussed a research initiative recently launched by SERC. Sixty acres of Maryland farmland are being transformed into an experimental forest of 18,000 diverse seedlings to determine whether a biodiverse forest is more sustainable, can better support the species that inhabit it, and is more capable of filtering out pollutants and absorbing carbon. The long-term study will compare observations from the SERC forest (called BiodiversiTree) and from two experimental forests in Panama. The project also offers revenue-generating opportunities, as SERC will be able to sell forest mitigation credits and forest interior dwelling species (FIDS) credits.

Under Secretary for History, Art, and Culture Richard Kurin discussed research related to the NMAAHC's recent acquisition of a slave cabin built during the first half of the 19th century on Edisto Island, South Carolina. Smithsonian historians conducted research on the structure and its former inhabitants during its dismantlement. Oral histories were taken, including an interview with a resident who lived in one of the more than 25 identical buildings. The cabin will be on view in the *Slavery and Freedom* exhibition in the new museum.

LUNCHEON PRESENTATION: THE NATIONAL MUSEUM OF NATURAL HISTORY

Introduction and Background

Under Secretary Pell introduced the Regents' luncheon speaker, Sant Director of the National Museum of Natural History Kirk Johnson, who joined the museum in October 2012. Dr. Johnson previously served as the chief curator and vice president of research and collections at the Denver Museum of Nature & Science. A respected geologist and paleontologist, as well as a recognized communicator and author, the focus of Dr. Johnson's research includes the study of the geology and fossil plants of the Great Plains and Rocky Mountains from between 34 million to 145 million years ago, as well as the Cretaceous-Tertiary (K-T) boundary extinction event and the origin of major ecological communities known as biomes. His previous work has included numerous collaborations with the Smithsonian.

Dr. Johnson noted that his fascination with geology began when, as a 12-year-old boy, he discovered a fossilized crab in a rock. He then knew he would pursue a career in museums, discovery, and studies of the natural world.

The Denver Museum of Nature & Science is a large regional museum, said Dr. Johnson, and he participated in many collaborative research projects during his 22 years at the museum. Many major exhibits were built, including the Hall of the

History of Life on Earth, which opened in 1995. Dr. Johnson added that the world of paleontology is rapidly changing, noting that the known number of dinosaurs of the world doubled from the time of that exhibit's opening and the year 2005.

To protect its collections, the museum raised \$60 million and built a 126,000-square-foot addition that will open this fall. The visitor experience and the changing museum landscape of the 21st century also have been major priorities for the museum.

Many of the Denver Museum of Nature & Science's initiatives came together in the fall of 2010, said Dr. Johnson, when a 12-acre lake in Snowmass Village, Colorado, was drained to enlarge its holding capacity. The lake's basin revealed a significant trove of Ice Age fossils. The museum developed a 300-member corps of volunteers that included 42 scientists from 19 universities and four countries. The volunteers went into action and moved 8,000 tons of dirt by hand in 69 days. As many as 6,000 bones were discovered, including those of more than 50 mastodons and 12 mammoths, as well as the bones of giant bison, ground sloths, horses, and camels. After the La Brea Tar Pits, the site is now recognized as the second-most significant Ice Age site in North America.

During this time, live broadcasts from the site engaged the public and, later, the work was featured on NOVA and a book was written. The entire experience, said Dr. Johnson, demonstrates the power of a museum's ability to focus on its collections, support a strong core of scientists, collaborate with scientific partners, and communicate with the public.

Dr. Johnson noted that he was invited to give the keynote address at a 2012 meeting on the future of natural history museums, which was held at the National Museum of Natural History. There he expressed his view that natural history museums are about three things: audiences and the tools used to communicate with them, new knowledge and discovery, and the preservation of objects.

**The National Museum of
Natural History**

Dr. Johnson then reviewed his first eight months at the Smithsonian. The NMNH, he said, is the single largest natural history museum in the world. It has over 7.4 million physical visitors each year, more than 21 million digital visitors, and 127 million objects in its collections, which is about 90 percent of the Smithsonian's entire holdings. The museum possesses one of the strongest natural science teams in the world: its scientific staff includes 80 permanent curators and over 200 staff members with PhD degrees from various sources.

Dr. Johnson discussed the new exhibition *Genome: Unlocking Life's Code*, which was developed in collaboration with the National Institutes of Health's (NIH) Human Genome Research Institute. By combining the Smithsonian's work in biodiversity genomics and NIH's work on the human genome project, the exhibition addresses what is a genome and why a genome matters.

The NMNH audience, he said, is enormous. Between spring break and Labor Day, 45,000 to 60,000 people a day attend the museum. During the last week of March 2013, the museum saw 386,000 visitors. Most of these visitors are tourists, 15 percent of whom are international. Over a 10-year span, some 75 million people visit

the museum—a number that equals 20 percent of the nation’s population.

NMNH collections are vast in scope and internationally recognized. Dr. Johnson noted that Joseph Henry, the first Smithsonian Secretary, was a forward-thinking leader who advocated the support of science and learning more than the creation of museums, and considered the role of collections to be for the support of research. Collections, said Dr. Johnson, must be carefully planned with regard to intellectual scope, as well as managed. In addition to its historic collections of ethnographic, biological, and geological objects, the NMNH collections include cryogenetic samples that underpin genomic and biodiversity research. NMNH cold storage facilities can hold up to 4.5 million frozen tissue samples and, in April 2013, the museum opened a 120-bench analytical biology laboratory to support in-house genomic research.

Dr. Johnson discussed the scientists who conduct NMNH research. He noted that he spends one hour each working day with a NMNH scientist, and presented examples of some of their work. Each NMNH scientist, he said, publishes at least three scientific papers each year. Cumulatively, the 81 scientific curators on staff have published over 9,000 papers to date and their work has received some 219,000 citations. Over the last century, said Dr. Johnson, NMNH scientists have published over 42,000 scientific papers. He also emphasized the value of having great scientists with strong communication skills.

The museum’s facilities were then discussed. The Mall facility, a 1.3 million-square-foot building that was built in 1910, is about 50 percent renovated. The NMNH holdings also include the Museum Support Center in Suitland, Maryland. Together, the two facilities host 39 different Smithsonian-affiliated organizations. All of the objects in the NMNH collections are housed in the facilities’ combined total of 2.1 million square feet of space.

Dr. Johnson reported that there are about 10 big natural history museums in the United States, and about 12 others throughout the world. Collectively, these museums preserve, study, and interpret the natural world. Dr. Johnson reported that he visited the primary American natural history museums since his arrival at the museum. He then organized the first-ever meeting of directors of the top 10 natural history museums; the meeting was held two weeks prior to this Regents’ meeting. The directors discussed the common challenges natural history museums face, as well as the potential for “wiring together” their efforts in an increasingly digital world.

Dr. Johnson then discussed the key initiatives the museum will focus on in the near future. The Smithsonian, he said, is well-positioned to contribute to the global genome initiative and the genomics of biodiversity. The NMNH Q&rius Center, which will blend museum visitors, scientists, and collections in an environment that supports learning opportunities, will open in November 2013. The Encyclopedia of Life (EOL), a coalition of many organizations, now has over 1.3 million species pages on the web. EOL’s full potential, Dr. Johnson noted, is just beginning to be understood. The launch of the Tennenbaum Marine Observatories will present many opportunities for the marine science staff at the NMNH. In early 2014, the museum will commence the complete renovation of the first floor of the museum’s East Wing (which first opened as the Hall of Extinct Monsters in 1911). A new exhibit about the history of life on

Earth, informally known as *Deep Time*, will open in 2019.

The presentation closed with an image of a young boy who visited the museum during Dr. Johnson's first few days in his new position. The four-year-old child, he said, donated a hand-decorated box holding \$270 dollars to support the creation of the *Deep Time* exhibit, making him the second donor to the new exhibition. (The first donor was industrialist and philanthropist David H. Koch, who gave \$35 million for the renovation of the space.) The future of the museum is strong, Dr. Johnson said, because of its incredible visitation, scientists, and collections.

Dr. Pell thanked Dr. Johnson for his presentation, and the Board concurred with a round of applause.

AFTERNOON SESSION

The Chancellor called the afternoon session to order at 12:52 p.m.

SERIOUSLY AMAZING: DETERMINING EXOPLANETS' MASS USING KEPLER DATA

Under Secretary Eva Pell introduced the meeting's "Seriously Amazing" presentation. Dr. Pell spoke of SAO's contributions to the discovery and characterization of exoplanets. She then introduced SAO Senior Astrophysicist and Associate Director for the Theoretical Astrophysics Division Matthew Holman. Dr. Holman discussed how analysis of data from the Kepler space observatory is supporting scientists' efforts to identify Earth-like planets that possess certain characteristics—the "Goldilocks" zone—that could potentially host life.

Dr. Holman explained how scientists' understanding of planets over the past 20 years has expanded far beyond Earth's solar system to the discovery of thousands of planets orbiting other stars. Scientists continue to discover increasingly smaller planets, planets with larger orbits, and planets with masses similar to that of the Earth. These discoveries, he said, inspire the imagination; inform our understanding of the formation of planets and their basic characteristics; and fuel questions about whether or not planets comparable to the Earth exist in the universe.

Dr. Holman discussed two basic techniques for discovering and characterizing extrasolar planets—the radial-velocity method and the transit method—and also commented on his development of a transit-timing variation method. The collection of data using the transit method, he said, accelerated with the launch of Kepler telescope, which he characterized as a "giant digital camera." Although it is in the last stages of its usable life, the Kepler telescope has focused on about 150,000 stars for about four years and generated an unprecedented data set. SAO scientists, said Dr. Holman, have been key contributors to Kepler's efforts to find earth-like planets that orbit other stars.

The next NASA-selected mission will be the Transiting Exoplanet Survey Satellite, or TESS, which will launch in the next four years. Whereas the Kepler telescope monitored one area of the sky, TESS will monitor the full sky; it will detect planets orbiting brighter stars and permit measurements of the atmospheres of those planets. In addition, Dr. Holman discussed the anticipated contributions of the GMT and compared the capabilities of ground-based telescopes and space-based observatories.

In response to a comment by Mr. McCarter, Dr. Holman discussed the "Goldilocks" zone and the working definition of "habitable." Exoplanets in the "Goldilocks" zone, he said, are comparable in size to the Earth and possess similar orbits. These characteristics increase the possibility that such planets may have liquid water, which

is critical to biology as it is currently understood. The atmosphere of a planet, Dr. Holman said, also plays a critical role in its ability to host liquid water. Spectrographic analysis helps distinguish the light of a star from that of a planet, and as well as help determine diagnostically the composition of a planet's atmosphere.

Mr. Rubenstein asked about the closest proximity of a potentially habitable planet. Dr. Holman said that a small M dwarf star within about 50 light years may have a habitable planet in its orbit.

Secretary Clough noted the ability of the Smithsonian to support both life science research and astrophysical studies. Dr. Córdova added that the search for and identification of life elsewhere in the universe is "truly an interdisciplinary question."

DISSEMINATING SMITHSONIAN RESEARCH

Overview

Director of Communications and External Affairs Evelyn Lieberman briefed the Regents on the many ways her office and the units' public affairs departments effectively disseminate Smithsonian research to the general public and targeted audiences.

The Smithsonian's top-tier research, museums, programs, and communications, said Mrs. Lieberman, are integrally linked. Exhibitions, public programs, scholarship, and educational materials are the primary vehicles for disseminating Smithsonian scholarship. The Smithsonian's communications teams spread these messages further, working to increase the number of audiences who receive it and make the biggest possible impact. This responsibility is shared by the central Office of Communications and External Affairs and the public affairs staff of individual units. Platforms include digital media (websites and social media accounts); earned media (news releases, media outreach, and press conferences); owned media (Smithsonian Channel, *Smithsonian* magazine, and www.smithsonian.com); and congressional outreach.

Communications are not static, said Mrs. Lieberman, and so the Smithsonian continuously updates and shifts its tactics to reach out to and engage new audiences. Central communications staff develop and implement pan-institutional communications strategies to highlight stories that showcase the strengths of the Smithsonian brand. The public affairs staff of the Smithsonian's museums, research centers, and public programs promote unit-specific content to drive key unit objectives, including visitation, awareness, and support.

Promoting Smithsonian Research Through Digital Platforms

Although smithsonian.org (www.si.edu) is often used by people planning visits to the Smithsonian, the website takes advantage of these web visits to promote the Smithsonian's research. Mrs. Lieberman noted that the homepage banner and navigation bar both emphasize and direct visitors to Smithsonian science and research. Other digital platforms that disseminate Smithsonian scholarship include seriouslyamazing.com; social media accounts; a Smithsonian YouTube channel; mobile apps; and an online newsroom. As previously noted by the Secretary, the

American Association of School Libraries (AASL) recognized seriouslyamazing.com as one of the best websites for teaching and learning. AASL, she said, will promote the site to school libraries and educators throughout the year. Mrs. Lieberman also noted that a new wave of brand marketing will launch in fall 2013 using digital, mobile, and social media advertising to promote the Smithsonian’s research and other offerings.

The Smithsonian’s target audiences, and in particular the “Millennials,” are especially active in social media and drawn to visuals. The Smithsonian uses about 15 social media platforms to reach these audiences; it also has over 500 social media accounts and 300 blogs for sharing the Smithsonian’s research. Videos bring research to life, and the Smithsonian’s YouTube channel promotes behind-the-scenes views of Smithsonian researchers at work in the lab and in the field. Mrs. Lieberman noted that support from Regent Emeritus Alan Spoon has advanced the production of these videos. The new augmented reality feature of the Smithsonian’s mobile app supports virtual museum tours that engage viewers’ curiosity and provide information about the research that underpins museum exhibits.

The online newsroom also encourages new discoveries by traditional media users, researchers, and bloggers. Breaking news, such as earthquakes, meteorites, volcanic eruptions, or oil spills, provide opportunities to draw attention to the Smithsonian’s expertise. Mrs. Lieberman noted that four Smithsonian researchers were part of the news coverage regarding the recent meteor strike in Russia. In addition to press conferences about breaking news, the Smithsonian invites journalists to quarterly behind-the-scenes media briefings. In addition, stories are pitched to individual journalists known to possess a particular interest. The addition of a bilingual public affairs officer already has enabled the Smithsonian to reach new audiences.

Promoting Smithsonian Research through Traditional Platforms

The Smithsonian also starts or joins in on “conversations” of global importance. To emphasize the Smithsonian’s relevance, public affairs staff will promote two themes—innovation and global change—in the coming year. These themes emphasize the Smithsonian’s relevance.

In addition to “earned” media, the Smithsonian uses “owned” media to broaden access to its research. The Smithsonian Channel, *Smithsonian* magazine, and smithsonian.com play important roles in disseminating research. The Office of External Affairs and Communications is increasing its collaborations with SE to better utilize their talents and reach.

The Office of Government Relations also promotes Smithsonian research and new discoveries. Congressional newsletters and updates on Smithsonian science are sent to targeted members of Congress and their staff; behind-the-scenes tours and offers of expertise also are extended to the Congress.

Measuring Success

A variety of methods are used to measure the progress of disseminating Smithsonian research. Website usage is tracked to learn from which devices, browsers and locations users originate; social media offerings also are monitored and modified through a variety of tools. A monitoring service tracks the depth and reach of the Smithsonian’s regular coverage, such as in media mentions and clips.

Mrs. Lieberman reminded the Board that market research conducted prior to the launch of the branding campaign revealed that the Smithsonian's research capabilities were not widely known. After the launch of the branding campaign, surveys showed a slight increase in people's awareness, understanding, and interest in the Smithsonian. Studies also showed that presenting the information in fun and surprising ways enhances viewers' engagement. A market research firm, she said, is being hired to track brand awareness on a semi-annual basis. The information from these surveys will help the Smithsonian continue to learn about how it is perceived and what communications strategies are working.

Discussion

Ms. Stonesifer praised Dr. Pell and Mrs. Lieberman's contributions to efforts to assess, improve, and share Smithsonian research. Mrs. Lieberman noted that the homepage banner and navigation bar both emphasize and direct visitors to Smithsonian science and research. Noting that smithsonian.com is the primary portal through which viewers access individual unit websites, Senator Leahy commented on the importance of updating those websites. He also noted the fundraising potential of websites.

The Secretary noted that more people visit wikipedia.com, not smithsonian.com, to learn about the Smithsonian. A "wikipedian-in-residence," he said, is helping staff learn about and manage what people are learning about the Smithsonian.

Ms. Fisher asked about opportunities to leverage efforts throughout the Institution in order to achieve greater impact. One example of a well-leveraged opportunity, said Mrs. Lieberman, was a recent effort to brand the Smithsonian's multifaceted conservation biology initiatives. At least four science units collaborated on the effort, which attracted the attention of SE President Chris Liedel, who offered to provide support for the initiative. Mr. Spoon noted that such centers of excellence can enhance fundraising opportunities.

In closing, Mrs. Lieberman noted that the Smithsonian has more than 3 million social media followers and almost 40 million views of its YouTube videos. In addition, the Smithsonian's 500 websites and blogs have received more than 100 million unique visitors this fiscal year. This number, she said, is on track to be a 33 percent increase over fiscal year 2012 visits.

STRATEGIC PLAN FOCUS: EDUCATION AND ACCESS

Overview

Assistant Secretary for Education and Access Claudine Brown provided a progress report on major education and access initiatives. She first introduced Smithsonian Center for Learning and Digital Access (SCLDA) Director Stephanie Norby, who manages Smithsonian-wide museum educational programs for teachers and museum professionals; Smithsonian Science Education Center (SSEC) Educational Technology Specialist Margaret Chmiel, who is responsible for the SSEC digital strategy; National Zoological Park (NZP) Research Scientist Peter Marra, who launched the citizen science initiative "Neighborhood Nestwatch"; and Office of the Assistant Secretary for Education and Access Senior Technology Manager Peter Haydock, who developed the MySI platform.

Ms. Brown began her presentation by posing two questions. The first question was “What would it require for each American student to have the tools, resources, and experiences to help him or her become an actively engaged citizen of their community, the United States, and the world?” The second was “How can we create a culture of learning where we excite, engage, and exchange information so that we are continuously learning together?”

The Smithsonian has a long history in hands-on education, she said, and is prepared to be a serious participant in the world of active engagement learning experiences. This engagement takes place in museum galleries, online, and in a variety of digital formats. Active engagement, said Ms. Brown, connects learners to real-world experiences, imparts problem-solving tools, promotes collaboration, and links information to personal interests and experiences, encouraging individuals to engage in responsible actions.

Three Pan-Institutional Initiatives

Ms. Brown reminded the Board that it previously approved two pan-institutional initiatives: “Our American Journeys” (previously known as “Americans All”), which considers the American experience of immigration and migration, and “Waterways,” which explores the role rivers and streams play in urban life; it also reviewed the MySI platform for delivering educational content. Ms. Brown explained that she and her colleagues would examine the Smithsonian’s progress in cultivating active participatory learning through the lens of the two initiatives, a third called “Creativity and Innovation,” and the MySI platform. She noted that the MySI platform organizes pan-institutional content, creates and highlights opportunities for active learning, provides for the collection of metrics, and allows the Smithsonian to learn from its audiences so that it can continue to refine its offerings.

“Our American Journeys” was first discussed. The initiative is based on the theory that everyone in this country arrived through one of three ways: forced migration, voluntary migration, or through the incorporation of the land on which they live. Each group, she said, seeks a new or better way of life, has contributed to American society, and affirms our common history. Ms. Brown presented three MySI websites that support the “Our American Journeys” initiative: “Preparing for the Oath,” which prepares potential citizens and students by linking the citizenship exam questions to Smithsonian content; “Driving through Time,” an online, time-travelling game that contextualizes journeys through America; and “Agricultural Innovation and Heritage,” an online, collaborative repository that supports the collection and preservation of the history of modern agriculture through personal stories.

“Creativity and Innovation” is a key focus for three Smithsonian museums. Cooper-Hewitt, National Design Museum (CHNDM) is a leader in the area of design thinking, NMAH’s Lemelson Center advances invention and innovation, and the NASM helps the public know about the many air and space industry-based innovations that consumers enjoy. Ms. Brown presented “Ready, Set, Design!,” CHNDM’s adaptable design challenge that supports collaborative and creative thinking. The Regents then viewed NASM’s interactive website “How Do Things Fly?,” which Ms. Brown said provides an effective template for supporting museum exhibitions and educating people who cannot physically visit the Smithsonian. The Lemelson Center, she said,

has twice partnered with ePals on “Invent It!,” an invention competition that challenges students to create, invent, and then promote their ideas.

“Waterways,” said Ms. Brown, is another Smithsonian initiative that has research and programmatic content from across the Smithsonian. CHNDM’s exhibition *Design for the Other 90%* sparked a number of initiatives, including the game “Get H₂O,” which challenges students virtually, to find and sustain water in slums across the world. Ms. Brown also reported that the Smithsonian has been partnering with a number of Federal agencies that have a lot of data that is difficult for teachers to access and use. She cited a partnership with the Environmental Protection Agency to refine a mobile app that provides data on water quality in waterways across the country, as well as information about ways to become a better steward of these environments.

Exemplars

Ms. Norby discussed SCLDA’s efforts to create ways for the public to interact with Smithsonian experts and collections. Since 2007, SCLDA has hosted a number of online conferences that engage participants with Smithsonian researchers and encourage activities designed to make a positive difference. Between 2011 and 2012, for example, representatives from multiple Smithsonian units participated in online conferences about why water matters. Such sessions, said Ms. Norby, are evaluated through online surveys and focus groups. Through these surveys, she said, educators made clear that they wanted more information about what students can do about a particular issue. In response, SCLDA developed “Smithsonian Quests,” whereby digital badges can be earned by completing specific challenges. The digital badging program is now available in all 50 states and in 53 countries.

Ms. Chmiel discussed SSEC’s work with national and international schools and school districts to support systemic, sustainable change in science education. Most K–12 teachers, she said, do not have sufficient training to support inquiry-based science. The SSEC, she said, has promoted learning through active engagement for the past 30 years. She cited week-long teacher-training sessions that have reached about 9,000 teachers and stakeholders in New Mexico, North Carolina, and Houston, Texas. A MySI-powered website was recently launched that allows SSEC to disseminate information on a wider, user-friendly platform. The site has a translation tool, is mobile-friendly, and connects teachers to the Smithsonian’s STEM resources and STEM education news. Traffic on the SSEC website, noted Ms. Chmiel, increased 400 percent over 30 days with the new MySI-powered tools. Next steps include the creation of a digital library that supports the active engagement of students and teachers after school.

Dr. Marra discussed research conducted by NZP and the Smithsonian Conservation Biology Institute’s Migratory Bird Center. Over 50 percent of the nation’s landscape, he said, has become human-dominated, and the frontier of migratory bird studies lies in urban areas where people and nature interact on a day-to-day basis. Because this interaction offers the opportunity to engage people in citizen science, Dr. Marra decided to create “Neighborhood Nestwatch.” The program examines the impact of urbanization on wildlife populations and teaches the public about the importance of science and the impact of urbanization. The program sends Smithsonian scientists to neighborhood backyards, bands birds, and teaches residents how to monitor their

behavior. Because many birds migrate great distances, the program provides links between diverse neighborhoods in, for example, Washington, D.C., and Belize. The success of the program is reflected in a 90 percent increase in participants' scientific literacy, and 56 program participants made environmental improvements to support the birds' habitats. The citizen scientists also provide excellent data. The program's next steps include the launch of school "Urban Nestwatch" programs designed to capture the attention of students and cultivate the next generation of citizen scientists.

Ms. Brown emphasized that the goal of Smithsonian education is to support active engagement. Smithsonian education initiatives are designed to inspire learning and encourage meaningful activity, as well as support the submission of data by participants. "Our American Journeys," she said, encourages people to become active citizens; "Waterways" asks people to be effective stewards of the planet; and "Creativity and Innovation" offers problem-solving methodologies. Smithsonian education, said Ms. Brown, aspires to empower young people by teaching them skills that they can apply to other areas of their lives.

Discussion

Mr. Spoon said that making the Smithsonian's educational resources available to other educational platforms would effectively express and support the Institution's mission, as well as expand its exposure. With regard to "Urban Nestwatch," he encouraged the cultivation of corporate support to help create and support networks of young citizen scientists.

STRATEGIC PLAN FOCUS: THE SMITHSONIAN'S DIGITAL ENTERPRISE

Overview

The development of the Smithsonian's digital enterprise, said Secretary Clough, has been a key priority since he began his tenure. He reported that the Smithsonian has experimented with different approaches over the last three to four years, and it has achieved some notable successes.

The Secretary cited key dates over the past year in the Smithsonian's "digital discussion." An update on digital initiatives was provided to the Board at its October 2012 meeting. During the Secretary's retreat with all directors that same month, participants agreed that greater coordination and focus were needed for the Smithsonian to achieve more significant impact and global recognition in the use of digital technology. In December 2012, an internal executive committee was created to improve coordination of digital activities; an external advisory group also was established. Another update was provided to the Board at its January 2013 meeting. The external advisors then visited in February 2013, and the Strategic Planning and Programs Committee discussed the initiative during its May 2013 meeting. The Secretary noted that, in addition to this update to the Board, he would discuss digital matters at the July 2013 directors' retreat and then as part of the Board's October 2013 strategic plan discussion.

The purpose of this presentation, said the Secretary, would be to review the actions taken to date and to present a forward-looking roadmap that will support the

development of a digital Smithsonian. Actions taken thus far include assessing the digital landscape, which is constantly evolving; establishing priorities; evaluating progress; and identifying initiatives. He noted that he was writing an e-book as a result of efforts to analyze the digital landscape. The *Best of Both Worlds: Museums, Libraries, and Archives in a Digital Age*, to be published by the Smithsonian in July 2013, will include reviews of current Smithsonian digital initiatives and interviews with outside museums, libraries, and archives about their digital activities.

Secretary Clough outlined priorities that were established to support the framework for a digital Smithsonian:

- enhancing the in-person visitor experience
- digitizing the collections
- making digital content easy to find and use
- accelerating content delivery through partnerships and collaborations
- sparking engagement and participation

The Secretary said his discussion of priorities would include Smithsonian exemplars, emerging capabilities, challenges, and initiatives.

Enhancing the In-Person Visitor Experience

To enhance in-person experiences using digital technology, museums can incorporate new technology into the design of new facilities, add it to older buildings, apply it to exhibitions, and implement experience-changing technologies. The Secretary noted the challenge of incorporating new technology into older facilities and cited the CHNDM renovation, the launch of NMNH's Q?rius lab, and the planned application of digital technology in the Arts and Industries Building as successful examples of retrofitting older facilities. NMAAHC, he said, reflects the opportunities presented when planning for digital technology in the design and construction of a new building. Mobile technology and new exhibitions also present opportunities for effective digital engagement before, during, and after visits to museums and exhibitions. The Secretary cited three successful mobile apps: the NMAI's Infinity of Nations app, the SI Tour app, and the Smithsonian app. He also commented on the SAAM exhibition *The Art of Video Games* and presented a video clip of an augmented reality technology "Appshaker" that Smithsonian Enterprises has identified.

The Secretary cited the age of many Smithsonian facilities and the volume of visitors as challenges to the Institution's ability to take full advantage of technologies that might enhance the visitor experience. In addition, he noted the unevenness in units' approaches to shaping the visitor experience. Going forward, said the Secretary, WiFi and positioning technology must be fully implemented in each museum; all new construction and renovation projects must incorporate digital technology from the ground up; digital experiences (before, during, and after the visit) must be incorporated into exhibition planning; and experience-changing technologies must be assessed for possible application across multiple museums.

Digitizing the Collections

The Secretary stressed that digitizing the Smithsonian's collections is the foundation of the Institution's digital future. He noted the significant challenges the Smithsonian faces in this area because of the quantity, size, and variability of the national collections. He highlighted the Biodiversity Heritage Library (BHL) as an exemplar

digitization project. Fifteen partner organizations have digitized their biodiversity literature. Over 113,700 volumes of illustrated biodiversity literature, including such seminal pieces as Darwin's field books, have been digitized and loaded onto the BHL website. The Smithsonian, said the Secretary, is a leader in 3D digitization efforts, and he cited the forthcoming Smithsonian Charter Collection as another exemplar. The Smithsonian Charter Collection, which will launch in fall 2013, will provide unparalleled access to iconic objects in the national collections. The technology will support the Smithsonian's educational programs, among other things, by producing 3D image files that can be used to replicate objects that in turn can be studied outside of the museums.

The Secretary went on to highlight units' impressive pursuit of alternative funding sources for digitization. Examples include Smithsonian Folkways Recordings' revenue-generating sale of 3,000 digitized albums and 45,000 tracks in its collections; Cengage Gale's digitization of *Smithsonian* and *Air & Space* magazines; and the Archives of American Art's securing of more than \$6 million from the Terra Foundation for the digitization of letter and papers of important artists.

Getting donor support, emphasized the Secretary, is critical to the successful digitization of the national collections. He said that the Smithsonian is working to "package" collections creatively to attract donor support. Also important to the success of the initiative is the application of emerging automated capabilities, such as robotics.

The primary challenge to digitization of the collections is time. Based on current work flows, it could take 37 years to create digital surrogates of priority items in the collections, and 56 years to complete digital records of the entire collections. In addition, there is not sufficient network capacity to handle the increased demands of such a large-scale digitization effort.

Looking forward, the Secretary said prioritization of effort is key, and the requirements and opportunities presented by particular collections must be considered. Additional support through partnerships and volunteers must be cultivated, and innovative solutions to scale digitization efforts will be explored. Finally, he said, the core Smithsonian network must be significantly upgraded to support collections digitization and the other functions of the "Digital SI."

**Making Digital Content
Easy to Find and Use
and
Accelerating Content
Delivery through
Partnerships and
Collaborations**

Making digital content easy to find and use is another key priority. The Secretary cited the NMAfA and CHNDM's websites and the NPG's Presidents App as exemplars of accessible, functional digital initiatives. Partnerships and collaborations, he said, also are critical to advancing digital initiatives. Productive partnerships were cited, including EOL, the Biodiversity Heritage Library, and the linked open data (LOD) initiative of the American Art Collaborative, of which SAAM is a leading member, with support from the University of Southern California.

Key challenges to ensuring that Smithsonian digital content is easy to find and use include the lack of consistency in unit approaches, the needs of different audiences, and the limited capabilities of the central "Collections Search Center." The

Smithsonian, said the Secretary, must upgrade its main search portal, as well as the search engines of each unit. Unit approaches must be harmonized, and all units must contribute to the main system. The search capabilities of different Smithsonian offerings must be assessed and industry expertise must be solicited.

Sparking Engagement and Participation

Sparking engagement and participation was one more priority highlighted by the Secretary. Successful exemplars include SAO's website, Smithsonian.com, and the LeafSnap and Meanderthal apps. Websites can be passive, said the Secretary, and he noted that SE has done an excellent job of driving traffic to its website. The Smithsonian has an abundance of social media, crowdsourcing, and interactive tools. The Secretary cited the global use of SAO's digital telescope site, Tweets of NZP's panda insemination, and the arrival of the space shuttle *Discovery* as successful examples of the Smithsonian's ability to spark engagement and participation. Emerging capabilities include MySI tools, reaching new education audiences through Internet2, and an increased focus on managing the Smithsonian's Wikipedia presence.

Challenges to these efforts include balancing innovation and experimentation with the need for both coherence and economy; understanding the needs and desires of diverse audiences; defining the Smithsonian's role in the world of massive open online courses, or MOOCs; and providing the public with clear directions on the ways it can participate in the Smithsonian's work.

The Secretary identified initiatives being undertaken to address these challenges, including managing the Smithsonian's digital brand; expanding and coordinating efforts to better understand audiences; pursuing MOOC opportunities that align with Smithsonian capabilities; and building a pan-institutional crowdsourcing platform that can enlist digital volunteers. The Secretary presented an image of the Smithsonian's first digital volunteer center website, noting that thousands of digital volunteers will be needed to help digitize collections; support research; identify, translate, and tag materials; and share knowledge.

Next Steps

Going forward, the Smithsonian must have a structure to successfully implement key digital initiatives. Project "owners" must be designated; specific funding, staffing, technology, partnership, and metric requirements must be outlined; the Presidential Innovation Fellows must be assigned to specific projects; and a digital innovation and services hub ("The DISH") must be created. A robust approach to digital fundraising also must be developed.

The Secretary said that he would report on the plan's next steps at the October 2013 Board meeting. Dr. Córdova commended the Secretary on his report, as well as the e-book, and the Board concurred with a round of applause.

Discussion

Mr. Sant asked how the Smithsonian prioritizes which objects to digitize. The Secretary responded that, because the Smithsonian's audiences are broad in scope and interest, digitization supports different needs. He added that digitization helps inventory the collections, as well as protect them by reducing the handling of objects.

Dr. Jackson expressed her enthusiasm for the initiative, and especially her interest in augmented reality applications. She asked if there is a digitization strategic plan that

overlays the Smithsonian's strategic plan, and in particular its educational initiatives. An especially important question, she said, is if the Smithsonian has identified which audiences it wants to reach using digital technology, and how it wants to do so. These questions, she said, present opportunities to "narrate the efficiency" of digitization. She emphasized that reaching young audiences is a key priority, but noted that some 80 percent of students lack broadband access, and that the costs of certain technologies and subscription programming are beyond their means. Digitization, said Dr. Jackson, is a powerful platform but accessibility issues must be addressed to realize its potential. She added that MOOCs currently face a degree of criticism, as well as demand a financial investment.

The Secretary responded that the digital world is evolving so rapidly that the original strategic plan for the Smithsonian's digital enterprise is already out of date in some respects. With regard to access, he said that the Smithsonian is looking at different levels of access. Although individuals are the primary focus of the digital initiative, school districts may be the first target group in digital education efforts. Enthusiasts, he added, are a key target, and it is hoped that some enthusiasts will in turn volunteer their time to help advance the initiative.

Dr. Jackson added that the use of scalable packaged online courses, or SPOCs, could be explored. The Secretary noted that several universities have contacted the Smithsonian regarding the development of online courses. The Smithsonian, he said, is carefully exploring such options.

Mr. Spoon commented on the rapid development of online education opportunities. It is important, he said, that the Smithsonian participate in these new avenues for learning and relating. He added that the Smithsonian's educational programming is of a larger scale than any of its peer organizations.

Ms. Stonesifer commented on the quantity and quality of the Smithsonian's current digital initiatives, but said that she found the offerings difficult to navigate. The Smithsonian, she said, must invest in digital "wayfinding" or little benefit will result from these efforts. Secretary Clough agreed that the visibility and accessibility of the Smithsonian's websites must be rethought. The amount of information held by the Smithsonian, he said, is overwhelming. The Presidential Innovation Fellows recently assigned to the Smithsonian, he said, will specifically consider this issue.

Mr. Kogod suggested that, in order to thoughtfully develop the digital initiative, the Smithsonian might consider slowing down the pace of its efforts. The Secretary responded that there is in fact a "race" in this arena, and said that the Smithsonian must accelerate its efforts. Dr. Córdova asked who has oversight of the digital initiative. Secretary Clough said that Ms. Abrams, among her other responsibilities, currently oversees the key digital initiatives. At some point, he said, a full-time professional may be hired to manage the Smithsonian's digital enterprise.

Mr. Spoon said that the Smithsonian's education and outreach efforts would benefit from Dr. Jackson's advice regarding articulating an overarching strategic description that identifies targeted audiences and outcomes, and the metrics by which to measure efforts. He also commented that many websites can be derived from, and

efficiently run by, a common architecture. Ms. Stonesifer said that the Smithsonian must determine the areas where it wants to offer “boutique” versus “supermarket” content. The Secretary said the Smithsonian is planning some industry days for the digital initiative. Mr. Spoon added that the “DISH” concept will provide powerful organizational support.

The Board then adjourned for an executive session at 3:20 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 JUNE 24, 2013, MEETING OF THE BOARD OF REGENTS

VOTED that the Board of Regents approves the minutes of the April 29, 2013, meeting of the Board of Regents. [2013.06.03]

VOTED that the Board of Regents recognizes the generosity of the Thomas W. Haas Foundation to the National Air and Space Museum and names the Phoebe Waterman Haas Public Observatory in perpetuity. [2013.06.04]

VOTED that the Board of Regents recognizes the generosity of S.C. Johnson & Son, Inc. to the National Museum of American History and names the SC Johnson Conference Center for 20 years. [2013.06.05]

VOTED that the Board of Regents appoints Ann B. Friedman and reappoints Edgar M. Cullman Jr. and Robert MacDonald to the Smithsonian National Board for three-year terms effective October 1, 2013. [2013.06.06]

VOTED that the Board of Regents reappoints Helen I. Jessup to the Board of Trustees of the Archives of American Art for a three-year term effective immediately and reappoints Judith Jones, Gilbert H. Kinney, Nicholas Lowry, and Ellen Phelan for three-year terms effective September 21, 2013. [2013.06.07]

VOTED that the Board of Regents reappoints Eric A. Green, Richard Meier, and David Rockwell to the Board of Trustees of Cooper-Hewitt, National Design Museum for three-year terms effective immediately. [2013.06.08]

VOTED that the Board of Regents appoints Maureen Kim to the Commission of the Smithsonian American Art Museum for a four-year term effective immediately and reappoints Judah Best, Dorothy Tapper Goldman, and Michael I. Wilkins for four-year terms effective July 1, 2013. [2013.06.09]

VOTED that the Board of Regents approves the proposed amendments to the bylaws of the Smithsonian National Board. [2013.06.10]