

Newsletter

of the History of Science Society

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"Quito and the Sun" (ISWI) on page 26

FROM THE HSS EDITORIAL OFFICE

H. Floris Cohen, HSS Editor

One hundred years ago, Germany invaded Belgium and George Sarton, together with his wife, his daughter, and his fledgling journal *Isis* left his home town of Ghent. He went to England first and then settled in the United States for good. Today, as you are reading these words, the journal that Sarton edited for forty years is, likewise on board ship, crossing the Atlantic in the opposite direction. Its destination is not Belgium but the Netherlands—the northern one of the two nations that inhabit what is widely known as the Low Countries.

In the first week of my editorship, which started on July 1, we have been setting up shop at the new *Isis* office at Utrecht University. Our office occupies two adjacent rooms, which in turn adjoin the two rooms that house the Descartes Center for the History and Philosophy of the Sciences and the Humanities—*Isis*' host institution for the next five years. Our office is located at the center of the heart of the city of Utrecht. I need only look out of my office on to the street to see the limes, the very frontier of the Roman Empire, now engraved in metal in the sidewalk. I need only lift my gaze to watch the Dom Tower, completed in 1382 and 112 meters high (367 feet). I need only walk for perhaps half a minute to the large University Hall where Descartes' teachings were officially banned in 1642 and where, in 1713, the Peace was concluded that ended the Europe-wide War

of the Spanish Succession. Deep history, in short, is all around us at the Dom Square, where on the first of July the moving van made its appearance.

To get to this point where my brand-new office staff and I are actually unloading what Bernie Lightman, Ian Slater, and the other helpful officers at York University had been packing a couple of weeks earlier, a great deal of preparation has obviously been necessary. Hardly any of the preparatory steps that I shall be listing below would have been possible but for my predecessor's firm decision to contribute all he possibly could to a seamless transition. Bernie, I have said it before, I shall keep saying it on future occasions, and I insist on saying it here all over again: Thank you so much for preparing me for the job in every conceivable manner, with kindness, alertness, and in a truly cooperative spirit! You have set an example that I can only hope to emulate five years from now.

Take, first, all those instructive conversations that I had the pleasure of conducting in the course of the November 2013 annual meeting in Boston. After two days of intensive sessions with the HSS Executive Committee I met with the *Isis* Advisory Editorial Board over the annual dinner; I attended the annual session of the Committee on Publications and talked with each of its members individually; I attended the annual Council

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meeting; I met with Joan Vandegrift, our manuscript editor, and with Tess Mullen, who sees to all *Isis* matters at the Journals Division of the University of Chicago Press. I also made the acquaintance of Andrea Rusnock, the editor of *Osiris*, and of Stephen Weldon, the editor of the *Current Bibliography*.

Right after the Boston annual meeting the two new book review editors, Prof. Eric Jorink and Dr. Ad Maas, joined me on a one-and-a-half-day visit to the York office. By mid-May the new managing editor, Desiree Capel MA MSc, experienced the same hospitality and the same willingness to share with us the tricks of the trade.

I have further arranged for a group of youngsters to gather around the journal. In view of Sarton's near-obsession with Egyptian deities, I have given the group the name of Horus, son of Isis and Osiris. At present the group counts a dozen members, mostly students in the MA program of history and philosophy of the sciences and the humanities that is being run by the Descartes Center, but also with some former students of ours who are now PhD students at other universities in the Low Countries. In late April, as part of our preparation, we jointly discussed good and not-so-good ways to review scholarly books in the history of science, using an actual example. Our three office assistants come from this group. The new *Isis* staff and I intend to meet with Horus on a regular basis so as to give these promising youngsters a real-world idea of

what is involved in running a leading scholarly journal (something I am at present still rather curious about, myself!). And of course the Horus membership list will be refreshed from time to time as present members pursue their careers, be it inside or outside the history of science.

And because *Isis* is an international journal, I have traveled to Berlin to discuss with Jürgen Renn and others at the Max Planck Institute for the History of Science what, from their perspective, the coming of *Isis* to Europe for five years may mean for history of science in Europe. I intend to make similar trips in the near future.

Way back in September last year, on the occasion of the International Congress in Manchester, Bernie Lightman and I had an extended conversation. During our talk he offered to involve me in his decision-making process after receipt of pertinent referee reports. As a result, I have between then and now read about thirty manuscripts and have thought hard about what seemed to me the best decision in each case—accept, reject, or revise and resubmit and, in the latter case, how.

Once an article has been accepted, all revisions are done, and the issue in which the article will appear has been assembled and submitted to Joan Vandegrift, it takes six more months for the article actually to appear. She needs three months to edit all of the articles and book reviews that go into a single *Isis* issue. Upon receipt of the edited copy,

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The *Newsletter* is edited and published in the Executive Office. The format and editorial policies are determined by the Executive Director in consultation with the Committee on Publications and the Society Editor. All advertising copy must be submitted in electronic form. Advertisements are accepted on a space-available basis only, and the Society reserves the right not to print a submission. The rates are as follows: Full page (7 x 9.25"), \$625; Horizontal or Vertical Half page (7 x 4.6"), \$375; Quarter page (3.5 x 4.6"), \$225. The deadline for insertion orders is six weeks prior to the month of publication and should be sent to the attention of the HSS Executive Office. The deadline for news, announcements, and job/fellowship/ prize listings is firm: Six weeks prior to the month of publication. Long items (feature stories) should be submitted eight weeks prior to the month of publication. Please send all material to the attention of the executive office: info@hssonline.org.

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FROM THE HSS EDITORIAL OFFICE, *CONT.*

the University of Chicago Press needs another three months to turn definitive texts, pictures, and all the rest into a printed journal issue and its electronic equivalent. Consequently, the issues that you will be receiving in September and in December have been prepared wholly by Bernie and his staff, even though from the September issue onward the masthead will be listing our new editorial staff and addresses (Trans 10 / 3512 JK Utrecht / Netherlands; ISISJournal@uu.nl). Even the March 2015 issue has, luckily, been prepared by Bernie in its entirety. *Isis* is a bit like the proverbial oil tanker—those things that I shall be wanting to alter, or to give a new emphasis to,

will not begin to become manifest until next year in the June issue.

As for such changes, please do not expect anything really and truly major. You will be finding partly novel guidelines for prospective authors. If you are thinking of becoming one, you will soon be facing an author-friendly electronic submission system. You will also encounter in due time several more-substantive changes and innovations as we move along—as of this writing (early June) I still have a little time left to cut several knots of partly my own making. Please do not take any of these changes as criticism of what my predecessor and his staff have done—I am sure that we receive *Isis* out of their

well-proven hands in as healthy a state as I could possibly wish for, with every issue arriving right on time, and with much useful and instructive content for all HSS members. If the same can be said five years down the line, my prime task will be fulfilled. Even so, obviously, I shall seek to fill my editorship in accordance with what I slowly but surely begin to regard as *Isis*' priorities over the years 2014–2019. I will write more about these priorities in future contributions that I intend to make to the *Newsletter* under the same title “From the HSS Editorial Office.”

- *H. Floris Cohen*
HSS Editor

NOTES FROM THE INSIDE

by *Robert J. Malone*

In my last missive we were on the cusp of our strategic planning retreat in Chicago. That March weekend now seems an eternity in the past, in part, because so much has happened post retreat. I am grateful to the 40 members who gathered in the O'Hare Hilton and wrestled with mountains of data, engaged in extended discussions of whom, exactly, the HSS serves, and grappled with questions of what we should keep and what we should discard. A distillation of those efforts appears in this *Newsletter*, providing members the best update of where we are in the process. In the end, we identified six areas (or goals) on which we wish to focus our energy.

As I mentioned, this process is moving quickly. The six goal teams are now fully staffed and 40+ HSS members are exploring ways in which we can fully realize these six priorities: Meetings/Networking; Publishing and Standards; Professional Development; Broadening Our Reach; Advocacy; and Membership. Each goal team is charged with developing the objectives and action plans for their respective goals. There are no restrictions. If the team believes that we should add a program or that we should enhance an extant program, and Council agrees that this should be done, the next phase will be to reify the process, be it a redistribution of our resources or the more challenging prospect of raising the money to make

this goal possible. Should we decide to engage in fund raising, then the circle will be complete—it was the desire to add to the HSS endowment that started us down this path of strategic planning. The prospect of profound change both excites me and sobers me as our goals begin to take shape. But the burden will be manageable because our members devote so much of their time and talent to the furtherance of the history of science. It is my hope that our strategic plans will unite our members' talents and passion with the world's great need—that is a recipe for happiness.

Thank you for your membership in the HSS.

- *Jay*
Executive Director

History of Science Society Strategic Planning Interim Report

Introduction

In 2013, the History of Science Society celebrated the centennial of *Isis*. In 2024 we will celebrate the centennial of the HSS itself, and the HSS Executive Committee believes that the Society should examine our mission and position ourselves favorably for our second century. To that end, in the fall of 2013 the Executive Committee began a strategic planning process with the assistance of Andrew Searle, a development consultant for non-profits and educational institutions.

Working with the Strategic Planning Leadership Team of Lynn Nyhart, Angela Creager and Jay Malone, Andrew has been guiding us through the steps of the Drucker Foundation self-assessment process. At the HSS Annual Meeting in November 2013, three groups (Council, Committee on Meetings and Programs, and attendees at the Business Meeting) analyzed the mission statement and identified the need to change it. Also in the fall, we formed a 15-person Strategic Planning Committee, which has worked hard to provide background information on key demographics and values held by the membership and by our potential membership, as well as studying features of the broader economic, publishing, political, and academic environment in which we are placed. Complementing this broad background information-gathering, Andrew conducted in-

depth interviews with four individuals who are significant stakeholders in the Society. The planning process (thus far!) culminated in a retreat on 29-30 March in Chicago, where 40 HSS members and supporters, including almost all the HSS Council members, gathered to think through our mission, how we touch people's lives, what activities we should strengthen, reassess, or abandon, and what our goals and results should be.

The present report summarizes our work to this point, bringing together the main themes emerging from the different modes of data-collection and ending with proposed goals. The reader will note that participants were asked to think broadly and that they not hesitate in suggesting radical beginnings for new programs and/or dramatic ends to existing efforts. Everything was on the table. The next task is to create specific objectives and action steps to achieve those goals.

Mission and Mission Statement

The three group discussions at the November 2013 HSS meeting made it clear that the mission statement should be changed—not much, perhaps, but participants voiced a desire that our mission reflect a more up-to-date representation of who we are and what we wish to do. Angela Creager, John Alaniz, and Marsha Richmond are currently revising the statement.

Most Significant Challenges and Opportunities (not ranked)

Challenges

- Political and cultural threat to the humanities; questions about the relevance of history
- Declining membership numbers
- Finding an appropriate and sustainable financial model amidst declining membership numbers and rise of open access (and quasi-open access) publishing
- Finding the right balance between supporting scholarship and public engagement to create synergies between them
- Flat or declining public funding for research in history of science
- Mismatch between number of PhDs in history of science and number of traditional tenure-track jobs in universities and colleges
- Dealing with the changing demography of HoS: increasing internationalization of consumers, diversity of kinds of work, more emeriti, the potential for an increasing generational divide
- Creating a clear vision of the discipline's future

Opportunities

- The possibility of informing contemporary discussions across many potent issues involving science

HSS Strategic Planning Interim Report, *cont.*

- Education and museum initiatives
- Other public history initiatives, e.g. federal and local governments, corporate history, archives, libraries, etc.
- Deepening connections with scientists
- Promoting cross-disciplinary research

Items that are both challenges and opportunities

- The changing job outlook: declining numbers of traditional tenure-track academic jobs, but skills appreciated elsewhere
- Changing publishing and media models, including open access publishing: how to disseminate research in different media
- The need for an inclusive and diverse profession, including not only gender, sexual, racial, and cultural diversity but also diversity of content
- Diversifying HSS's *disciplinary* profile; scientists and their professional organizations; sibling disciplines and interest groups
- Extending HSS's *geographical* reach to become less U.S.- and Canada-centric
- Mobilizing friends of the HSS

The Primary Consumer

(Note: As part of our self-assessment process, we strove to identify our primary consumer—"the person whose life is changed by" the History of

Science Society. Unlike the mission statement, which will become a public part of our identity, identifying the primary consumer is simply a tool for the process of identifying what the results of HSS's work should be and what values these support.)

People committed to doing, making, or advocating for the history of science, or who are learning to do so.

What the Primary Consumer Values

- **Professional satisfaction:** community; validation and recognition; excellent scholarship based on rigorous and fair standards; jobs (inside and outside academia); making our work matter
- **Professional resources:** networking, mentoring, and other career development support; tools and materials for research and teaching; ready access to those tools; material support
- **Personal satisfaction:** a vibrant community, friendships, collegiality, sense of identity, opportunities for service
- **Intellectual satisfaction:** intellectual stimulation, keeping up to date, inspiration
- **Supporting the field of history of science:** expanding public interest in and visibility/recognition for the field; advocating for and protecting history of science; setting and maintaining scholarly standards in the field

Supporting Consumers

Individuals and groups who must be satisfied for the History of Science Society to produce results.

- **Direct economic supporters:** donors to HSS; funders of history of science research (including federal science and humanities agencies, state and local agencies); employers of historians of science
- **HSS employees and volunteers**
- **Those whose intellectual interests engage with history of science:** scientists (and their scholarly organizations) interested in history; humanists and social scientists (and their scholarly organizations) engaged with science and culture/society, including "sister societies"; former HSS members, "alumni" of the field, users of HSS publications
- **Those who use the results of history of science research:** journalists, policy-makers, K-12 teachers and administrators, textbook authors and editors, undergraduates, museum curators and other informal educators, filmmakers, writers of science fiction and historical fiction
- **Those seeking data on the history of science:** search engines, people who want to know about history of science scholars and careers
- **Those who supply facilities and materials for history of science research and**

HSS Strategic Planning Interim Report, *cont.*

consumption: libraries/librarians, archives/archivists, editors/publishers, book dealers

- **Those who provide or control jobs for our primary consumers:** university administrations and committees, museums and heritage organizations, science-oriented corporations, publishers, non-profits and NGOs, government agencies at all levels

What Supporting Consumers Value

- **Direct economic supporters:** how we contribute to their mission; metrics of effectiveness—specifically, history of science’s value outside of the academy; defending government support of science (federal funders); educating the citizenry; effective education at all grade levels; good public relations; policy analysis; reputation; explanations of how science and technology advance through time; factors that retard or advance science
- **Those who provide or control jobs for our primary consumers:** bridge between sciences and humanities/social sciences; prizes; healthy class enrollments; effective teaching; transformative scholarship; well-tuned professionals; good analytical skills; clear communicators
- **HSS employees and volunteers:** tasks that make a difference, e.g. opportunity to join together for public engagement and public

service; intellectual rigor and stimulation; wide support; mentoring emerging scholars; curiosity; interdisciplinary collaboration

- **Those whose intellectual interests engage with the history of science:** crucial insights; meeting scholars at annual meeting (interdisciplinary collaboration); sharing research in a professional setting; good writing
- **Those who use the results of history of science research:** *Isis*; CB/HSTM database; illuminating the present state of science through a historical lens; clean story lines; writing/producing to deadline; curriculum guides; access to experts; reliable information
- **Those seeking data on the history of science:** *Isis*; *Newsletter*, CB/HSTM database; article hits; easily searchable website
- **Those who supply facilities and materials for history of science:** use of materials and collections; enthusiasm for topics; book/journal sales; article hits; accessibility of information; identifying authors

HSS’s Successes and Challenges

- HSS has been very successful in publishing excellent scholarship, especially in the “traditional” history of modern science, and validating it through prizes.
- HSS has been very successful in providing professional development and support for

those in or seeking tenure-track academic positions, though it has been less successful in recognizing the anxiety and disillusionment among early career scholars.

- HSS has been very successful in providing smooth and successful management of a complex operation and its finances.
- HSS has had mixed success at creating a lively forum for scholarly interactions via the annual meeting.
- HSS has been less successful at communicating to members what we do.
- HSS is just beginning to be successful at embracing and supporting those who do history of science beyond our traditional demographic, geographic, subject-oriented “core.”
- HSS is not successful at advocating for the profession and promoting the relevance of what we do to broader communities.
- HSS is not successful at embracing new people who may not be plugged into existing networks.
- HSS is not successful at sustaining the engagement of former friends and leaders.
- HSS is not successful at developing good metrics: measuring the impact of our work on those beyond ourselves; tracking career paths of historians of science over the long term.

HSS Strategic Planning Interim Report, *cont.*

What Results Should Be

- Improving the understanding of science as a field of human endeavor among students, scholars, and citizens.
- Nurturing and empowering a body of intelligent, thoughtful, engaged, intellectually demanding people who use the approaches incubated in their intellectual community of history of science to change things in the rest of the world.
- Introducing future scientists, physicians, and engineers, to the humanities and giving them a broader perspective on their chosen field of work.
- Educating the public and policy-makers about both the potentials and limits of scientific and technological solutions to social, political, economic, and environmental problems facing our society and the world.
- Demonstrating the importance of history for understanding the social and cultural consequences of science, as well as for understanding the effects of cultural assumptions on the development of science.
- Creating a human face for science that invites non-scientists and science educators to engage with science more thoughtfully by offering a sense of science as art and adventure.

What to Strengthen, Abandon, or Analyze

- The **annual meeting** should be made more vibrant by recruiting more people from beyond the usual suspects; balancing the number of sessions with giving people access to a place on the program; and explore models of other organizations that do it well.
- **Modes of communication** internally to Society members and externally to the public need to be reimagined, with increased emphasis on web presence and assessment (based when possible on actual usage analytics) of what information/services should be provided for free to the world and what should be member-oriented; alternative models should be sought, assessed, and evaluated for implementation. As part of this broad reimagination, the modes of delivery, content, and audience for the *HSS Newsletter* and the *Critical Bibliography* should be revamped.
- Means of disseminating **peer-reviewed scholarship** and reviewing functions traditionally embodied in *Isis* and *Osiris* need to be reassessed, with *Osiris* as a candidate for abandonment or radical reconfiguration.
- HSS-sanctioned **college-level teaching tools** such as syllabi, literature reviews of fields, and information about resource collections need to be brought up to date and reflect

international diversity of historians and audiences, including information about non-English-language materials.

- **Mentoring and professional development** of early scholars, especially at the annual conference, should be strengthened (e.g. career workshops involving representatives of non-traditional academic careers; and advertise this aspect). Graduate students and emerging scholars should be part of the process of determining what constitutes useful professional development.
- HSS should strengthen its **public outreach** efforts, including to non-specialists, journalists; decisions about what efforts to make should be coupled with analytics of use and success.
- HSS should analyze its efforts toward **K-12 education**: are these already being sufficiently covered by educators and curriculum requirements? If not, what should we be doing that would be most effective?
- HSS should strengthen its **advocacy** activities to potential funders, policy-makers, potential employers, and other supporting consumers.
- HSS should find specific ways to strengthen its **commitment to diversity** of underrepresented groups, disciplinary and professional situations and perspectives, and geographical locations.

HSS Strategic Planning Interim Report, *cont.*

Internal Systems that Should be Assessed

- Website and structure of communications with members
- Member information (availability to other members; how to update)
- Governance and interest group/caucus structure and recruitment into volunteer positions
- Membership model, including dues structure and what you get for your membership fee
- We need to develop a plan for fundraising and development

Draft Goals (with team leaders)

1. **Meetings/Networking:** Create vibrant regular HSS meetings and facilitate networking through other associations and venues. (Jay Malone and Liba Taub)
2. **Publishing and Standards:** Foster a publishing environment that promotes top-quality history of science scholarship in diverse media for diverse audiences. (Janet Browne and Fred Gibbs)
3. **Professional Development:** Support professional development of emerging history of science scholars in and outside academy. (John Alaniz and Tania Munz)

4. **Broadening Our Reach:** Promote general interest in history of science among educators at all levels and the public, in part by providing opportunities to scholars to expand their audiences and make their work more effective and relevant. (Greg Macklem and Karen Rader)
5. **Advocacy:** Advocate on behalf of field and its practitioners (to the public, to government officials, to universities to support value of history of science, to potential employers of historians of science). (Mike Sokal and Conevery Bolton Valencius)
6. **Membership:** Produce a sustainable governance and financial system for HSS that will promote a welcoming, culturally and internationally diverse and interdisciplinary organizational culture. (Adam Apt, Angela Creager, and Lynn Nyhart)

Participants

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Leadership Team: Lynn K. Nyhart, Angela Creager, Robert (Jay) Malone

Strategic Planning Committee: Rodolfo (John) Alaniz, Adam Apt, Jessica Baron, Janet Browne, Angela Creager, Joe Dauben, Fred Gibbs, Greg Macklem, Robert (Jay) Malone, Tania Munz, Lynn Nyhart, Marsha Richmond, Mike Sokal, Edna Suárez Díaz

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HSS Strategic Planning Interim Report, *cont.*

Other Contributors

The following names are of those who attended the strategy session at the annual business meeting, members of our Committee on Meetings and Programs who helped with planning, who wrote in with their ideas, who gave in-depth interviews, or who contributed in some other way. (C) = HSS Council

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University of Puget Sound*

Innovations in Education is a column edited by Jim Evans (University of Puget Sound). The editor warmly invites ideas and offers for future columns. Contact jcevans@pugetsound.edu.

Teaching Those Who Teach Evolution: The Khan Academy Approach

Donald R Forsdyke (Queen's University, Ontario)

Introduction

Evolutionary concepts underlie all bioscience teaching, yet it is claimed that “our current educational system rarely, if ever, attempts to teach them in a serious and effective manner” (Klymkowsky 2011). Indeed, there is a “pervasive reluctance of teachers to forthrightly explain evolutionary biology.” So conclude Berkman and Plutzer (2011) from their national survey of US high school biology teachers. Among their “strategies for avoiding controversy” are teaching various aspects of microevolution (e.g. genetics, molecular biology) and “completely ignoring” the “macroevolution of species.” The proposed solution is to focus on obtaining “better trained teachers” by “improving the instruction they receive on evolution as undergraduates.” But this goal is to be achieved merely by making evolution a requirement for college level education courses. Although an important step, the possibility that there might be problems with the instruction itself has not been considered (Berkman and Plutzer 2012). I here suggest why college level instruction may be inadequate and, indeed, partly responsible for this “pervasive reluctance” to teach evolutionary concepts. Furthermore, I propose remedies. To support those who might choose to follow my advice, I outline below a series of free on-line videos that use an approach similar to that of Salman Khan of the highly successful “Khan Academy” (Thompson 2011; Khan 2012).

Research Peer-Review Constrains Teaching

As noted in Berkman’s and Plutzer’s survey, many high school teachers receive their undergraduate education at non-research institutions that do not offer special evolution courses. But many of the instructors at such non-research institutions have themselves been trained at research-intensive institutions. Having been engaged for several decades in research and teaching at such an institution (e.g. Forsdyke 1978), I have come to believe that this is where the problem is rooted.

The focus at research-intensive universities is on preparing future graduate students for the highly competitive “cutting edge” research carried out in laboratories such as those of their instructors. The academic goals of other students are taken less seriously. Furthermore, rather than simplify, the instructors tend to qualify and hedge, thus affording little ground for suspicion that they might not have mastered subjects that are often fraught with exceptions and apparent paradoxes. This arises, not from professorial pedantry, but from the habit of self-marketing that arises in the Darwinian struggle for career advancement known as peer review (Forsdyke 2000). Furthermore, the chances are that those who review their next grant applications will be better versed in contemporary science, than in its history. Alas, “past science is yesterday’s newspaper” (Otis 2010). So history can be safely ignored, as can the views of maverick

Teaching Those Who Teach Evolution, *cont.*

“outsider scientists” who are unlikely to be among the reviewers (Harman and Dietrich 2013).

Hardly comparable with the careful statistics of Berkman and Plutzer (2011), these anecdotal assertions can be easy to dismiss. But their likely truth is deducible on *a priori* grounds by anyone who systematically reads *Nature*, *Science* or *The Scientist* (for a recent review see Balaram 2012). It is self-evident that, for many engaged in the tooth-and-claw, winner-take-all, struggle for research funds, the placing of teaching before research is professionally hazardous. Given that some teaching must be done, it is akin to professional suicide to address the needs of future teachers rather than of those who may join one’s laboratory.

Terminology before Principles

Beyond the constraints of peer review lie decisions on the importance of various aspects of macroevolution and the best order in which they should be taught. Too often educators present a complex pageant of life forms—wiggling nematode worms, gracefully contracting jelly fish, cuddly koalas—rather than seeking out the key elements common to all of these forms. Too often Darwin’s natural selection is portrayed as fundamental, rather than as just one aspect of a much profounder whole. Too often, branching evolution precedes the relatively simpler topic of linear evolution. Too often, geographical isolation is assigned a major role to the exclusion of other forms of reproductive isolation. Too often, there is no distinction between reproductive

isolation and reproductive incompatibility. Too often, there is focus on genic incompatibility to the exclusion of non-genic incompatibility. The list goes on and on.

Their heads laden with complex terminology and a wealth of technical detail, undergraduate students emerge with the idea that this knowledge is an essential prerequisite to the understanding of evolutionary principles—terminology first, principles afterwards, not the converse. Thus, from research institution to non-research institution, and on to a nation’s high schools, the attitudes of those at the “top” trickle down to confuse and bewilder. The Khan Academy bioscience videos, while excellent in many respects, tend to reinforce this.

What Is to be Done Now?

In short, I maintain that the teaching at research-intensive institutions casts a deep shadow over the education offered at other institutions. This finds expression in surveys such as that of Berkman and Plutzer (2011, 2012). Since the *modus operandi* of research-intensive institutions is unlikely to be remedied in the near future (Forsdyke 2000), what is to be done now about teaching evolution in high schools? Here the Khan approach, extended to teaching at college-level (Parslow 2012), may play a powerful role.

For many decades prior to the PowerPoint era, teachers spoke while concurrently writing on transparent sheets displayed on a screen. If carried

out correctly, the student felt that he/she and the instructor were sitting side-by-side, however big the class. But it was still the instructor, not the student, who determined the pace. Camtasia Studio software overcomes this problem of pacing and facilitates self-directed Internet learning, a pedagogy that has now been ably exploited by Khan.

After being educated at research-intensive institutions (MIT and Harvard), Khan began making videos to help a relative with her math homework. This soon blossomed into a major one-man enterprise that gained wide media attention and support from the Gates Foundation (Khan 2012). Students see multicolored drawings, arrows, numbers and letters, moving across a black background, all accompanied by Khan’s melodious voice. With pause and rewind options, students can proceed at their own pace. Although laced with warm earnestness rather than humor, Khan’s courses have spread worldwide and volunteers have translated them into many languages. Inspired by the success of initial offerings in mathematics, physics, economics, and high finance, Khan expanded into history (e.g. the French Revolution) and the biosciences (but not into their history). Here, presumably guided by his undergraduate lecture notes, biological terms are clearly set out. Students should perform well in examinations set by busy instructors who pose questions that can be marked by graduate students or computers.

Teaching Those Who Teach Evolution, *cont.*

Comprehension of principles often does not fall into this category.

Evolution Videos

While sadly lacking Khan's eloquence—but one has to start somewhere—I have moved from overhead transparencies to a pen-tablet, in order to explain evolutionary principles and their historical development in everyday terms and, it is hoped, with a touch of humor (Forsdyke 2011a). Organisms are portrayed abstractly as collections of characters. Thus the first series of twelve videos begins with a vertical arrow from organisms A with a particular set of characters to organisms B where many of these characters have changed. This is linear evolution. The line is then depicted as a recurring cycle: gamete, to child, to adult, to gamete. Through ongoing variation, there is a constant pressure for branching into two independent cycles that will each tend to follow linear trajectories. However, branching is usually frustrated. Linear evolution is frustrated branching evolution.

This frustration arises in two ways. When branching lines are of different fitness, members of one line tend to degenerate, reproductively isolating them from members of the other line, which hence will interbreed only with their own kind. In this circumstance, the rate of evolutionary change is high. On the other hand, when branching lines are of equal fitness, members of the two lines are

not reproductively isolated and so can interbreed. Characters may then tend to blend in children and the rate of evolutionary change is slowed. At this point the temptation to get into the intricacies of blending and non-blending inheritance is resisted. The blending idea is simple and intuitive, and amply serves our purpose. It is dealt with more fully in the later, more historical, videos (see below).

Jurassic Park

Also resisted is the temptation to move too early to branching evolution. Our vertical arrow from A to B depicts two types of temporal change: (i) in form or function, and (ii) in reproductive compatibility. When compatibility fails, new species can arise. At some point a prototypic B form (proto-B) would have become reproductively incompatible with the ancestral form A. If they could have been crossed, either no child would have been produced or, if produced, that child would have been sterile and hence unable to continue the line. A new species could have emerged. Even if not spatially separated, the reproductive isolation between A and proto-B, arising from their temporal separation, would have prevented their blending, thus facilitating progression to reproductive incompatibility. But how is this fanciful idea to be tested? How is a distant ancestor to be crossed with a much later descendent? At this point there is digression to a “thought experiment” based on the novel *Jurassic Park* (Crichton 1990). Here information from the

DNA of extinct organisms is used to recreate the originals that are brought together in a park-like zoo where the ability to cross can be tested.

The videos then consider the segments in the unitary generational cycle where it can be interrupted to produce two separate, reproductively isolated, cycles. These have the potential to lead to organisms that have diverged both from their common ancestral form, and from each other. Yet, temporal or spatial separations may initially cause reproductive isolations, but not reproductive incompatibilities. Later these externally arising isolations may be superseded by reproductive incompatibilities arising from internal changes—some genic, some non-genic—within the organisms themselves. Prior external causes then become irrelevant. On the other hand, sometimes internally-arising reproductive incompatibilities develop first. These reproductively isolate as effectually as external separations, so that reproductive isolation and incompatibility appear together.

Genic and Non-Genic Mechanisms

Next, the videos turn to the likely number of genes corresponding to the three main segments of the unitary generational cycle. These segments are concerned, successively, with transmission of gametes, embryonic development, and formation of gametes for the next generation. Assuming genes to have equal probabilities of mutating,

Teaching Those Who Teach Evolution: The Khan Academy Approach, *cont.*

it is pointed out that, in general, failure in the relatively small number of genes required for gamete formation is insufficient to account for the frequency of failure of gamete formation as a mechanism for internally-arising reproductive isolation. Instead, non-genic mechanisms are invoked.

This leads to consideration of DNA, chromosomes, cell division, and the somatic cell/germ-line cell duality. Little chemical sophistication is expected. DNA is composed of four building blocks (4 colored balls) and each protein is composed of twenty building blocks (20 colored balls). When there is variation, one of these colors mutates into another. These variations may bring about both changes in characters that relate to the form or function of an organism, and changes in reproductive compatibilities.

From the above, it can be noted that terms such as zygote, base, amino acid, mitosis, meiosis, allele, clade, genome, genotype and phenotype, are avoided in the first twelve videos. Mendel is not mentioned, and Darwin and the term “natural selection” are mentioned only briefly (expanded on in later videos—see below). In a deep sense, students already know—have an intuitive understanding of—the principles of evolution. The videos try to elicit this. If the videos succeed, students should then be encouraged to master the terminology and to delve more deeply into the processes (Forsdyke 2001, 2011b).

Thus, the videos should serve the various constituencies in different ways. Students, at high school and above, may find them to be a useful supplement to their biology course materials. Instructors at various levels may find that the videos provide a useful template regarding what is to be taught, and in what order. Indeed, as with Khan’s productions, instructors may prefer to assign a video for advanced viewing, and then use class time for discussion.

History Videos

After the first series of videos on evolutionary principles, the history begins—enter Darwin, Mendel, and much more (Cock and Forsdyke 2008). The second series (twelve videos in all) is on natural selection, proceeding from Patrick Matthew in the 1830s to Samuel Butler in the 1870s. The third series (also twelve videos) is on blending inheritance with input from Francis Galton and Fleeming Jenkin. The fourth series (eighteen videos), entering the modern era, is on introns and exons. There are currently 54 videos, each around 15 minutes in length, for a total of 15 hours viewing. As back up, there are also some formal conference lectures (Forsdyke 2011c). A recurring point is that, to really understand a subject, you need to understand its history. But, paradoxically, to understand the history you need to understand the subject. So, ideally, studies of a subject and of its history should go together, hand in hand.

To understand the principles of a subject, any subject, it is often best to follow, step-by-step, how those principles first gained recognition and were reconciled with the facts of the subject, to arrive at the view we now have. In this way we can see how, although confronted with the same facts, different people weigh them differently and arrive at different interpretations, and why one interpretation is now seen as better than another. And that’s nice, because history is about people—some good, some not so good—and we all like a bit of gossip!

Conclusions

Teaching at research-intensive institutions casts a deep shadow over instruction at other institutions. Structural defects relating to the research/teaching dichotomy at research-intensive institutions may have impaired the education of future high school teachers. To remedy this, the Khan Academy approach has the potential to help advanced educators make the elements of their subjects match the needs of diverse audiences. This is of particular importance for the understanding of evolutionary biology.

Acknowledgements

Queen’s University hosts my evolution education web-pages, which provide access to videos on YouTube or Vimeo (<http://post.queensu.ca/~forsdyke/videlectures.htm>).

Teaching Those Who Teach Evolution: The Khan Academy Approach, cont.

References

Balaram P. 2012. "Slowing down." *Current Science* 103:347-348.

Berkman MB, Plutzer E. 2011. "Defeating creationism in the courtroom, but not in the classroom." *Science* 331:404-405.

Berkman M, Plutzer E. 2012. "An evolving controversy. The struggle to teach science in science classes." *American Educator* 36:12-40.

Cock AG, Forsdyke DR. 2008. *Treasure Your Exceptions. The Science and Life of William Bateson*. New York: Springer.

Crichton M. 1990. *Jurassic Park*. New York: Knopf.

Forsdyke DR. 1978. "A comparison of short and multiple choice questions in the evaluation of students of biochemistry." *Medical Education* 12:351-356.

Forsdyke DR. 2000. *Tomorrow's Cures Today? How to Reform the Health Research System*. Amsterdam: Harwood Academic.

Forsdyke DR. 2001. *The Origin of Species, Revisited. A Victorian who Anticipated Modern Developments in Darwin's Theory*. Montreal: McGill-Queen's University Press.

Forsdyke DR. 2011a. [cited 2014 March 25] "Introduction to Evolutionary Principles" [Internet]. Forsdyke Evolution Academy. Available from: <http://www.youtube.com/playlist?list=PL149AF63B4B8B20EC>

Forsdyke DR. 2011b. *Evolutionary Bioinformatics*, 2nd ed. New York: Springer.

Forsdyke DR. 2011c. [cited 2014 March 25] [Internet]. Forsdyke Evolution Academy. Available from: <http://post.queensu.ca/~forsdyke/videolectures.htm>

Harman O, Dietrich MR. 2013. *Outsider Scientists. Routes to Innovation in Biology*. University of Chicago Press.

Khan S. 2012. [cited 2014 March 25] [Internet] Khan Academy. Available from: <http://www.khanacademy.org>

Klymkowsky M. 2011.[cited 2014 March 25] "Why is evolution so hard to understand?" [Internet]. ASBMB Today. Available from: http://www.asbmb.org/asbmbtoday/asbmbtoday_article.aspx?id=11724

Otis L. 2010. "Science surveys and histories of literature. Reflections on an uneasy kinship." *Isis* 101:570-577.

Parslow GR. 2012. "The Khan Academy and the day-night flipped classroom." *Biochemistry and Molecular Biology Education* 40: 337-338.

Thompson C. 2011. [cited 2014 March 25] "How Khan Academy is changing the rules in education" [Internet]. *Wired Magazine*. Available from: http://www.wired.com/magazine/2011/07/ff_khan/

About the Author

Donald R. Forsdyke is Emeritus Professor in the Department of Biomedical and Molecular Sciences at Queen's University, Ontario. His textbook *Evolutionary Bioinformatics* (New York: Springer, 2011) is now in its second edition. He has made special studies of Darwin's research associate, George John Romanes (*The Origin of Species Revisited. A Victorian who Anticipated Modern Aspects of Darwin's Theory* Montreal: McGill-Queen's University Press, 2001) and, with A. G. Cock, of William Bateson, who brought the work of Gregor Mendel to the attention of the English-speaking world (*Treasure Your Exceptions. The Science and Life of William Bateson*. New York: Springer, 2008).

He can be reached at the Department of Biomedical and Molecular Sciences, Queen's University, Kingston, Ontario, Canada K7L3N6 forsdyke@queensu.ca.

MEMBER NEWS

Barbara Becker (University of California, Irvine) announces the recent publication of the *Selected Correspondence of William Huggins*, in two volumes (London: Pickering & Chatto, 2014). This edition includes over 1,000 letters, as well as excerpts from Huggins's observatory notebooks. She states that the volumes will be of interest to those researching astrophysics, astronomy, the history of instruments, and the history of science more generally.

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Roland Boucher (Independent Scholar) presented his paper "The Pendulum and Three Standards that Measured the Ancient World" at the 95th annual meeting of the Pacific Division of AAAS, in June 2014. He is happy to report that his talk was very well received.

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Jordan Bimm (York University) has been awarded the 2014-2015 HSS/NASA Fellowship in the History of Space Science. A fuller description of this fellowship appears elsewhere in this *Newsletter*.

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Matthew K. Chew (Arizona State University) has been appointed by the Research Division of the Huntington Library as the Huntington Exchange Fellow with Corpus Christi College in Oxford. Chew will spend part of the 2014 Fall semester continuing archival and site-related research for a book manuscript in development, provisionally titled *An Ecological Pandemonium: Charles Elton*

and the Ecology of Invasions by Animals and Plants. Elton was Director of Oxford's Bureau of Animal Population until his retirement in 1967. Elton's parents were accomplished and well-connected, and Chew will also be consulting family-related correspondence archived at Glasgow University in Scotland.

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Hamilton Cravens (University of Minnesota) is proud to announce the publication of a paperback edition of his and **Mark Solovey's** (University of Toronto) *Cold War Social Science: Knowledge Production, Liberal Democracy, and Human Nature* (New York: Palgrave/Macmillan, 2014 [2012]). All the chapters are original pieces of work, a number of which were written by HSS members: A foreword by **Ted Porter**, Mark Solovey on the concept of Cold War social science, **Hunter Heyck** on "producing reason," Hamilton Cravens on the connections between scientific positivism and conservative hypernationalism, **Michael Bycroft** on the creativity movement, **Nadine Weidman** on Ashley Montagu and biological anthropology, and **Marga Vicedo** on mother love in the Cold War. The editors hope that HSS members will find the book useful for their own work and for their classes.

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Andreas Daum (SUNY Buffalo) has received a NEH fellowship for 2014-15 for his book project on "Alexander von Humboldt and the Emergence of the Modern World."

Jean DeGroot (The Catholic University of America) has recently published *Aristotle's Empiricism: Experience and Mechanics in the Fourth Century B.C.* (Parmenides Publishing, 2014).

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Dawn Digrius has taken a position at The California State University, Office of the Chancellor, as Senior Project Manager of the STEM (Science, Technology, Engineering, and Mathematics) Collaboratives, as of 2 June 2014. She will be overseeing the system-wide initiatives in STEM.

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Judy Goodstein (Caltech) spoke at the January 2014 meeting of the American Mathematical Society in Baltimore and spoke again in June at a special meeting of the Bologna Academy of Sciences on the same topic: "Tullio Levi-Civita, Giuseppe Levi, and the 1931 Fascist Loyalty Oath."

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Henk Kubbinga (University of Groningen) recently published *The astronomical instruments (1618) and Catalogus librorum (1646) of Nicolaus Mulerius, with an essay on his place in the history of science* (Groningen University Press). Mulerius was the first professor of "mathematics" (and medical sciences) at the University of Groningen, which is celebrating the fourth centenary of its founding.

MEMBER NEWS, CONT.

Elizabeth Lunbeck's (Vanderbilt University) *The Americanization of Narcissism* has recently been published by Harvard University Press (2014).

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Roy MacLeod (Emeritus Professor, Sydney University) will hold the Sarton Chair for 2014-2015 at the University of Ghent, Belgium, where he will deliver a set of lectures on the role of science and scientists in the First World War. Professor MacLeod has also held appointments as a Keeley Visiting Fellow at Wadham College, Oxford; as a Fellow of the Institute of Advanced Studies at Durham University; and as a Senior Fellow at the Lichtenberg Kolleg in the University of Göttingen. At Göttingen he contributed to studies of the history of "materiality" in the history of science. In March 2014, he delivered the annual Max von Laue Lecture at the Deutsche Physikalische Gesellschaft in Berlin, and later this year, he will be a Guest Professor at the University of Aarhus, Denmark, where he will be working on nuclear history and the history of the environmental sciences.

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Adrienne Mayor's (Research Scholar at Stanford University) research is featured in a young-adult book recently published by the National Geographic Society: Marc Aronson's, *The Dinosaur and the Griffin: How Adrienne Mayor Discovered a Fascinating Link between Myth and Science* (2014). Another children's book features her as the "Explorer" who explains geomythology

around the world: Blake Hoena's *National Geographic Kids Everything Mythology* (National Geographic Society, 2014). Her book on the science and history underlying ancient Greek and other cultures' myths, legends, art, and literature about "Amazons" and warrior women is coming out in September: *The Amazons: Lives and Legends of Warrior Women across the Ancient World* (Princeton University Press, 2014). She has been invited to present this book at the National Book Festival on 30 August in Washington, DC. Finally, she is a regular monthly contributor to "Wonders and Marvels," the award-winning history of science website founded by Holly Tucker, <http://www.wondersandmarvels.com/>.

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Daniel P. Miller (PhD student, Science & Technology Studies, Virginia Polytechnic Institute and State University, National Capital Region) attended Arizona State University's Center for Nanotechnology in Society's (CNS-ASU) Winter School on the Anticipatory Governance of Emerging Technologies. At STGlobal 2014 in Washington, D.C., he presented a paper titled "Post-Fukushima U.S. Nuclear Power Regulation: Same Game?" to the International Relations and Governance panel. STGlobal is an annual conference where graduate students present research on Science & Technology policy, STS issues, and related fields. It is held in collaboration with the American Association for the Advancement of Science (AAAS) and The National Academies. He has also been awarded

a graduate certificate, in Science and Technology, from Virginia Tech.

.....

Edward K. Morris (University of Kansas) recently published an annotated bibliography of the works of B. F. Skinner (*Oxford Bibliographies*, Oxford University Press, 2013) and two articles on the history of applied behavior analysis (nee behavior modification): "A Study in the Founding of Applied Behavior Analysis through its Publications" (*The Behavior Analyst*, 2013, 36, 70-111) and "The Legacy of John B. Watson's Behaviorist Manifesto for Applied Behavior Analysis" (*Mexican Journal of Behavior Analysis*, 2013, 39, 155-179). In 2015, he will host the meeting of Cheiron, the International Society for the Behavioral and Social Sciences, in Lawrence, Kansas.

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Catherine L. Newell (University of Miami) has accepted a tenure track position in religion and science in the Religious Studies Department at the University of Miami, beginning Fall 2014.

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Lynn Nyhart will be starting a 4-year term as Senior Fellow at the Institute for Research in the Humanities at the University of Wisconsin-Madison beginning September 2014.

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Teresa Ortiz-Gómez (University of Granada) and **María Jesús Santesmases** (Consejo Superior

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de Investigaciones Científicas, Madrid) have recently published *Gendered Drugs and Medicine: Historical and Socio-Cultural Perspectives* (Ashgate, 2014). The table of contents, introduction, and index are available at <http://www.ashgate.com/isbn/9781409454045>.

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Michael A. Osborne (Oregon State University) has published *The Emergence of Tropical Medicine in France* (University of Chicago Press, 2014).

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Seth C. Rasmussen (North Dakota State University) has published *The Quest for Aqua Vitae: The History and Chemistry of Alcohol from Antiquity to the Middle Ages* (*SpringerBriefs in Molecular Science: History of Chemistry*, Springer, May 2014).

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Londa Schiebinger (Stanford University) has recently been elected to the American Academy of Arts and Sciences. Her new four-volume edited work, *Women and Gender in Science and Technology* (Routledge, 2014), seeks to make sense of the interlocking pieces of the gender, science, and technology puzzle: the history of women's participation in science and engineering; the structure of research institutions; and the gendering of human knowledge. The volumes bring together important representative publications treating these issues from antiquity to the present, and across cultures.

The official website of **Ioanna N. Semendeferi's** (University of Houston) recent film on science ethics has been activated: www.dearscientists.org.

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After working many years on limited-term contracts at the University of Toronto's Institute for the History and Philosophy of Science and Technology, **Mark Solovey** will begin a tenure-track job at the Institute, as historian of the social and psychological sciences, starting 1 July 2014.

.....

Roger H. Stuewer, Professor Emeritus of the History of Science and Technology at the University of Minnesota, has been awarded the Distinguished Alumni Award of the Department of Physics of the University of Wisconsin-Madison, which he received at the department's annual awards banquet on 2 May 2014.

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Kara W. Swanson (Northeastern University School of Law) is happy to announce the publication of her new book, *Banking on the Body: The Market in Blood, Milk and Sperm in Modern America* (Harvard University Press, 2014).

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Zuoyue Wang (California State Polytechnic University, Pomona), was a co-editor of *An Advocate for Democracy and Human Rights: Essays in Honor of Xu Liangying on His 90th Birthday* (Hong Kong: Mirror Books, 2012) in Chinese, and of *Fang Lizhi in Science: A Memorial Collection*

by the same press in 2014 with essays mainly in Chinese but also some in English. On Xu, a historian of physics, see **Danian Hu's obituary in the July 2013 issue of this Newsletter**. Fang, the prominent Chinese astrophysicist-dissident who spent his last years as a professor of physics at the University of Arizona before passing away in 2012, had a strong interest in the history of science. Wang had studied with both men as a graduate student in China in the 1980s and is currently completing a transnational history of Chinese American scientists with the support of a grant from the National Science Foundation.

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Richard Weikart (California State University, Stanislaus) has recently published "The Role of Evolutionary Ethics in Nazi Propaganda and Worldview Training," in *Nazi Ideology and Ethics*, eds. Wolfgang Bialas and Lothar Fritze (Cambridge, UK: Cambridge Scholars Publishing, 2014).

.....

Alex Wellerstein will begin his new job as Assistant Professor at the Stevens Institute of Technology (SIT) in Hoboken, New Jersey this fall. He is the author of the wildly popular web site <http://nuclearsecrecy.com/nukemap/>, which answers the question "What would happen if a nuclear bomb went off in my home town?" Alex is happy to report that SIT is very supportive of his work, especially his digital activities.

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Richard Yeo's recent book is *Notebooks, English Virtuosi, and Early Modern Science* (The University of Chicago Press, 2014). He has retired from a Personal Chair in the School of Humanities, Griffith University, Brisbane, Australia. He is currently an Adjunct Professor.

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ISIS in Transition

Have you heard? *Isis* has moved to The Netherlands! *Isis* moved to the Descartes Centre at Utrecht University on July 1st. The new Editor for the HSS is H. Floris Cohen, professor of comparative history of science and former chairman of the Descartes Centre for the History and Philosophy

of the Sciences and the Humanities at Utrecht University. You can learn more about him at <http://www.hfcohen.com/> and **read a *Newsletter* interview with him here.**

Isis' move to the Descartes Centre is financially supported by Utrecht University, the Ammodo Foundation, The Huygens Institute for the History of the Netherlands in The Hague, and Museum Boerhaave in Leyden.

The *Isis* office at York University, Toronto, Canada shut down on 17 June, after 10.5 years, and opened again at the Descartes Center, Utrecht University, Netherlands on 7 July. Messages may be sent to ISISJournal@uu.nl and will be answered by the new editorial office.



HSS President Angela Creager and the Descartes Centre's Director Wijnand Mijndhardt signing the editorial agreement between the two organizations.

News about the HSTM Database—Update

Notice to users of the *Isis Bibliography*. For the past several months, it appears that the HSTM database hosted by EBSCO was missing a very substantial number of records from the *Isis* dataset. Researchers who have searched in the EBSCO system may have turned up many fewer results than they should have. The gap affected records from 2000 to 2012. We apologize for this extraordinary mistake.



HSS/NASA Fellowship Awarded to York University's Jordan Bimm

The 2014-2015 HSS/NASA Fellowship in the History of Space Science has been awarded to Jordan Bimm, a PhD student in Science and

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Technology Studies at York University in Toronto, Canada. The fellowship will allow him to do nine months of research, working in archives at Wright-Patterson Aeromedical Library in Ohio, the NASA History Archives in Washington D.C., and the Lovelace Foundation in Albuquerque, New Mexico. He is currently writing a dissertation on the construction of the American astronaut in the 1950s, including an analysis the roles of space medicine and psychology in selection criteria of the first astronauts. The project will be “a new contextualist history of space medicine and the construction of the astronaut” and will take into account “the idea that science is also political, and that medicalized visions of the ‘body’ and ‘mind’ are historical creations thick with social and cultural values.” Bimm’s project will examine “critical moments when the type of person thought most suitable for work in outer-space was articulated.”

Bimm is the author of two articles, both published in *Quest: The History of Spaceflight*. The first, “Primate Lives in Early American Space Science” (2013), began as a paper delivered for the International Congress of History of Science, Technology and Medicine, in Manchester, England and earned a **story in the LA Times’ science section**. His most recent article, “Rethinking the Overview Effect,” (2014) won the Sacknoff Prize for Space History.

In addition to his research, Bimm has also served as the book review assistant for *Isis* and has performed

fieldwork at the Canadian Space Agency/Canada Science and Technology Museum.

Announcements from GECC

Graduating? Early Career? The History of Science Society’s Graduate and Early Career Caucus (GECC) is your source for relevant career advice and networking opportunities within your field. Follow us on Twitter and join us on Facebook for the latest news on the job market and the profession. Check out our on-going series of profiles of early-career scholars to learn what’s fresh in the history of science on our blog. Want to be featured on the blog or contribute content? Contact us at hssgecc@gmail.com.

- Twitter: twitter.com/HSSGECC
- Facebook: www.facebook.com/hssgecc
- Blog: hssgecc.wordpress.com/

Look for us at the annual meeting in Chicago in November. Events at HSS 2014 are still pending, but GECC offers a variety of ways for early careerists to get involved:

GECC Mixer and Rendezvous

Join us at the annual meeting for our Friday-night mixer. Past locations have included Boston’s Harpoon Brewery and San Diego’s Topsy Crow. This year’s location is still in the works but follow us on Twitter for updates.

GECC Member Luncheon

Watch the program for a chance to meet your GECC officers and enjoy drinks and desserts while we talk about what future events we might hold. We’re looking for session ideas, new officers, and any thoughts regarding ways HSS can better support graduate students and early career scholars. Bring your lunch and help us make HSS as helpful to you as it can possibly be.

Mentorship Program

The mentorship program is designed to bring together veteran scholars with graduate students and early career professionals at the annual meeting in Chicago. If you’re interested in being a mentor or mentee, please contact us at HSSmentorship@gmail.com.

CV Review

Submitting your CV soon? Need help organizing your CV? Get some fresh eyes and expert opinions from one of GECC’s CV reviewers at the annual meeting in Chicago. Interested in being reviewed or assisting with reviews? Email hss.gecc@gmail.com and check the blog for sign-ups in September.

Networking in Chicago

The Society’s newest caucus, HSS at Work, and the Graduate and Early Career Caucus will jointly sponsor an evening networking event at this year’s HSS meeting in Chicago. The event will feature opportunities to talk to historians of science who have built careers in non-tenure-track positions and who can help both graduate students and

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faculty advisers to prepare students for a broad range of careers. “Key Networkers” at the event will address general topics like informational interviewing, how to look for a job, negotiating once you have an offer, and how to maintain an identity as an historian of science from a position outside the academy. We hope that many of you will attend!

Survey Responses from the 2013 Meeting of the History of Science Society

The 2013 meeting of the History of Science Society in Boston, Massachusetts was a great success, from the program right down to the hors d’oeuvres. According to the annual follow-up survey, which received 150 responses (17.5% of attendees), over 80% of those participating in the survey found the 2013 location and program to be satisfactory (the majority reported being “highly satisfied”). The Society surpassed its delegate record from ten years ago (804 for the 2003 meeting in Cambridge, Massachusetts) with a total of 857 registered for the Boston gathering. Considering HSS’s number of regular members has declined nearly 25% since 2003, the high number of attendees was doubly gratifying.

While the hotel’s location in the Waterfront District elicited some negative comments by those who wished to explore Boston’s cuisine, shopping,

and cultural attributes (although it should be noted that the location was a vast improvement over the hotel in no-man’s land when we met in Cambridge) there was high satisfaction with the spaces provided within the hotel for meetings and



Left to Right: Former editors Margaret Rossiter, Arnold Thackray, and Ron Numbers, were joined by current editor, Bernie Lightman, in cutting the Isis anniversary cake.

panels. We do, however, empathize with those of you who still get a chill when thinking about the temperature of the rooms in the convention center. Not even great attendance and the accompanying body heat was enough to warm the rooms over 62 degrees (and we even registered a reading in the 50-degree range during our “Science in the Streets” event!).

Turnout was excellent at both of our receptions: the first in the hotel’s Mezzanine Foyer overlooking

the lobby and the second at the MIT Museum, the latter marking our official celebration of the 100th anniversary of *Isis*. At least 70% of responses were favorable regarding the food, drink, and length of the first reception, with some comments about the rather awkward space, which could be difficult to maneuver. The response to the space in the MIT Museum (made possible by generous contributions from MIT and Harvard), on the other hand, was overwhelmingly favorable and over 75% of respondents were satisfied with the food, drink, accessibility, transportation, and length of that reception, calling it “Fantastic!”, “Marvelous!”, “Splendid!”, and the “highlight of the meeting.” (Note: when it comes to food and drink, we hope that more hotels will begin to offer gluten-free catering options for those of you with food sensitivities. Rest assured that we have taken your suggestions into account, although a tasty gluten-free beer may continue to bedevil even our best minds.)

The meeting got off to a strong start with 72% of respondents either “very satisfied” or “somewhat satisfied” with our outreach event “Science in the Streets” (43 respondents) and 61% indicating satisfaction with the plenary session (62 respondents). Many of you were pleased that HSS is offering an outreach event at our annual meeting, one noting, “It was a great way to demonstrate ways citizen[s] can engage and be engaged by academics/scientists.” Some of you noted that many of the talks at “Science in the Streets” were too academic and suggested that even the sheer

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number of talks may have affected the number of non-HSS audience members (of which, we believe, there were only a couple of dozen). And while the spirit of the event is one that our members support and want to see continue, we need to do a better job of engaging a non-academic audience. One of our goals going forward is to make the event even more visible and accessible to the public while still maintaining its academic integrity.

“This was my first HSS experience and I’m really glad I participated. Great for me and my work.”

We received feedback on a wide array of other questions. While few who attended needed to use our dependent care resources, many commented on how much they appreciated these options and commented on the “forward-thinking” nature of such offerings. One important question we asked, looking forward to a meeting in Holland in 2019, was about the possibility of moving the annual meeting to August in order to accommodate more non-US and Canadian participants. Opinion was split here, with 60% stating that they would attend a meeting outside of the United States and Canada but only 44% in favor of moving the meeting to August to accommodate an international audience. Those who were not in favor of moving the meeting to August cited research and vacation time as the main obstacles.

“I think the August move [holding the conference in August] would be especially helpful in creating a friendly

conference atmosphere, because it would remove the job interviewing and networking that often comes along with HSS. I think the conference is a pleasant, friendly conference as it is (it’s my favorite one), but I know that grad students applying for history of science jobs find it very intimidating and stressful.”

“August is for vacations. Please don’t move the meeting to August.”

General comments on the meeting often suggested that there was so much going on (we ran 14 concurrent sessions) that it left little downtime to socialize with other participants and meet new people. Many respondents also requested that we explore something beyond the typical paper presentation model for some panels, pointing to posters and short science cafe-style (and PowerPoint-free) presentations as good examples. One respondent suggested that we build on the poster session by making it a more lively event, perhaps mixing it with a reception to ensure attendance and engagement as well as prizes for best poster to give scholars an incentive to present their work in this way. Some who were happy to stick to the traditional presentation model suggested that we train scholars (of all levels) to deliver papers in more engaging ways. Another suggested: “It would be great to explore some of the new things going on at the ‘un conferences’ like ScienceOnline. These are people who are maximizing their conference experience by breaking out of the paper panels model.”

While attendees have been using mobile devices and platforms like Twitter to document the meeting for a few years, 2013 was the first year that HSS actively encouraged the use of social media during events. While adoption of these devices will take some getting used to, 57% of respondents used either a smartphone or a tablet during the meeting, although only 17% of you reported using our Grupio online meeting application. More than a quarter of those responding (26%) followed or contributed to the Twitter feed (a great showing for our first year of official Tweeting!) and we’re happy to report that 69% of those surveyed found the use of this technology to be no distraction at all. In the future we will work to schedule events (like a “Tweet-up”) for those of you who use Twitter to network during the HSS meeting.

“I know some people complained that we received too many emails from organizers in the days leading up to the conference and during it. Personally I felt these emails were incredibly useful in highlighting specific information that was useful at different stages of the event, and they made me aware of things that I would probably not have picked up on had they been buried in the program or in the registration materials.”

When asked what could make meetings more effective and enjoyable, respondents had a variety of ideas, but many mentioned the need to make the conference more social and inviting. Graduate student and early career respondees said they would appreciate the opportunity to meet and chat with

MEMBER NEWS, CONT.

senior scholars in the field, suggesting that we plan more informal gatherings and encourage people to mingle. This is only problematic in the sense that many of our mid-career and senior scholars use the conference to meet up with friends and former colleagues and find it challenging to set time aside to meet new people.

“I would suggest that the conference organizers start planning more social and informational sessions for early-career, mid-career, and late-career attendees to learn from each other about how to be better scholars, professors, and colleagues.”

The single, greatest obstacle to conference attendance was cost (35%), followed distantly by the related “Obtaining funding from your institution/organization” (19%). We will keep this in mind going forward as we continue to offer travel grants, dependent care grants, meetings in cities with easy access, and create lean budgets while continuing to plan full, stimulating, engaging conference programs in cities that offer multiple entertainment and dining options.

As you might imagine, it’s challenging to put on a conference that will make everyone happy, but we are heartened by the overwhelmingly positive responses we received for the survey. We hope you will continue to share the ways in which the meeting was helpful to you, as well as your suggestions about how we can improve future meetings.

HSS Awarded NSF Grant for Conference Travel

The History of Science Society has won a grant of over \$200K from the National Science Foundation for a project titled “Eight Societies Travel Grants for Graduate Students, Independent Scholars, and Recent PhDs” (SES-1354351). The award, under the direction of HSS Executive Director Robert (Jay) Malone, will provide travel assistance to graduate students, independent scholars, and those who have recently received PhDs who wish to attend the professional meetings of the following eight societies:

- the History of Science Society (HSS)
- the Society for the History of Technology (SHOT)
- the Philosophy of Science Association (PSA)
- the International Society for the History of Philosophy of Science (HOPOS)
- the American Society for Environmental History (ASEH)
- the International Society for the Psychology of Science and Technology (ISPST)
- the International Society for the History, Philosophy, and Social Studies of Biology (ISH)
- and the Society for Literature, Science, and the Arts (SLSA).

From 2014 to 2016, the grant will fund travel to 19 conferences and will encourage engagement, as

well as inter-society interchange that would not otherwise be possible because of financial barriers. It will also strengthen relationships across the eight societies, which represent divergent fields and encourage international interactions.



Plan Ahead Future HSS Meetings

Chicago: 2014, 6-9 Nov.

Joint meeting with PSA

San Francisco: 2015, 19-22 Nov.

Atlanta: 2016, 3-6 Nov.

Joint meeting with PSA and the Society for Literature, Science and the Arts

Toronto, Ontario: 2017, 9-12 Nov.

Seattle: 2018, 1-4 Nov.

Joint meeting with PSA

Utrecht, The Netherlands: 2019,

Early August!

(Our first meeting outside of North America)

In Memoriam

Henrika Kuklick (1942–2013)

By James H. Capshew (Indiana University) and
Leila Zenderland (California State University,
Fullerton)

Henrika (Riki) Takiff Kuklick joined the Department of History and Sociology of Science at the University of Pennsylvania in 1975, advancing from lecturer to professor, and became a professor emerita a year before her death.



A native Philadelphian, she began her Penn career after completing a BA from Brandeis in sociology, an MA from the University of London, and a Yale doctorate, writing her 1974 dissertation on Ghana's colonial administrators. The department she joined, founded in 1970, was oriented toward integrating intellectual, social, institutional, and cultural history, and took a broad approach to organized knowledge in science, medicine, and technology since the Enlightenment as its domain. As its only member trained in sociology, Riki supplied a new kind of intellectual ballast to a faculty of historians, for her strikingly innovative studies analyzed both scientific discourses and

social structures in considering explanations for human behavior. She also created an especially welcoming environment for her graduate students.

Riki's graduate classes were exercises in historical exegesis and improvisation. Using primary source materials, often social science classics, she would deconstruct standard interpretations and then entertain alternate explanations from students. She was kind without being patronizing when offering suggestions and commentary. Ferociously well informed about the history of the social sciences as well as general academic culture, her approach was relentlessly reflexive, placing topics under discussion into richly textured contexts of historiography and scholarly tradition.

In 1982, under Riki's supervision, David Van Keuren completed his dissertation on anthropology in Victorian Britain. Thus began a steady stream of Riki's doctoral students, for she supervised, co-supervised, or served as a reader for dissertations by Richard Gillespie, Lyn Schumaker, Johannes Pols, Lisa Bud-Frierman, Donna Mehos, Elizabeth Hunt, Katherine Janssen, Helen Rozwadowski, Jeremy Vetter, Joy Rohde, Joshua Berson, Matthew Schauer, Jack Pressman, Gale Avrith, James Capshew, David Shearer, Leila Zenderland, Sarah Tracy, Alex Checkovich, Elizabeth Buckley, Maneesha Lal, Geertje Boschma, Alex Pang, and Paul Burnett, among others. Graduate students were

confronted with a subtle mind that was fearless in attacking flabby thinking or received wisdom, a brilliant academic who forged a unique approach to research. While her scholarly iconoclasm and quirky demeanor might be off-putting to some, her students knew the warmth and kindness beneath the occasionally prickly exterior. Plain spoken in her encouragement, she met students at their level and urged them towards academic fluency. She set impossibly high standards for her own scholarly production while encouraging students not only to meet professional standards but to exceed them in new and creative ways. Even in her final years when she was ill, she remained close to and supportive of many of the students she had first worked with decades earlier.

Riki's approach to the history and sociology of science blended a historian's respect for temporal and geographic specificity with a sociologist's understanding of the power of institutional practices—particularly within universities, professions, and government agencies. Over the years, the geographic focus of her historical scholarship widened—from Africa to Britain to America to Australia to comparative world history. So too did the subjects she explored, which included processes of professionalization, the sociology of knowledge (examined in a series of volumes co-edited first with Robert Jones and then Elizabeth Long), the intertwined histories of anthropology and imperialism, the emergence

In Memoriam

of both natural and social “field sciences” (explored in an *Osiris* volume co-edited with Rob Kohler), and changes in scientific practices from naturalist collecting to field work traditions to the construction of disciplines. Her first book, *Imperial Bureaucrat: Colonial Administrative Service in the Gold Coast, 1920-39* (Hoover Colonial Series, 1979), offered a quantitative analysis of the lives of the men who helped Britain understand, organize, and control its empire. In *The Savage Within: The Social History of British Anthropology, 1885-1945* (Cambridge, 1991), she switched to qualitative analysis to consider the converse: how studies of exotic cultures reflected and reinforced British ideas about their own society.

In addition, Riki authored many seminal case studies, writing influential essays on diverse subjects that included: how explanations for the Great Zimbabwe Ruins used archaeology to support diverse political stances; how Chicago sociologists not only described but also affected city growth by influencing federal housing policies; the importance of islands to research conducted by both biologists and anthropologists; the effects of public health theories on urban design in colonial Khartoum; the contested meanings attached to “totemism” and the ways such theories could be used to defend or abrogate land rights accorded indigenous Australians; the intersection of anthropological and physiological research in

the Torres Straits expedition; and the declining status granted natural history collectors coupled with the rising credibility accorded fieldworkers in the late 19th century. In these deeply researched and richly documented accounts, Riki repeatedly showed how scientific investigations not only explained but also helped shape social behaviors and practices.

Riki was a prodigious reader, writer, and reviewer who corresponded with a vast network of scholars from around the world. She was a generous critic and sounding board for former students and those she met through their work in the history of science, anthropology, sociology, psychology, psychiatry, biology, medicine, linguistics, and many other fields. She was also a much sought-after speaker, particularly when what was desired was an overview of where a field had been and where it was likely headed. One of her last works—to be published posthumously—offered just such an overview of the historiography of anthropology for a volume on the modern social sciences.

Riki was especially proud of her work integrating scholarship from a group of international researchers in her edited collection, *A New History of Anthropology* (Blackwell, 2008)—a work Australian anthropologist Howard Morphy called “a wonderfully engaging brave collection of essays that interrogates much of the received

wisdom.” Subtitles in her introductory essay capture many of her own broad questions: “Remembrance of Things Past”; “Anthropologists in Situ: Policing Boundaries; Restructuring Universities”; “Original Sins”; “The Past is a Foreign Country”; “Knowledge for Whom?” and “Academic Structures; Public Responsibilities.” Equally suggestive is the illustration she chose to represent the transformation of anthropology into a powerful and popular field: a paper doll depicting Margaret Mead, reproduced from a contemporary children’s cut-out book.

As a teacher, writer, speaker, and scholar, Henrika Kuklick was broad-minded, sharp-edged, funny, engaging, provocative, and always thoroughly original. Her unique legacy touched not only her daughter Marya but countless friends, relatives, colleagues, and students who loved her, as well as scholars from many fields and many places who learned so much from her.



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NEWS FROM THE PROFESSION



May 2014 Graduates of Harvard's Department of the History of Science

Janet Browne, chair of Harvard's Department of the History of Science, is proud to announce that the Department graduated 16 PhD and 2 MA candidates this past May. Pictured above in their crimson robes are (alphabetically) James Bergman, Anouska Bhattacharyya, He Bian, Jeremy Blatter, Stephanie Dick, Kuang-chi Hung, Melissa Lo, Mateo Munoz, Latif Nasser, Scott Phelps, Funke Sangodeyi, Myrna Sheldon, David Theodore, and Marco Viniegra. Our two MAs in black are Sandra Korn and Linna Duan.

President Obama nominates William D. Adams as Chairman of the National Endowment for the Humanities

(Adapted from the National Humanities Alliance's memo to its members)

A native of Birmingham, Michigan, Adams earned his undergraduate degree in philosophy at Colorado College and a PhD from the University of California at Santa Cruz History of Consciousness Program. He studied in France as a Fulbright Scholar before beginning his career in higher education with appointments to teach political philosophy at Santa Clara University in California and the University of North Carolina at

Chapel Hill. He went on to coordinate the Great Works in Western Culture program at Stanford University and to serve as vice president and secretary of Wesleyan University. He was named president of Bucknell University in 1995 and president of Colby College in 2000.

Adams's formal education was interrupted by three years of service in the Army, including one year in Vietnam. It was partly that experience that motivated him to study and teach in the humanities. "It made me serious in a certain way," he says. "And as a 20-year-old combat infantry advisor, I came face to face, acutely, with questions that writers, artists, philosophers, and musicians examine in their work—starting with, 'What does it mean to be human?'"

In each of his professional roles, Adams has demonstrated a deep understanding of, and commitment to, the humanities as essential to education and to civic life. At Colby, for example, he led a \$376-million capital campaign—the largest in Maine history—that included expansion of the Colby College Museum of Art and the gift of the \$100-million Lunder Collection of American Art, the creation of a center for arts and humanities and a film studies program, and expansion of the College's curriculum in creative writing and writing across the curriculum. He also spearheaded formal collaboration of the college with the Maine Film Center and chaired the Waterville Regional Arts and Community Center.

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As senior president of the prestigious New England Small College Athletic Conference (NESCAC), Adams has been at the center of the national conversation on the cost and value of liberal arts education. “I see the power of what is happening on our campuses and among the alumni I meet across the country and around the world,” he says. “People who engage in a profound way with a broad range of disciplines—including, and in some cases especially, with the humanities—are preparing to engage the challenges of life. They are creative and flexible thinkers; they acquire the habits of mind needed to find solutions to important problems; they can even appreciate the value of making mistakes and changing their minds. I am convinced that this kind of study is not merely defensible but critical to our national welfare.”

A statement from the National Humanities Alliance: Colby College President William D. Adams is the ideal person to lead the National Endowment for the Humanities. Dr. Adams is an accomplished teacher and administrator who has been a leading proponent of the importance of a broad-based education grounded in the humanities. We are fortunate that he will bring his years of experience to the NEH at a time when the humanities are being called upon to help achieve critical national goals such as promoting educational opportunity for all, fostering innovation, ensuring productive global engagement, and building strong communities. Dr. Adams has a deep understanding of the ways

in which the humanities can change lives, tracing his passion for the humanities to his search for answers to eternal questions while serving on the battlefield in Vietnam. The National Humanities Alliance applauds the nomination of Dr. Adams.

For more information, please see the announcement from the White House. The nomination must be confirmed by the Senate.

Quito and the Sun

By Hans J. Haubold, UN Office for Outer Space Affairs (this article is adapted from a report by E. D. López (Quito Astronomical Observatory, Ecuador))

There is a relatively new field of scientific research devoted to studying the physical phenomena that take place in the atmosphere around the sun. This field has been given the name “space weather,” and it includes many interesting and complex phenomena that are poorly understood, phenomena that are waiting for the sensitive instruments and adequate physical models that will explain them.

Fortunately, for over two decades, the **United Nations Basic Space Science Initiative (UNBSSI)** through the Committee on the Peaceful Uses of Outer Space and the United Nations Office for Outer Space Affairs (UNOOSA) has provided a huge amount of support to establish regional centers for space science and technology in

developing countries. Moreover, the United Nations’ initiative has played a pivotal role in organizing the world-wide scientific community through its support of space-science schools, symposia, and annual UN workshops such as those under the auspices of the **International Space Weather Initiative (ISWI)**. These events have facilitated communication among space-science students, engineers, and scientists, thus enabling agreements for educational programs, the deployment of instruments in new regions, and the enhancement of international cooperation in research projects.

The United Nations Space Weather Initiative (UNSWI) has involved leading scientists from around the world and these scientists have participated in three meetings to follow up on activities from the successful International Heliophysical Year 2007 (IHY). The first ISWI Workshop was hosted by Helwan University, Egypt, in 2010, to benefit the nations of Western Asia. In 2011 the United Nations/Nigeria Workshop was hosted by the Centre for Basic Space Science of the University of Nigeria at Nsukka, for the benefit of nations in Africa. The third ISWI workshop was hosted by Ecuador in 2012 in support of Latin America and the Caribbean.

Participants at the Ecuador workshop made key decisions in order to give continuity to future activities in space science, technology research, and education. They took advantage of that

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workshop to promote space science studies in Ecuador by creating a new station supported by the Quito Astronomical Observatory of the National Polytechnic School. The new station began with the operation of the AWESOME instrument provided through cooperation with Stanford University (USA) and with the MAGDAS instrument provided by Kyushu University (Japan). This new Ecuadorian station, Solar Physics Phenomena, is now established as a division of the Quito Astronomical Observatory.

Ecuador is located in a strategic geographical position where solar-physics studies can be performed year-round, providing data for the scientific community working to understand Sun-Earth interactions. We invite leaders from other scientific projects to deploy their instruments in Quito and to join us in supporting our new strategic research center.

Note: The proceedings of the UN Ecuador Workshop on the International Space Weather Initiative (ISWI), edited by E. D. Lopez and S. Gadimova, are published in the open-access journal *Sun and Geosphere*, Vol. 9 (2014), Nos. 1 & 2.

U.S. Members: Ask Your Representative to Join the National History Caucus

The National Coalition for History (NCH) has worked with the offices of Congressmen John Larson

(D-CT) and Tom Cole (R-OK) on the creation of a Congressional History Caucus. Please encourage your member of the House to join the caucus and to actively participate in its activities. The purpose of the caucus is to provide a forum for members of Congress to share their interest in history and to promote an awareness of the subject on Capitol Hill. **Click here** to learn more and go **here to send a letter to your representative**, asking him or her to join the Congressional History Caucus.

New Center in Holland

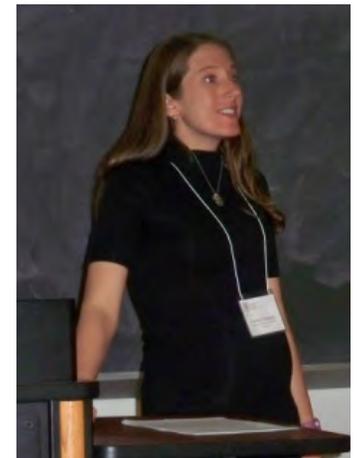
The Stevin Centre for History of Science and the Humanities, initiated and headed by HSS member Ida Stamhuis and named after the polymath Simon Stevin (1548–1620), is a collaboration of staff members from most faculties of the VU University Amsterdam. It opened on 18 March 2014. The lectures from the opening can be viewed at <http://stevincentre.com/news-agenda.html>.

Members of the Stevin Centre offer courses taught in English or Dutch on the history of science and the humanities at the BA and MA levels. The Stevin Centre is also a platform for research. It has formulated a common research theme titled “Knowledge Practices and Normativity within their Historical Context.” The concept of science will be problematized, and the role of philosophical, normative, religious, and legal aspects will be central in the historical analysis. The Stevin Centre aims at making its results available

to the wider community and to achieve this it will organize activities for the VU community and special activities for particular groups.

2014 Midwest Junto for the History of Science

The 57th Meeting of the Midwest Junto for the History of Science took place this past April at Truman State University, which is located amidst the gentle slopes of northern Missouri in Kirksville, the birthplace of osteopathic medicine. Peter Ramberg, David Robinson, and Amy Bix served as the gracious hosts for the approximately 50 Juntoers who attended. The meeting began in lovely fashion with an opening dinner at the home of Amy Bix and Taner Edis, close to the Truman campus.



Kate Sheppard answers a question on WWI spies

The sessions kicked off on Saturday, 5 April, in Magruder Hall (Truman’s science building). Due to the large number of submissions for the program, graduate students received priority and attendees came from near and far: from the frozen north (Minnesota

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students braved an early April snowstorm) to relatively nearby Iowa State University. Attendees listened to a feast of topics, 24 papers in all, 19 of them delivered by graduate students. The subjects ranged from open digital sources in the history of science, to the use of Google ngrams in research, to inertia in Descartes's thought, to the history of video arcade games, and to archeologists as spies in World War I.

Mealtimes at the Junto were a special treat. For Saturday's lunch, participants met in the atrium of the Still National Museum of Osteopathy, where they learned about A.T. Still and the origins of osteopathic medicine. The most famous item in the museum is a life-size display of the complete human nervous system as dissected and preserved by two students in 1926. At the Saturday-evening banquet, following a fine buffet dinner, David



David Wilson delivering the Pierson Memorial Lecture

Wilson (Iowa State University) delivered the annual Stuart Pierson Memorial lecture on "William Whewell: God's Spokesman in an Age of Scientific Shift."

Jay Malone, the Junto's incoming President, chaired the business

meeting, endeavoring to uphold the Junto tradition of finishing in 15 minutes or less. Junto members—those who had paid their \$2 membership fee—wisely elected Jole Shackelford (University of Minnesota) as the next President and then selected Kerry Magruder (University of Oklahoma) to serve on Council. The next Junto meeting will take place in Madison, Wisconsin, 17–19 April 2015 (mark your calendars) and then will move south the following year, in 2016, to Norman, Oklahoma to celebrate the spectacular Galileo exhibit that the Special Collections at the University of Oklahoma will host that year.

For the complete 2014 program and for more information on the Junto, contact the Secretary-Treasurer Peter Ramberg (ramberg@truman.edu) or see the Junto website at <http://www.history.iastate.edu/graduate-programs/midwest-junto/>.



Lone Star Historians of Science, left to right: Angela Smith, Karl Stephan, Anthony Stranges, Steve Case, Alberto Martínez, Ioanna Semendeferi, Cyrus Mody, Megan Raby, Sean Smith, Roger Horky, Colleen Witt, Bruce Hunt, Steve Kirkpatrick, Anna Fay Williams, Ioannis Pavlidis, Tom Williams

Lone Star Historians of Science

By Bruce Hunt, University of Texas

The Lone Star History of Science Group held its twenty-seventh annual meeting on 11 April 2014 at Texas A&M University in College Station, Texas. The gathering was hosted by Professor Anthony Stranges of the A&M History Department.

The speaker this year was Professor Andrew Dessler of the Texas A&M Department of Atmospheric Sciences, who spoke on "The Science and History of the Human Influence on Climate." A leading national expert on climate physics, Professor Dessler presented a lively account of the long history of scientific study of rising global temperatures, with a particular focus on recent politically motivated efforts to cast doubt on the scientific consensus concerning anthropogenic climate change.

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After a lively discussion, the group headed off to enjoy dinner and further conversation at a local Italian restaurant. Steve Kirkpatrick, who has found a way to combine the life of a historian with that of a vintner, kindly supplied the group with wine.

Each spring, the Lone Star Group draws together historians of science, technology, and medicine from around Texas to discuss their shared interests and enjoy a friendly dinner. Its constitution, adopted over dinner in an Austin restaurant in 1988, provides that there shall be “no officers, no by-laws, and no dues,” and the group remains resolutely informal. The next Lone Star meeting will be held in Houston in March or April 2015. Anyone interested in being added to the group’s e-mail list should contact Professor Bruce Hunt of the University of Texas History Department at bjhunt@austin.utexas.edu.

SHOT Three Minute Dissertation Video Contest

Want to spread the word about your research to a broader audience? The Society for the History of Technology is pleased to announce its first ever three-minute video contest for PhD students and recent graduates whose dissertation engages with the history of technology. We welcome participants from the history of science, technology or medicine, STS, media studies, material culture studies or any other

area in which understanding technology from a historical perspective matters.

The contest invites you to “pitch” your dissertation topic in a three-minute video. A panel of judges will choose the contestant who best explains the substance of the dissertation in an accessible and entertaining way. *The winner will receive, airfare, registration, accommodations, and a banquet ticket for a SHOT conference of their choice.* The ten best films will be published on the SHOT website and all films will be accessible on SHOT’s Vimeo channel.

The film should be directed at an educated general public, and cannot be longer than three minutes. Any language is welcome, but if the film has narration and is not in English we request English subtitles or some other aid to communication. *We encourage creativity. Participants are welcome to add music, illustrations or animation. Please see our resources page for more information about copyright and fair use.*

This is a great opportunity to let people know what you are working on!

Guidelines for entering the contest:

- Deadline for submission: **1 August 2014**
- Eligibility: Graduate students and young scholars in any field whose work explores technology from a historical perspective (Participants must have received their PhD no earlier than 2012)

Submission: Upload your videos to Vimeo and send the link, your name, email address, and permission for us to use your video on the Vimeo channel and the SHOT website, to techstories@techculture.org no later than **1 August 2014**. We will post all entries on a dedicated SHOT Vimeo channel once all submissions are in. **Do you feel a bit daunted by the thought of making a film? Here are some helpful tips and resources.**

IHPST Newsletter

The International History and Philosophy of Science Teaching Group’s latest newsletter is available online at <http://ihpst.net/newsletters/>.

2014 Digital HPS Consortium Annual Meeting: September 1-3 in Nancy, France

Following the meetings held in **Pasadena (2011)**, **Cambridge (2012)**, and **Bloomington (2013)**, the 2014 edition of the Digital HPS Consortium Annual Meeting will be held in Nancy, France, from 1 to 3 September. Organized by Olivier Bruneau, Pierre Couchet, and Scott Walter, with support from the **Henri-Poincaré Archives (University of Lorraine & CNRS)** and the **Maison des Sciences de l’Homme Lorraine**, the meeting offers an opportunity for scholars in DHPS to present their publications,

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tools, and methods, to exchange ideas, and to form and nurture contacts with members of the international DHPS community. The working language of the meeting is English, but there will be plenty of occasions to practice speaking French, for those so inclined.

Located in the Lorraine region of eastern France, Nancy is easily accessible by high-speed trains from both Paris and Charles de Gaulle airport (north of Paris). Travel directions, information on lodging, and a preliminary program will soon be available; stay tuned. Scholars wishing to participate in the meeting are invited to **register online**, eventually disclosing a title and abstract for a 30-minute talk at their earliest convenience.

2014 and 2015 Geological Society of America Annual Meeting Information

The 2014 Geological Society of America Annual meeting will be held 19–22 October 2014 in Vancouver, BC Canada at the Vancouver Convention Centre. The abstract deadline is **29 July**, and the registration deadline is **15 September**. More information can be found at <http://community.geosociety.org/gsa2014/home/>. In addition, the 2015 GSA annual meeting will be held 1–4 November 2014 in Baltimore, MD at the Baltimore Convention Center.

C.F. Reynolds Medical History Society 2014–2015 Lectures

The schedule of the 2014–2015 lectures of the C.F. Reynolds Medical History Society at the University of Pittsburgh is now available. All lectures will be held in Lecture Room #5, Scaife Hall, University of Pittsburgh, at 6:00 P.M. A dinner for members and their guests in the 11th floor Conference Center, Scaife Hall will follow each of the five individual lectures. The schedule is as follows:

23 Sep 2014

Robert Nesbit, MD, Professor Emeritus of Surgery, Medical College of Georgia at Georgia Regents University-Augusta, “Medical Aspects of the 1942 Coconut Grove Fire Night Club Fire in Boston.”

4 Nov 2014

21th Annual Sylvan E. Stool History of Medicine Lecture

Christopher Boes, MD, Associate Professor of Neurology and History of Medicine, The Mayo Clinic, Rochester, MN, “The Difficulty in Recognizing New Diseases: Examples from Osler and Horton.”

27 Jan 2015

Lorelei Stein, PhD, Professor, School of Arts and Sciences, Point Park University, “The Day-to-Day Practice of Dr. Cyrus Schriener: A Late 19th Century Practitioner in Rural Southwestern Pennsylvania.”

26 Feb 2015

4th Annual Jonathon Erlen History of Medicine Lecture

Scott Podolsky, MD, Associate Professor of Global Health and Social Medicine, Harvard Medical School, “Antibiotic Pasts and Futures: Seven Decades of Reform and Resistance.”

7 Apr 2015

Twenty-Seventh Annual Mark M. Ravitch History of Medicine Lecture

James B. Young, Professor of Medicine, Lerner College of Medicine of Case Western Reserve University, “Death of President Garfield: The Difficulty of Creating Paradigm Shifts in Medicine.”

3rd USA Science and Engineering Festival

By Kate MacCord, Jessica Ranney, Erica O’Neil (Arizona State University)

Members of the History of Science Society (HSS) teamed up with the Embryo Project Encyclopedia (EPE) from the Center for Biology and Society at Arizona State University for a booth at the third biennial USA Science and Engineering Festival from 25 to 27 April. Held at the Washington Convention Center in the nation’s capital, the festival drew an audience of over 325,000 attendees this year. Kate MacCord, Erica O’Neil, and Jessica Ranney ran the HSS-sponsored booth with the

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assistance of several volunteers, all of whom helped achieve the goal of informing visitors of the science and history surrounding issues of developmental biology.

To accomplish that goal in a hall filled with over 3,000 exhibits, the team focused on presenting a factual and scientific definition of an embryo through hands-on activities and explanations. Those activities included a “Name that Species” spinning wheel of embryo photos and “Build an Embryo” that allowed children to construct some of the organ precursors in a human embryo. Also, the team created a series of ten EPE trading cards for relevant topics, which included fun historical facts and anecdotes, to further spur history of science-related conversations.

The “Name that Species” game went over great with festival attendees who spun the wheel of embryos decorated with photos of mice, chicks, frogs, alligators, pythons, and lizards at different stages of embryonic development. After spinning the wheel, visitors were asked to identify the species, a difficult task at such an early stage of development when evolutionary conservation across species often results in a similar appearance. While no shrimp, sea horses, or sea monkeys were present on the wheel, those popular responses from visitors helped to trigger meaningful discussions about evolution and development. (The many coils of the python embryo tended to be a bit easier to identify!) Regardless of answer, everyone walked away with



From left to right: Kate McCord, Jessica Ranney, and Erica O'Neil
a prize for trying and hopefully an introduction to evolutionary conservation across species.

The “Build an Embryo” activity guided young visitors through the creation of a one-month old human embryo using modeling clay, to demonstrate how different the parts of an embryo look, compared to that of a fully grown human. Prior to the festival, presenters created a series of embryo models based on a teaching activity created by anatomy professor Colin Quilter at the University of Auckland, New Zealand. Each of the ten models exhibited a one-month old human embryo with different germ layers and organ rudiments. The festival attendees created a less complicated version of that model with clay. After creating the neural tube out of clay, visitors were guided through the creation of the optic placode, auditory vesicle, pharyngeal pouches, and



Kate McCord and Erica O'Neil at the USASEF

embryonic heart. By explaining technical terms in the context of what those tissues go on to become in the fully-formed human, visitors observed the differences of early organ rudiments in the embryonic stage. Afterward, they were welcome to take their embryo home or leave it as a teaching example for others to emulate.

An estimated 3,000 people visited the booth, a great turnout for a history of science public outreach project, particularly vying against so many other activities at the festival. The collaboration between HSS and EPE is particularly notable as the founder of the USA Science and Engineering Festival, Larry Bock, received the 2014 Victor Hamburger Outstanding Educator prize from the Society of Developmental Biology for his work creating a national festival friendly to issues surrounding development and reproduction.

NEWS FROM THE PROFESSION, CONT.

Conference: “Science and the Public in the Nation-State: Historic and Current Configurations in Global Perspective, 1800–2010”

Interdisciplinary workshop at the University of Tübingen, 11-13 Sept 2014

Conveners: Axel Jansen (Cambridge/UK), Andreas Franzmann (Tübingen), Peter Münte (Bielefeld)

The workshop allows for the exploration of the relationship between science and the nation-state from a new perspective. In nation-states that have traditionally supported research science (such as England, France, Germany, and the US), the profession evolved under the protective wing and as an ally of the political sovereign. Academic professions have played a significant role in the consolidation of national states. The conference focuses on historical configurations of science and the nation-state in Europe and in North America in order to compare these configurations to emerging science-oriented states such as China and India—countries that have significantly expanded their science budgets in recent decades. The relationship between science as a profession and the nation-state will provide an analytical framework for discussing important historic developments in different countries. What has been the public role of the academic professions? And what are the effects on research of “national policy decisions”?

Speakers include Fa-ti Fan (Binghamton), Dieter Langewiesche (Tübingen), Margaret Sleeboom-Faulkner (Sussex), Rudolf Stichweh (Bonn), Shiju Sam Varughese (Gandhinagar), and Jessica Wang (Vancouver).

The workshop is supported by the Volkswagen Foundation (Project “Public Context of Science”) and the Vereinigung der Freunde der Universität Tübingen (Universitätsbund) e.V.

For the conference program and additional information, visit the website: http://public-context-of-science.de/sciencenationstate_program.html

National Humanities Center 2015-2016 Residential Fellowships

The National Humanities Center offers up to 40 residential fellowships for advanced study in the humanities for academic-year or semester-long residencies. Applicants must have a doctorate or equivalent scholarly credentials. Young scholars as well as senior scholars are encouraged to apply, but they must have a record of publication, and new PhDs should be aware that the Center does not normally support the revision of a doctoral dissertation. In addition to scholars from all fields of the humanities, the Center accepts individuals from the natural and social sciences, the arts, the professions, and public life who are engaged in humanistic projects. The Center is

also international and gladly accepts applications from scholars outside the United States. Applicants submit proposals and other support materials electronically, via the Center’s online application system. The deadline for submissions is **15 October 2014**.

To apply, go to <http://nationalhumanitiescenter.org/fellowships/appltoc.htm>

New Research Group on the History of Matter, Materials, and Cultures

The Chemical Heritage Foundation (CHF) in Philadelphia, under the direction of its new president, Carsten Reinhardt, is excited to announce the launch of a new research group on the History of Matter, Materials, and Cultures. Based in CHF’s newly founded Institute for Research, the work of the group will interlace studies of the material culture of science with studies on the sciences and technologies of materials and matter. The group will focus on broad themes, including the material culture of the laboratory and the interplay between new materials and broader culture. The group will examine these themes in contexts spanning the early modern period through to the present, and the resulting work will create novel engagement and outreach opportunities for involved scholars. The research group will be a cornerstone in fulfilling CHF’s

NEWS FROM THE PROFESSION, CONT.

mission to foster broad, historically grounded, dialogue on the roles of science and technology, and matter and materials in society.

Call for Papers: 36th Annual Conference of the Nineteenth Century Studies Association 26–28 Mar 2015, Boston, Massachusetts

Material Cultures/Material Worlds

We seek papers and panels that investigate elements of the material world belonging to the long nineteenth century. Topics may include collecting, possession(s), things and thing theories, realism, hoarding, bric-a-brac, souvenirs, historic houses (interiors and rooms), buildings and “truth to materials,” collecting folklore and songs, Atlantic trade, colonial objects, commodity fetishism, animals as things (taxidermy, zoos, taxonomies), people as things (slavery, human zoos, relics, death masks), cabinets of curiosity, closets, antiquities, museum displays, theatrical stages and sets, textures, books and manuscripts as objects, the materiality of texts, art materials, food, fraudulent items or the luxury trade. We invite alternate interpretations of the theme as well.

Please email 250-word abstracts for 20-minute papers along with one-page CVs to the program chairs by **30 Sep 2014** to ncsaboston2015@gmail.com. Paper abstracts

should include author's name, institutional affiliation, and paper title in the heading. We welcome panel proposals with three panelists and a moderator or alternative formats with pre-circulated papers and discussion.

Please note that submission of a proposal constitutes a commitment to attend the conference if the proposal is accepted. All proposals received will be acknowledged, and presenters will be notified in November 2014. Graduate students whose proposals are accepted may, at that point, submit complete papers in competition for a travel grant to help cover transportation and lodging expenses. Scholars who live outside the North American continent, whose proposals have been accepted, may submit a full paper to be considered for the International Scholar Travel Grant (see NCSA website for additional requirements <http://www.ncsaweb.net>).

The Chemical Heritage Foundation Beckman Center Fellows

The Chemical Heritage Foundation is pleased to announce the appointments of the 2014-15 Beckman Center Fellows:

Cain Distinguished Fellow (4 months in residence)

1. Bruce Moran, (University of Nevada, Reno),

“Leonhard Thurneisser and the Alchemy of Plants in the Early Modern Era.”

Long-Term Postdoctoral Fellows (9-months in residence)

1. Deanna Day (University of Pennsylvania), Haas Fellow, “Teaching Through Toys: Girls Experiencing Science and Technology from Chemistry Sets to the American Girl Dolls.”
2. Stefano Gattei (IMT Institute for Advanced Studies, Lucca, Italy), Edelstein Fellow, “Beyond Galileo: Medicine, Alchemy, and Natural Philosophy at the Lyncean Academy.”
3. Ignacio Suay-Matallana (University of Valencia, Spain), Cain Fellow, “Chemicals Across Borders: Spanish Experts and Custom Laboratories in a Global Fight Against the Fraud.”

Long-Term Dissertation Fellows (9 months in residence)

1. Elizabeth Berry Drago (University of Delaware), U Delaware Fellow/CHF Fellow-in-Residence, “Thomas Wijck’s Painted Alchemists at the Intersection of Art, Science, and Practice.”
2. Nadia Berenstein (University of Pennsylvania), Haas Fellow, “Flavor Added.”
3. Britt Dahlberg (University of Pennsylvania), ACLS Fellow/CHF Fellow-in-Residence, “Envisioning Post-Industrial Futures: Community Activism and Government Environmental Health Science.”

NEWS FROM THE PROFESSION, CONT.

4. E.A. Driggers (University of South Carolina), Edelstein Fellow, “Networks of Nature: Chemistry and the Revival of Humoral Theory.”
5. Timothy Johnson (University of Georgia), Allington Fellow, “Growth Industry: Unearthing the Origins of Fertilizer-Fueled Agriculture in America, 1865–1950.”

Short-Term Fellows

1. Nandini Bhattacharya (University of Dundee, UK), Doan Fellow (2 months), “The Making of an Industrial Nation: A History of the Pharmaceutical and Chemical Industries in India.”
2. William Brock (Emeritus, University of Leicester, UK), Doan Fellow (1 month), “A Very Short Introduction to the History of Chemistry.”
3. Ella Butler (University of Chicago), Doan Fellow (3 months), “Producing Taste: Science and the Senses in the US Processed Food Industry.”
4. Kristin DeGhetaldi (University of Delaware), CHF Fellow (1 month), “Analytical Methods Used to Explore the Evolution from Egg to Oil Paints in Quattrocento Italy.”
5. Meredith Farmer (University of North Carolina), Allington Fellow (2 months), “Melville’s Ontology.”
6. Daniel Liu (University of Wisconsin-Madison), Price Fellow, “Molecules in Biology before Molecular Biology”
7. Apostolos Gerontas (Norwegian University in Science and Technology), Mistry Fellow (3 months), “Large-Scale Chromatography in Industrial Processing.”
8. Mathias Grote (Technische Universität Berlin), Ulliyot Scholar (2 months), “From ‘Total Synthesis’ to Synthetic Biology? Making Biomolecules with Reagents, Enzymes, and Machines, 1960s-1980s.”
9. Jeffrey Johnson (Villanova University), Haas Fellow (1 month), “From Frankenstein to Artificial Life: Historical and Cultural Perspectives.”
10. Stylianos Kampouridis (National and Kapodistrian University of Athens), Allington Fellow (1 month), “Bytes as Test Tubes: The Emergence of

Computational Quantum Chemistry.”

11. Douglass O’Reagan (University of California, Berkeley), Seidel Fellow (3 months), “Industrial Espionage, Tech Transfer, and Diplomacy in the Twentieth Century.”
12. Jason Pine (SUNY Purchase), Haas Fellow (3 months), “Meth Labs, Alchemy, and the Matter of Life.”
13. Elly Truitt (Bryn Mawr College), CHF Fellow (4 months), “A Medieval Handbook of Art and Magic.”
14. Feng-En Tu (Harvard University), Doan Fellow (1 month), “Manufacturing Reality: The Production of Modern Smells in Japan and Beyond, 1880–1945.”
15. Stephen Weininger, (Worcester Polytechnic Institute), Haas Fellow (1 month), “Paul D. Bartlett and the Intersection of Industry, War and ‘Pure’ Science.”
16. Michael Worboys, (University of Manchester, UK), Haas Fellow (1 month), “NSAIDs, Inflammation and Translational Medicine.”

FELLOWSHIPS AVAILABLE

The **Radcliffe Institute for Advanced Study at Harvard University** awards 50 funded residential fellowships each year designed to support scholars, scientists, artists, and writers of exceptional promise and demonstrated accomplishment.

For more information, please contact:

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NEWS FROM THE PROFESSION, CONT.

Relocation of IEEE History Center

After 24 years, the IEEE History Center has relocated from Rutgers University in New Brunswick, New Jersey, USA to the campus of Stevens Institute of Technology in Hoboken, New Jersey, USA, which will become the new strategic partner for IEEE in the history area.

The mission of the IEEE History Center is to preserve, research and promote the history of electrical, electronic and informational sciences and technologies. The Center maintains many resources for the historian of science or technology, for the educator, and for anyone interested in the development of electrical and computer sciences and engineering and their role in modern society. The Center is sponsored by IEEE, the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity.

Stevens Institute of Technology, The Innovation University[®], is a premier, private research university situated in Hoboken, N.J. overlooking the Manhattan skyline. Founded in 1870, technological innovation has been the hallmark and legacy of Stevens' education and research programs for more than 140 years. Within Stevens, the IEEE History Center will be affiliated with the College of Arts and Letters (CAL), the academic unit dedicated to teaching and research at the intersection of science, technology, the

humanities, and the arts. CAL maintains a strong focus on the history of science and technology and on science and technology studies.

The move will enable two organizations at the intersection of history and technoscience to take advantage of synergies and increases strategic opportunities. See more at: <http://www.stevens.edu/news/content/ieee-history-center-moves-stevens-institute-technology>

NCSA 2015 Article Prize

The Nineteenth Century Studies Association (NCSA) is pleased to announce the 2015 Article Prize, which recognizes excellence in scholarly studies from any discipline focusing on any aspect of the long 19th century (French Revolution to World War I). The winner will receive a cash award of \$500 to be presented at the Thirty-sixth Annual NCSA Conference, "Material Cultures/Material Worlds" in Boston, MA (26-28 March 2015).

Articles published between 1 Sep 2013 and 31 Aug 2014 are eligible for consideration for the 2015 prize and may be submitted by the author or the publisher of a journal, anthology, or volume containing independent essays. The submission of essays that take an interdisciplinary approach is especially encouraged. The winning article will be selected by a committee of nineteenth-century scholars representing diverse disciplines. Applicants are encouraged to attend the conference at which the prize will be awarded.

Send one PDF file electronically of published articles/essays, including the publication's name/volume/date etc. to the chair of the committee at the following email address: jmhill@unr.edu. All submissions via email will be acknowledged; queries should be addressed to Professor Jen Hill at the same email address.

Applicants must verify date of actual publication for eligibility, and one entry per scholar or publisher is allowed annually. Essays written in part or entirely in a language other than English must be accompanied by English translations. Deadline for submission is **30 Sep 2014**.

The NCSA 2015 Emerging Scholars Award

The Nineteenth Century Studies Association (NCSA) is pleased to announce the 2015 Emerging Scholars Award. The work of emerging scholars represents the promise and long-term future of interdisciplinary scholarship in 19th-century studies. In recognition of the excellent publications of this constituency of emerging scholars, this award will be given to an outstanding article or essay published within five years of the author's doctorate. Entries can be from any discipline focusing on any aspect of the long 19th century (the French Revolution to World War I); they must be published in English or be accompanied by an English translation, and must be by a single author. Submission

NEWS FROM THE PROFESSION, CONT.

of essays that are interdisciplinary is especially encouraged.

Entrants must be within five years of having received a doctorate or other terminal professional degree, and must have less than seven years of experience either in an academic career, or as a post-terminal-degree independent scholar or practicing professional.

Only articles physically published between 1 Sep 2013 and 31 Aug 2014 (even if the citation date of the journal is different) are eligible for the 2015 Emerging Scholar Award. Articles published in any scholarly journal, including on-line journals, or in edited volumes of essays are eligible and may be submitted either by the author or the publisher of a journal, anthology, or volume containing independent essays. In any given year, an applicant may submit more than one article for this award.

The winning article will be selected by a committee of nineteenth-century scholars representing diverse disciplines. Articles submitted to the NCSA Article Prize competition are ineligible for the Emerging Scholars Award.

The winner will receive \$500 to be presented at the annual NCSA Conference in Boston, Massachusetts, 26-28 Mar 2015. Prize recipients need not be members of the NCSA but are encouraged to attend the conference to receive the award. Deadline for submission is **30 Sep 2014**.

Send electronic PDF submissions to: pcroce@stetson.edu, Chair of the Emerging Scholars Award, Professor Paul Croce, Department of History, Stetson University. If necessary, three off-prints or photocopies of published articles/essays may be mailed to the committee chair. Please note that applicants must verify date of actual publication for eligibility and provide an email address so that receipt of their submissions may be acknowledged.

New Website, Publication and Data Forum Debut on Anniversary of *The Heart of the Matter*

User-Friendly Data Tools Now Available For Journalists, Scholars, Decision Makers

WWW.HUMANITIESINDICATORS.ORG



CAMBRIDGE, MA | JUNE 19, 2014 – One year following the release of its seminal report and film *The Heart of the Matter*, the American Academy of Arts & Sciences today rolls out three new research tools to help better integrate information on the humanities into the national conversation.

HumanitiesIndicators.org is significantly redesigned to provide cleaner, more direct access to a vast repository of data about the state of the humanities. While constantly updated data are now more easily found, retrieved, and explained, the rigor and transparency of the data are preserved.

The State of the Humanities: Funding 2014 draws on some of the most recent Indicators to show the array of funding sources, large and small, that underwrite the humanities, and reveal federal, state, and private support to the humanities is still recovering from the recession.

The Data Forum invites experts to contribute context, perspective, and critiques for new data that generated by the Indicators as well as by other American Academy projects. In the opening forum, experts assess new findings on foundation funding to the humanities.

In the year since the release of *The Heart of the Matter*, the American Academy's Commission on the Humanities and Social Sciences has been involved in events across the country with colleges and universities, local and state humanities councils, libraries, and historical societies, all aimed at promoting the value of the humanities and social sciences. Consistent at each venue, were requests for more readily accessible data.

"If we want this national conversation to continue and be productive, reliable, recent data are needed by journalists, scholars, opinion leaders and lawmakers," said Don Randel, Chairman

NEWS FROM THE PROFESSION, CONT.

of the American Academy of Arts & Sciences Board of Directors. “People can now find what they need on the website, in this latest funding report, and in ongoing discussions through the Data Forum.” “Over the past five years,” Randel continues, “the Humanities Indicators Project has helped to change the conversation about the humanities disciplines, from one based in anecdote to one based in data and fact. This change has been immensely helpful to scholars and policymakers. The new website, publication, and online forum are necessary next steps in the evolution of the project, as we now try to engage a broader public in matters of vital importance to our nation.”

As stated in the opening lines of *The Heart of the Matter*, “The humanities remind us where we have been and help us envision where we are going.” The tools unveiled today by The American Academy of Arts & Sciences will prove invaluable in documenting trends, identifying needs, and weighing opinions moving forward. The Academy gratefully acknowledges the financial support of The Andrew W. Mellon Foundation, primary funder of the Humanities Indicators, as well as the National Endowment for the Humanities.

Contact: Felicia Knight, 207 831 5676,
Felicia@KnightCanney.com



The American Council of Learned Societies Humanities E-Book and the History of Science Society

The American Council of Learned Societies Humanities E-Book (HEB) is a digital collection of 4,000 full-text titles offered by the American Council of Learned Societies (ACLS) in collaboration with learned societies, over 100 contributing publishers, and librarians at the University of Michigan’s Scholarly Publishing Office. The result is an online, fully searchable collection of high-quality books in the humanities, recommended and reviewed

by scholars; works that are frequently cited in the literature. Titles that have been included in HEB as a result of recommendations by the History of Science Society include *Conservation and the Gospel of Efficiency*, by Samuel Hays (University of Pittsburgh Press, 1999), *The Naturalist in Britain*, by David Elliston Allen (Princeton University Press, 1976), *The Revolt of the Engineers*, by Edwin T. Layton (Johns Hopkins University Press, 1986), *The Life Sciences in Eighteenth-Century French Thought*, by Jacques Roger (Stanford University Press, 1997), and *Franklin and Newton*, by I. Bernard Cohen (American Philosophical Society, 1956).

A full list of all the titles in the Humanities E-Book collection can be found here: <http://humanitiesebook.org/the-collection/default.html>. Another round of 353 books will be added to HEB in summer 2014. Thirty learned societies of the ACLS, including the History of Science Society, form the working group for Humanities E-Book. The societies develop lists of recommended titles in the collection, advise the directors on current issues in scholarly communication, and help publish and plan individual XML titles. Humanities E-Book is pleased to make individual subscriptions available through standing membership in any of the 72 ACLS constituent learned societies. You can find more detail on an individual HEB membership here: <http://www.humanitiesebook.org/subscriptions-pricing/individuals.html>.

THE SOCIETY: DONORS TO THE SOCIETY 2013

The list of names and organizations below represent those who have made pledges, monetary contributions, and/or other forms of support to the HSS in 2013. We wish to recognize all of those who have helped support a broad array of HSS activities.

The donations were made to the following funds:

- General Operating Fund
- General Endowment Fund
- Bibliographer's Fund
- Margaret W. Rossiter History of Women in Science Prize
- Hazen-Polsky Matching Fund (Education Fund)
- Nathan Reingold Prize
- Sponsor a Scholar Program
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- Watson Davis and Helen Miles Davis Prize
- The Elizabeth Paris Fund for Socially Engaged History and Philosophy of Science

We would especially like to thank the University of Notre Dame for its generosity in providing office space, support, graduate student workers, and other benefits to the Executive Office of the History of Science Society.

To all our donors, Thank you!

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