A squashed false leg played a role in the writing of autobiographies for objects, part of the 2007 BSHS Outreach Day.

Chlorine, curators, and a choir?

Introducing the activities of the British Society for the History of Science’s “Outreach Day.”

What happens when you mix a glass vessel of chlorine, two outstanding collections of scientific instruments and curators, a whole host of jet-lagged conference attendees, a mock trial in a courtroom, and a classical choir? Come along to “Outreach Day” in Oxford this July, and see how we get on.

Forming part of the Saturday program at the upcoming 3 Societies Conference, Outreach Day follows similar events organized at two previous British Society for the History of Science (BSHS) meetings by its revamped Outreach and Education Committee (OEC). The program of activities brings together academic historians of science attending the conference with elementary and secondary school teachers, museum curators, scientists, outreach workers, graduate students, and science communication professionals. This provides an opportunity to evaluate the current work of the OEC in introducing the history of science, technology, and medicine to new audiences. Problems with pilot projects can be identified; links with exhibitions, events, and practitioners forged; and the role of public communication in academic life highlighted—from updating Wikipedia entries to composing podcasts and hosting concerts.

History of Outreach Day

Outreach Day was inaugurated in 2006 as part of the BSHS Annual Conference. “Futures Past” brought together four presentations on topics in literature, science, and science fiction to investigate the problem of “enticing new readers with popular science.”

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George Gale Retires

George Gale served as Executive Secretary Treasurer of the Philosophy of Science Association from 1996 until December 2007. He is a Professor of Philosophy at the University of Missouri, Kansas City, where he is known as Doc Logic. The post of Executive Secretary, in both PSA and HSS, is not always duly appreciated. But these are the people whose job it is to get the meetings together. And that is quite a job. All during his time in this position, George kept up his work on Leibniz, on cosmology, and, of course, his arduous research into the history of the phylloxera wine devastation, contemporary grape growing, wine making, and beer and wine drinking.

George was responsible for getting the society’s journal, Philosophy of Science, listed on JSTOR. He set up the Science Studies Web site at UMKC, http://scistud.umkc.edu/, and worked with the then fledgling HOPOS group. He aided and abetted the transition of the journal to the University of Chicago Press, and was busy with the work that brought the HSS and PSA offices together.

He served under seven PSA Presidents, including Abner Shimony, Richard Jeffrey, Michael Friedman, John Earman, Elliot Sober, Brian Skyrms, and Larry Sklar. Sober recalls, “George was always patient and full of good cheer. Whereas minor human imperfections may make others groan, George merely smiled. And persisted.”

Perhaps though, George will be best remembered, especially by those who are good visualizers, for his outrageous Hawaiian shirts, in which he graced every meeting he ever attended.

— by Peter Machamer
History of Science Society

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Notes from the Inside

NEH Challenge Grant Finale

July 2008 marks the end of the HSS’s challenge grant from the National Endowment for the Humanities. Our goal was ambitious: raise $500,000 US in order to receive the full NEH grant of $125,000 (a four to one match), thus allowing us to endow the position of HSS Bibliographer and insure the survival of the Current Bibliography. To date, we have raised over $200,000, making us eligible for $50,000 from the NEH. When you consider that, prior to the grant, donations to the HSS typically averaged a few thousand dollars each year, this is a remarkable achievement. Although we reached our first goal but not the more ambitious full $500,000 goal, the HSS is much better off financially than we were prior to the start of the grant some four years ago. The Bibliographer endowment of over $250,000 guarantees sufficient income for current needs and helps our overall budget.

And it is not just our financial picture that is healthier; the HSS as a whole is stronger. Before we began active fund raising, we knew little about our membership beyond personal acquaintances and anecdotes. Research and surveys and conversations have given us much more information, helping us to function better as a society. More importantly, the campaign has revealed the strong sense of commitment to the HSS by our members, measured in both time and money. Space does not allow me to recognize everyone but I do want to mention here the supreme efforts and generosity of Michael Sokal, John Servos, Marc Rothenberg, Frederick Gregory, and, our Bibliographer Emeritus, John Neu. Without their commitments to the challenge grant, we would have failed by any measure.

What is next? We will continue to accept support of the C3, in hope of meeting our goal of long-term financial security for this publication. In addition, the leadership of the Society has identified several new fund-raising targets, including increased support for our graduate students and independent scholars (a goal that may become more urgent with the pending expiration of the NSF travel grant that has supported this travel for the past 15 years), a suggestion from the Women’s Caucus to offer grants to offset dependent care expenses that will allow increased participation in the annual meeting, and establishing an operations fund that will enable the HSS to consider occasional special initiatives and requests. Of course, the annual meeting continues to occupy a central place in the life of the HSS, and we are working to make it as rewarding as possible for our members.

— Jay Malone, HSS Executive Director

EDITORIAL POLICIES, ADVERTISING AND SUBMISSIONS

The History of Science Society Newsletter is published in January, April, July, and October, and sent to all individual members of the Society; those who reside outside of North America pay an additional $5 annually to cover a portion of mail charges. The Newsletter is available to nonmembers and institutions for $25 a year.

The Newsletter is edited and desktop 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”), $400; Horizontal or Vertical Half Page (7 x 4.6”), $220; Quarter page (3.5 x 4.6”), $110. 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 Michal Meyer: michal@hssonline.org.

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It was with considerable pleasure that I read the most recent Newsletter. Picking "the" highlight was a tough call. Pam Long's story, unknown to me in full, despite her sitting on my doctoral committee (and contributing much to my work), was one. Ross's call to arms was another. As a result, I just registered as a Wikipedia contributor. And, finally, I read with some slight envy the portrait of UCSB, as the rain gently fell outside my Seattle window.

- Michael Kucher
  University of Washington

I rarely save articles from the HSS Newsletter, though I did save Karen Reeds' article on Linnaeus. In January there were several great articles, but the two I have printed out to use and share are the Wikipedia and Islamic science articles. Thank you and the authors so much for these three.

- Maura C. Flannery
  St. John's University

I read Sage Ross's article on "Wikipedia and the History of Science" with pleasure, and I applaud his desire to see greater participation in Wikipedia by credentialed professionals. Although I am not apparently one of the "couple more professional scholars" whom he cites as contributing to "WikiProject History of Science" which he began last year, I have been a desultory contributor for some months past to a few Wikipedia articles about which I am knowledgeable. I even have a registered login name (Ajrocke), and a "user talk" page (every registered user gets one, by default).

Why do I do this, and why should other professionals do the same? The negatives are obvious enough. Since Wikipedia is an unrefereed forum that students trustingly consult far too much, it seems perverse to enter that world at all. If one does contribute outstanding writing or editing to an article, one receives no pay, and no credit. Why waste one's valuable time in encouraging what many consider as one of the banes of our existence as teachers and scholars?

The answer is also obvious. One might warn students against reliance on Wikipedia (as I do), and one might forbid them ever to cite it in a term paper, but it is naive to think that they will not consult it. Ross provides evidence on how much Wikipedia is used – by a very wide range of information seekers – and there is every reason to think that this trend will continue to accelerate. The more this site is used, the more important it is that the information in it be reliable. And the community of scholars in a given field is the best arbiter of reliability.

So I encourage HSS members to visit Wikipedia and look at some articles on historical material with which they are most familiar. If one encounters an egregious error, and one has a few spare minutes, fix it. The next person who consults that article, and everyone thereafter, will then encounter much better information. Multiply this single "fix" by a few hundred competent monitors – the HSS membership – and the history of science content on Wikipedia will be dramatically improved.

I began to do this out of irritation, when I happened to look at one or two really bad articles. I discovered that it is neither hard nor time-consuming to become an occasional editor.

Here are some hints.

1. If you see an article you want to fix, just click the "edit this page" tab, and go ahead and edit. Wikipedia has a few non-obvious word-processing conventions, but they are not hard to pick up just by looking at the previous editing of the page. When done, type a phrase or sentence in the "edit summary" box to tell other editors why you've made a change, and then hit "save page." If you want to look at previous edits (previous versions) of the article you're interested in, click the "history" tab at the top of the article. Don't use copyrighted material in your edits, even with appropriate citation. Supply references where appropriate.

2. Although anonymous edits are permitted, it's better always to log in with your registered user name. That way other editors can see who did what. This also gives you a user page, in which you can tell readers, as I do, who you are (and provide a link to your university Web page).

3. I've been impressed with how quickly acts of editorial vandalism and obviously incompetent edits are corrected. If you don't want your golden prose to be "reverted" to the previous version by an overly zealous editor, be sure to log in, and to say something reasonable in the "edit summary" box. You can also use the "talk page" – every article and every user page in Wikipedia has one – to weigh in. As Ross states in his article, the great majority of Wikipedia make contributions, and most of them will go out of their way to welcome you and defer to your greater knowledge. But they won't know that you are expert if you don't let them know, and may innocently think that you are not competent.

Yes, contributing to Wikipedia takes time. It can be a minute every other month, or a hundred hours a week. But whatever contributions you make will have an impact on an informational institution that is growing by leaps and bounds. That's worth doing.

- Alan Rocke
  Case Western Reserve University
Contrary to an opinion diffused even among historians and philologists, ancient scientific texts were not repeatedly impoverished every single time they were reproduced by hand... Instead, they were revised, updated and improved by including the results of the practice of science of their writers and owners.

Alain Touwaide examines a 11th-century codex at the library of St John's monastery on the island of Patmos in Greece. (All photos courtesy Alain Touwaide)

More than the Sex of Angels

Alain Touwaide is a Historian of Sciences in the Botany Department of the National Museum of Natural History at the Smithsonian Institution, Washington DC. He specializes in the history of botany, particularly medicinal plants, in the ancient cultures of the Mediterranean world from Antiquity to the dawn of modern science. The current President of the Washington Academy of Sciences, he has extensively traveled in search of manuscripts. In this essay he discusses researching the history of Byzantine science(s).

Byzantium. The very word generally evokes sophistic, if not abstruse lucubrations by Byzantine monks on such questions as the sex of angels, rather than any scientific topic. Despite this all too diffused stereotype, the field of the history of Byzantine science(s) might be among the most promising. It is true that currently available literature is not inviting. George Sanon in his monumental Introduction to the History of Science (1927-1948) devotes some three pages to the 6th century (1: 443-445) and returns to Byzantium again in the late 14th century (e.g. 3.1: 753-755; 3.2: 1438-1441). In the late 1970s, the distinguished Byzantinist from the renowned school of Vienna, Herbert Hunger, was more destructive in his treatment of Byzantine medicine when he stated in his reference work on Byzantine profane literature that "nobody will want to spend months of work in reading poorly written manuscripts in order to recover one more prescription from the jungle of iatrosophia (that is, Byzantine therapeutic manuals)" (2.304; translation is mine). Finally and to quote just a few examples, the recent encyclopedia Medieval Science, Technology and Medicine (2005) does not devote any specific entry to Byzantium and does not include Byzantine scientists. The word "Byzantium" does not even appear in the index! Be it because of such widely diffused opinions or not, the history of Byzantine science(s) is almost a terra incognita, rather than a desert with nothing to offer. The promises are commensurate with the novelty of the explorations.

An exception

In this sort of unknown continent, there is, however, a small area that is beginning to be better known: astronomy. The case is revealing: the recent Corpus des astronomes byzantins, which counts now some 10 volumes, is the product of a long tradition at the University of Louvain—now in Louvain-la-Neuve (Belgium). The story started in the 1930s with Adolphe Rome, who edited the commentaries of Theon and Pappus of Alexandria on the Almagest—a project courageously continued after World War II by Joseph Mogenet, editor of Autolycus of Pitane, and lately pursued by Anne Tihon. Little was available when Rome and
This is what the history of Byzantine science is about: manuscripts, manuscripts, and manuscripts. Mogenet first started their inquiries. The many manuscripts containing the texts they were interested in had to be traced worldwide, carefully scrutinized, and submitted to a severe critical examination. All this was done with a remarkable patience and tenacity, particularly in an age where microfilm, telecommunications, and text processing did not even exist, not to speak of the computer and digital imaging. A knowledge base was gradually accumulated, a tradition was built, and students wrote B.A. and Ph.D. theses on some fragments of text, on a specific manuscript and, sometimes also, on an astronomer who emerged from the darkness of history.

The story is interesting, not so much for its long-term investment, but rather for its method. Louvain production in the field of history of astronomy was manuscript-oriented and manuscript-based, and based on the accumulation of data so as to reach a critical mass that would be statistically representative of the discipline under consideration. This is what the history of Byzantine science is about: manuscripts, manuscripts, and manuscripts. Of course, in astronomy it is indispensable to be able to look at the stars on a nice clear night in whatever season, to juggle with the Byzantine sexagesimal system of astronomical measurement and computation, or to speculate on the supposed movements of planets and stars to compensate for the shortcomings of observation and the theoretical models built on such a basis. But this is far from the crux of the research: most important is the scrutiny of, and dialogue with, manuscripts and, even before that, the hunt for such ancient books.

The smell of the past

Searching for manuscripts is not antiquarianism -- although it might have something of that, as we shall see below -- but bringing to light books and texts that document the ancient practice of science and that, very often, have been overlooked even when not unknown. Contrary to an opinion diffused even among historians and philologists, ancient scientific texts were not repeatably impoverished every single time they were reproduced by hand, although it might have happened in some cases. Instead, they were revised, updated and improved by including the results of the practice of science of their writers and owners. Trying to find all copies of a text is thus a fundamental operation as it provides the material for a reconstruction of the dynamics that texts underwent. Sometimes, however, the search for manuscripts can take a completely different direction, becoming transformed in an antiquarian enquiry that Hercule Poirot would have liked. Codices in private collections -- and they are not as rare as the opinio communis would assume -- might be sold, repeatedly, on the antiquarian market. Following the sometimes tortuous itinerary of a single manuscript might become a fascinating search in which the protection of the privacy of owners might be a component. The recent history of the Archimedes palimpsest is just one among the many cases of this kind of investigation; maybe a spectacular one, but certainly not the only one and surely not even the one which most transformed the field its text is about.

Bringing new manuscripts to light -- be they in public libraries or in private collections -- is always an inexplicable pleasure: turning the pages of a book that might not have been opened for centuries is like entering the cabinet of an ancient scientist and looking over his shoulder while he is writing down the data collected during the day, be it in his astronomical observatory, in the hospital where he was treating patients, or in the class where he was trying to inculcate mathematical principles in young students. The person is there, imperceptible, but still living through the lines and the data collected, a suble and immaterial presence, impossible to reduce to an objective fact, but undeniably permeating the air emanated from the volume just opened. Provided, of course, that the reader allows all of his senses to be impregnated by the signs left in the book by its owner.

From the field to the lab

Just like botanists who go to the field to collect plants and then return to their lab to analyze, describe and classify them, the historian of Byzantine science(s) travels across the world to see and analyze as many manuscripts as his (or her) funding allows and then returns to his office to interpret and work on the data he collected. In best cases, he also brings in his luggage a transcription of the text of the manuscripts he has found, paged, and analyzed -- and this is why he never checks his luggage but keeps in his case this precious document! All the facts and impressions collected during the personal inspection of the manuscripts -- including the memory of the dust on the fingers, if any -- need now to be brought back to the surface of memory and to the desk of the investigator. The nature of the medium -- parchment or paper -- and its quality; watermark(s) in the case of paper; color of the ink; strength of the hand in writing with the possible hesitations and return backwards to correct it; and any other sign imperceptible to the eye of the neophyte; words deleted in the text and replaced with others; annotations, drawings and all possible additions in the margins; the binding, possibly with notes of owners and coats of arms of rich collectors and, also, in a time when books were not so abundant as today and often served as daily notebooks (particularly in the case of volumes of home medicine), the report of such family events as a birth of a child or the death of a relative;

Continued, page 12
"The Bone Trail" introduced a schools project based on nineteenth-century geological practices. In May 2006 students from two schools took part in activities that included modeling an iguanodon leg using chicken wire and Plaster of Paris, making a scale-model paper time line of earth history, and baking geological strata cakes (recipe available online). Those involved with setting-up and running the project gave commentaries, including talks on pedagogy and the history of science. Judging from the enthusiastic Outreach Day audience participation in recreating another Bone Trail activity – constructing Manchester strata from a map using bread, cheese, pickle, tomato, and jam – the educational experiment proved a success.

In 2007, Outreach Day showcased innovative approaches to communication produced within the academic world. The morning began with an exploration of how best to use Internet resources to teach the history of science – with presentations on the highly-successful Darwin and Livingstone Online sites, on the Newton Project, and on the development of Graeme Gooday's new 'Electricity Online' web tutorials initiative. Next was writing the autobiographies of objects, including a squashed false leg, a box of wooden crystals, and a bloodstained surgical saw, kindly provided by local Manchester institutions. Recreating the activities that had been developed by Alice Nicholls and the OEC as part of the "Object Stories" project, piloted at the Science Museum in March 2007, the audience threw themselves into the task with gusto, producing poems, diaries, and dramatic monologues. The discussion that followed asked questions such as how much could be learned from the objects themselves without supplementary information? Did an overtly fictional presentation diminish the claims that historians of science could make about these objects? For what age group would such activities be best suited?

The afternoon witnessed a dress rehearsal of Sabine Clarke and Terence Banks’s "Death and the City," a role play based around the 1631 York Plague, with the audience then deciding what had caused the outbreak in their city and what to do about it. The BSHS Strolling Players appeared as a range of appropriate witnesses – from the evangelizing Parson Grimsworthy and the smug physician Dr. Brightwell, to entrepreneurial cloth-merchant widow Mrs. Maria Skerwell and plague-ridden peasant Jenny Flanders - who were questioned by spectacularly-bearded aldermen, as well as the audience. This provided an invaluable opportunity for feedback before the play was performed at the British Association for the Advancement of Science Festival in September 2007.

Outreach Day 2008

The program for 3 Societies 2008 is not yet finalized, but it will include "Chlorine," a presentation of Hasok Chang and Catherine Jackson's highly successful experimental teaching methods at University College, London, in which successive classes of undergraduate students were converted into a professional community of researchers. Specific topics in the history of chlorine were given to students to investigate, with their enquiry results 'inherited' by the following year's students. As detailed in An Element of Controversy: The Life of Chlorine in Science, Medicine, Technology & War, co-written by Chang and Jackson with the student researchers as contributing authors (available from http://amazon.co.uk and via the BSHS Web site), this encouraged students to produce, as well as acquire, knowledge about the history of science.

Curators from both the Oxford Natural History Museum and the Museum for the History of Science will present a range of sessions. "The Two Debates" uses the Huxley/Wilberforce debate at the Natural History Museum in 1860 as a starting point for exploring the nature of evidence and theory in science. It asks participants, usually secondary school pupils, to select artifacts from the museum collection to help support an argument for the theory of evolution. At the Museum of the History of Science participants should be prepared to cut and paste in "Objects and Travel," with introductions to learning about scientific instruments through model-making, and even a chance to engage with real visitors. In the afternoon, the Strolling Players return to the stage to present "The Business of Bodies." A courtroom role-play exploring the issues surrounding grave robbing in Georgian Liverpool, this is the latest theatrical to be developed in association with the BAAS. The 3 Societies audience will receive a sneak preview and will also play the role of the jury in deciding whether or not to convict the alleged grave robbers. The day will also include a reception at which the winner of our 2008 "Designing Darwin" competition (see advertisement on p.13) will be announced.

And finally to the choir: we hope to host a scientific song soiree, launching the latest musical outreach project of the OEC. With the help of many in the international community of historians of science, technology, and medicine, over the past six months we have collected examples of music from a wide range of cultures, time periods, and genres. In addition to the ubiquitous Tom Lehrer "Elements" song, we've uncovered some written by well-known composers, such as Irving Berlin's warnings about the automobile, some with more obscure origins, such as the mysterious "O'Rangutan," and his concerns over evolutionary theory. We've also found some particularly appropriate ditties for this international meeting, such as the many odes to the transatlantic telegraph cable. A program of our favorites will be presented, and perhaps there'll even be a specially-written lyric or two.

Come along to Oxford and to Outreach Day, and be inspired by ways in which we can take the history of science to new audiences. You never know, you might even enjoy yourself!

- by Melanie Keene, University of Cambridge
mjk32@cam.ac.uk

For further details on the 3 Societies Conference, the OEC, and on the Chlorine monograph, visit http://www.bshs.org.uk, or join the dedicated BSHS-OEC-NEWS mailing list at http://www.jiscmail.ac.uk.
Meeting the HSS Survey: Responses and Suggestions from the 2007 Meeting

After the 2007 History of Science Society meeting in Crystal City, we asked registrants to fill out an electronic survey on the meeting. Those surveyed were asked to rate various aspects of the meeting experience, including the city, the hotel, ease of registration, the program, receptions, dinner, book exhibit, and the session rooms. HSS also asked for general comments and suggestions. Many of you were pleased with the choices made by HSS; others wished the conference had been held closer to downtown DC or in a hotel with more amenities. Without addressing all of the specific concerns of location, we want to assure our members that when the Executive Office and the Committee on Meetings and Programs decide on a location they do weigh many variables, including location, airport service and expense, convenience, amenities, and cost. Quite often the hotel that is most convenient to local attractions is also the most expensive. For 2007 we tried to get a reasonably priced hotel convenient to DC landmarks via the Metro system.

For most questions, respondents could choose between poor, below average, average, above average, excellent, and not applicable. In the city category the most popular category rating — with approximately 43 percent of respondents — was excellent. When averaged over all respondents, Crystal City came out as “above average.” Ratings for the hotel were similar, with 36.5 percent choosing “above average” and 37 percent “excellent.” The written comments that accompanied the statistical rankings generally reflected this trend, although respondents who had a negative opinion of the location were better represented in the qualitative replies than in the quantitative. While many respondents agreed with the attendee who wrote that the conference was “very well located,” with “easy access to public transportation and affordable food options,” other commenters thought that, “Crystal was too far off of town to take advantage of DC,” and the hotel had, “pompous décor, unsuitable meeting rooms, and poor, overpriced food and drink.”

Other aspects of the conference were rated equally well. Of those who registered on site, most ticked the “excellent” category. The vast majority of members rated the online registration as “above average” or “excellent.” Two thirds of respondents rated the program as “above average” or “excellent.” However, many respondents thought that too many sessions with similar themes conflicted with each other.

The response to receptions was more mixed, with almost a quarter saying it was not applicable. Almost 37 percent said the receptions were average, almost 23 percent said they were above average, and 5 percent said they were excellent. The main comment was a plea for “better food” and “open bars.”

About 72 percent of survey takers rated the book exhibit as either “average” or “above average,” with the overall average being “average.” Those who cited the book exhibit in their comments mostly liked the selection, though some wanted more publishers, but many had problems with the hours. “8 a.m. is ridiculous,” responded one member, while another wanted, “extended hours of the book exhibit... stay open late on the second to last day of the meeting and open earlier in the morning on the last day.”

Session room results were similar to the exhibit results with 43 percent reporting them “average” and 39 percent claiming they were “above average.” By far the highest number of comments on session rooms, aside from calls for “more consistent room temperature controls” and “better acoustics,” were complaints about room capacity relative to session popularity. We try to stay on top of the temperature issue, though this is usually out of our control, and we will reinforce in our instructions to session chairs to encourage speakers to use microphones. As for room scheduling, attendees can help the Executive Office with this issue. Each year we ask those who pre-register to identify which sessions they plan on attending. This helps us better match sessions to room capacities. Traditionally, however, few attendees fill out this portion of the registration form, making our predictions a little tenuous.

Only about 19 percent of respondents attended the Society Dinner. Of those attending, over 60 percent thought the dinner average or better. Many liked the addition of the jazz band, but almost everyone decried the volume of the music and/or the acoustics in the room. HSS received compliments on the idea of live music with low marks for implementation.

When it came to rating the awards ceremony, 85 percent (out of those who attended) found the separation between the awards and dinner an improvement. A little over half of respondents said they would be interested in sightseeing tours at future meetings.

Only 12.6 percent of respondents said they would apply for dependent care grants if they were available. However, of those who replied that they would not apply, many agreed that such support should be offered to those who do need it.

Finally, we asked respondents for ideas for future meeting locations. Most American cities received repeated mention. The most popular cities were St. Louis, New York, Boston, Chicago, New Orleans, Baltimore, and Atlanta. Other choices included Madison, San Juan, and Santa Fe. Many respondents asked for college towns to be included on the list of future meeting cities, with some listing specific towns like Missoula, Billings, Princeton, Austin, and Boise. Three respondents asked for cities in Europe.

— by Matthew White
HSS Research Assistant
New Osiris Editor
On the recommendation of the Committee of Publications, and after a vote by Council, the History of Science Society is pleased to announce that Andrea Rusnock has been chosen to succeed Kathy Olesko as Editor of Osiris. Her five-year term will begin on 1 January 2009. Rusnock is Associate Professor of History at the University of Rhode Island. She has published extensively in the area of science and medicine in early modern Britain and France, including her book Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France (Cambridge University Press, 2002). Rusnock not only brings to the role of editor the experience she has gained through her research, she also will draw on her knowledge of the field gained through her active involvement with Society committees. She has served as Co-Chair for the Women’s Caucus (1998-2000), on the Reingold (formerly Schuman) Prize Committee (2000-2002; chair, 2002), and on the Council (2003-2006).

Register Now for 3 Society Conference
The 3 Society (HSS, BSHS, CSHPS) Conference will be held in Keble College, Oxford, England, 4-6 July 2008. The on-line registration form is now available at http://www.bshs.org.uk/bshs/conferences/index.html. Queries regarding registration should be addressed to lucy.tetlow@bshs.org.uk. Other queries can be sent to 3Socs2008@bshs.org.uk.

Newsbrief
The HSS relies on volunteers to chair sessions of contributed papers at its annual meetings. If you are interested in filling this important role, please contact the HSS Executive Office at info@hssonline.org. Please provide contact information and your areas of expertise.

David H. DeVorkin (National Air and Space Museum) received the 2007 Herbery Feis Award for Distinguished Contributions to Public History at the 2008 AHA Meeting, held in January.

Congratulations to the following members who were recently elected fellows of the AAAS from Section L, History and Philosophy of Science: Roger Launius, Smithsonian Institution; Naomi Oreskes, University of California, Santa Barbara; Robert Richardson, University of Cincinnati.

Access to HSTM Database Changing
Access to the HSTM Database (the international bibliography for the history of science, technology, and medicine) is shifting to the Isis/Osiris home pages on the University of Chicago Press Web site. Currently, access from the HSS Web site is via: http://www.hssonline.org/reaching/reaching_database.html, which connects directly to the WorldCat Services page (http://firstsearch.oclc.org/). The user name and password are also changing. Currently, the user name and password are, “100322459” and “DAWN*SKXP” respectively. With the change, the link on the HSS Web site will take users to the log-in page via the Isis/Osiris pages. After logging in, using the log-in information supplied by UC Press, the link to the HSTM database will appear under the HSS logo. Note that only individual members of the HSS will be able to access the HSTM Database, unless their institutions have made arrangements to access the database.

Isis Change to Edited Collections
Isis will no longer publish contents lists of edited collections. This will allow more space for reviews and feature reviews. Detailed contents listings for most books are readily available on publishers’ Web sites or other online sources, and the Isis Current Bibliography continues to include citations of the relevant contents of edited collections. The complete list of books received at the Isis office will continue to appear on the HSS Web site.

Call for Proposals for 2012 British/North American Conference
The History of Science Society will host the seventh joint meeting of the British Society for the History of Science, the Canadian Society for the History and Philosophy of Science, and the History of Science Society in the summer of 2012. The HSS is seeking expressions of interest from members who would be willing to identify university campuses to serve as institutional hosts and serve on the local arrangements committee. Conference attendance averages around 300. Convenient air access for international travelers is desired, along with enough meeting space to accommodate 5 concurrent sessions (seating for 60), plenary sessions (seating for 250), and a book exhibit (approximately 3,000 square feet). The host institution should have ample dorm space and on-campus eating facilities, as well as hotels within walking distance of the meeting space. We will rely heavily on the local arrangements committee for help in funding, in organizing sightseeing trips, and in working with the host institution. The only prior U.S. meeting was held in St. Louis in 2000. Non-U.S. sites for the 3-Society meeting have included Manchester, Toronto, Edinburgh, Halifax, and Oxford. Please send expressions of interest to Jay Malone at jay@hssonline.org.
Latest on NSF Funding Information

S&S (the Science and Society program) will soon be renamed STS (the Science, Technology, and Society program). STS provides a number of distinct modes of support including doctoral dissertation research improvement grants, post-doctoral fellowships, professional development awards, scholar awards, standard grants, collaborative grants, small grants for training and research, and grants for workshops and conferences. For general information see: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf05588. For program solicitation go to: http://www.nsf.gov/div/index.jsp?div=SES The program’s annual budget for 2007-2008 is $9 million and it is projected to double over the next 10 years.

Crafting the Proposal

An effective strategy is to use a successful proposal in your research area as a model. NSF cannot release proposals upon request, but you are welcome to contact a PI to request a copy of his or her proposal. To obtain information about STS awards, search NSF's Awards Website: http://www.nsf.gov/awardsearch/.

Prospective PIs should use special care in addressing the two key criteria that NSF uses to evaluate proposals: intellectual merit and broader impact. The following supplementary document on broader impacts is useful: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

Finally, there are many common mistakes that are made in project descriptions, including failure to engage some key relevant literature, failure to map out a detailed plan of research, misplaced emphasis on background information over the proposed project, failure to explain how the results of the project will substantially contribute to the current literature or to the field, failure to explain how the results of the research will be disseminated, failure to characterize the intended audience or how the results of the research might impact teaching or the views of researchers in other areas. All proposals to STS should be submitted via FastLane: http://www.fastlane.nsf.gov

Those planning to submit proposals to STS are encouraged to request the assistance of their academic institution’s SRO (Sponsored Research Office).

The Review Process

STS cycles twice a year, 1 February and 1 August. Most proposals submitted for a specified target date arrive at NSF during the two-week period immediately preceding that date. Over a three-day period about three months after the target date, proposals are carefully discussed and then ranked by a panel of experts. Four categories are used: Must Fund, Should Fund, Could Fund, and Do Not Fund. Typically, the program recommends all “Must Fund” proposals and about half “Should Fund” proposals for funding. Within a month following the panel meeting, the program notifies most PIs by e-mail about its recommendation to either award or decline. The panel summary rarely encourages a PI in the summary to revise and resubmit; when it does, that should be taken seriously.

It takes the program about six months to put forth all award recommendations. After that recommendation is made, it takes another six weeks for it to make its way through the bureaucracy to the Division of Grants and Agreements, which makes the final decision and then issues funds. There is no guarantee that an award will be issued until the DGA makes that decision. However, once the program makes an award recommendation, it is quite rare for the DGA not to concur with that decision. Given the timeline indicated above, a reasonable start date for a grant is seven months following the target date. For further information: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501084&org=SBE&from=home.

ADVANCE grants (which serve to advance the hiring, retention and promotion of women in Science, Technology, Engineering, and Mathematics (STEM) disciplines) have been provided to a sizable number of academic institutions. It would be very beneficial for historians of science and technology to become involved in their institution's ADVANCE grants. For further information: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5383&from=fund.


OISE (Office of International Science and Engineering) encourages collaboration in all fields of science between American scholars and other scholars throughout the world. For further information: http://www.nsf.gov/div/index.jsp?div=OISE.

Finally, if you are uncertain as to whether your project is suitable for the STS program, you are welcome to send a query to fkronz@nsf.gov that includes a project summary as an attachment. The summary should be no more than one page.

- By Fred Kronz, Director
Science, Technology, and Society Program

This article is a condensed version of one that appears at http://www.hssonline.org/profession/NSF/fund.html

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Graduate and Early Career Caucus Takes Off

The inaugural meeting of the Graduate and Early Career Caucus (GECC) was held at last November's History of Science Society meeting. Founded in 2007, the GECC was created in order to build a network of relationships and resources for graduate students and early career scholars. The caucus was the product of a special 'jam session' organized by then HSS President Joan Cadden at the 2006 HSS meeting in Vancouver. During that conversation, graduate students had the opportunity to discuss the needs of historians of science who were in the final stages of doctoral programs or who had just completed their training. One outcome of this conversation was a clear mandate to create an official structure within the HSS organization that could address the needs of these scholars. With that, the GECC was born.

Dawn Digrus (Drew University) and Jacqueline Wernimont (Brown University) volunteered to act as inaugural co-chairs during the first year of the GECC. Wernimont and Digrus polled the graduate student and early career community in order to establish a set of goals for the first year of the caucus. The enthusiastic response suggested that our community needed a stable communication strategy and we needed ways to facilitate interaction as the future mission of the caucus was refined. With the invaluable help of Lynnette Regouby (University of Wisconsin) and Suzanne Fischer (University of Minnesota), a caucus blog was established (http://hssgecc.wordpress.com) to provide a center of communications and resources for the caucus, as well as to provide an easy point of entry into the community for new members. The GECC Announcements listserv was also established as a second communication avenue, designed as a 'push' technology to keep caucus members apprised of the work of the caucus council, of upcoming events of interest, and to serve as a general tool for communication among colleagues. Finally, topping off our first year of communication efforts were two face-to-face events: the inaugural meeting of the caucus at the 2007 HSS meeting, and the co-sponsored social event. The caucus has been modeled on the other official group organization within HSS, the Women's Caucus. Like the Women's Caucus, the charge of the GECC is to focus on the role and status of its membership. Similarly, the GECC council serves as a resource for the History of Science Society on the concerns of our membership. As part of our charge we will have the ongoing task of facilitating communications between student members/early career scholars and the HSS executive committee. Further, as the members have indicated, the GECC may also be the body that helps to facilitate new programs such as a mentoring program, job search sessions, and interest group events. Among the tasks for our second year will be making a formal application to the HSS Council for recognition within the HSS organization.

Attendees at the 2007 meeting discussed the need for leadership positions and we heard again the interest of the membership in developing structures for mutual social and professional support, including ways to meet early career colleagues, share experiences, and address grievances. Finally, attendees also elected five officers to guide the Caucus through its early development. Digrus, Wernimont and Suzanne Fischer (University of Minnesota) were elected as co-chairs and alternate co-chair, respectively. In addition, Lynnette Regouby (University of Wisconsin) was elected coordinator of Communications, and Taika Dahlbom (University of Turku, Finland) as coordinator of Evaluations. The leadership agreed to arrange a Web-based meeting to discuss our next steps, and to share their minutes with the rest of the caucus membership.
Notes & Records of The Royal Society gets New Editor
Under its new editor, Robert Fox, Museum of the History of Science, University of Oxford, the journal is seeking articles not relating to the Royal Society and its Fellowship, while continuing to welcome biography-related articles and those with a connection with the Royal Society. Notes and Records will now publish 4 times a year – in March, June, September and December. For further details go to: http://publishing.royalsociety.org/notes. To submit go to: http://mc ManuscriptCentral.com/nrrs or contact notes@royalsociety.org. To arrange for a 60 days’ free trial online access to Notes and Records or to request a free print sample copy, please contact trial@publishing.royalsociety.org, quoting NRRS1207.

Archival Use Survey
The University of Wyoming - American Heritage Center has received a grant to implement and test the effectiveness of new methods for making archival resources available to scholars and the public. This project seeks to streamline archival arrangement and description, so that primary source material can be made available more quickly and efficiently. To this end, we are requesting input from historians, educators, and other researchers regarding our methods. Please fill out the survey at the following link: https://survey.uwyo.edu/TakeSurvey.aspx?SurveyID=mIKH568L.

CFP: A Hundred Years of Evolutionary Psychiatry (1872-1972)
To be published in early 2010 by the journal History of Psychiatry, this special issue will explore the history of evolutionary accounts of mental disorders. It will focus on the period 1872-1972 marked by the publication of Darwin’s The Expression of the Emotions in Man and Animals and Tinbergen’s Early Childhood Autism: An Ethological Approach, respectively. Papers should be historical in nature. Scholars are invited to send a 500-word proposal to Pieter R. Adriaens at Pieter.Adriaens@hiw.kuleuven.be by 1 November 2008. Final contributions should not exceed 7,500 words inclusive of notes and references. The deadline for final submissions is 1 April 2009.

Linus Pauling and the Nature of the Chemical Bond: A Documentary History
In recognition of the 107th anniversary of Pauling’s birth, the Oregon State University Libraries Special Collections has extensively revised and expanded the Web site “Linus Pauling and the Nature of the Chemical Bond: A Documentary History.” The Web site has been updated to include over 2,500 pages of manuscripts and letters, and over four hours of audio and video. The documentary may be found at http://osulibrary.oregonstate.edu/specialcollections/coll/pauling/bond/index.html. (See page 16 for an article on the archive.)

HSS Election Goes Online
In our effort to boost election participation among HSS members, we will be offering an online ballot this year. In the past, too many members, due to the eccentricities of postage delivery, have reported that their Newsletters arrived too close to the election deadline to mail in a ballot. They will now be able to participate. Furthermore, online elections offer other advantages. Balloting will be more secure, returns will be more accurate, and the costs for paper, postage, and processing will be dramatically reduced. Many of our sister societies in the American Council of Learned Societies, including the American Historical Association, already use electronic voting and report dramatic increases in participation.

Members who have not received the e-mailed instructions for voting by 1 May, or who do not feel comfortable voting electronically, can request a paper ballot. We will be happy to send you one. Any queries should be sent to info@hssonline.org.

The following are the nominees for 2008

Nominating Committee from Council
David Kaiser (Massachusetts Institute of Technology)
Katherine A. Pandora (University of Oklahoma)
Thomas Söderqvist (University of Copenhagen)
Spencer Weart (American Institute of Physics)

Nominating Committee at Large
Katherine Anderson (York University)
John Carson (University of Michigan)
Peter Dear (Cornell University)
Bruce J. Hunt (University of Texas at Austin)
Pamela H. Smith (Columbia University)
Norton Wise (University of California, Los Angeles)

Council
Michael Gordin (Princeton University)
Darin Hayton (Haverford College)
Pamela Henson (Smithsonian Institution/American University)
Adrian Johns (University of Chicago)
William Newman (Indiana University)
Karen Reeds (Independent Scholar/Visiting Scholar, University of Pennsylvania)
Hans-Jörg Rheinberger (Max Planck Institute for the History of Science/Technical University, Berlin)
Jessica Riskin (Stanford University)
Judy Johns Schloegel (Independent Scholar)
Thomas Stapleford (University of Notre Dame)

For full biographies (including photos) and to vote, visit http://www.hssonline.org/about/societ_votes.htm, or follow the links from the main page at http://www.hssonline.org.
Container for medicines from a Roman shipwreck of the 1st century B.C./A.D. Analysis (DNA amplification) of such containers can confirm textual information as they reveal the plants actually used in ancient times.

A microscopic analysis of manuscripts indicates that, in some cases at least, Arabic-speaking physicians worked closely with their Greek-speaking colleagues. Moreover, they sometimes wrote bi-lingual lexica of plant names together, each writing the names in his own language, but both doing it in the Greek alphabet. What better indicator of a close collaboration between different groups...

The life of ancient science

Again, such micro-analyses will seem of a very limited nature, the result of Carthusian work that reminds us of the ancient exegetes of the Bible, an anachronistic practice of an archaic slowness in a time of Google Books. Again, nothing would be more inexact, because, from the accumulation of micro-phenomena gained on the basis of such analyses, the historian of Byzantine science(s) reconstructs the big picture, assembling tessel by tessel an image that emerges as a large, colorful and also contrasting mosaic. Among the many examples of
life-like pictures resulting from such tessellation, one might use
the case of Arabic medicine in Byzantium. Some articles in
previous literature mention Byzantine texts apparently based
on Arabic sources (Kouzis 1939). A systematic survey of Greek
manuscripts containing medical texts brought to light more
than 120 codices with over 70
texts presenting signs of Arabic
or Persian origin. Texts were
carefully and painstakingly
transcribed on computer from
microfilms, and the manu-
scripts containing these texts
were analyzed in situ all across
the world. As for the interpre-
tation of this phenomenon,
it needs to be framed in the
movement of translation in
the Eastern Mediterranean,
marked among others by the
assimilation of Greek science
in the Arabic world from
the 9th century onward. One
interpretation might be that
when the Byzantine empire declined not only politically and
economically, but also culturally and scientifically, it found
itself dominated by Arabic science, which, in the meantime,
had surpassed it. Such a possible interpretation based on the
idea – or an a priori – of the decline (or absence) of Byzantine
science and maybe also on the paradigm of clash of culture,
should not necessarily be accepted without reservations. A
close scrutiny of texts and their framing in their historical
context suggest indeed quite a different reconstruction. From
a macroscopic viewpoint, Arabic science seems to have been
massively present in Byzantium after the end of the disastrous
Latin empire in 1261. Yet in 1258 Baghdad was conquered
by the Mongols. The quasi simultaneity of the reconquest of
Constantinople and of the fall of Baghdad, and the sub-
sequent presence of Arabic science in Byzantium suggests
that, after 1258 and even more after 1261, Arabic scientists
left Baghdad and went to Byzantium not only in search of a
job, but also because society – particularly health services,
whatever their nature – needed
be reconstructed. A micro-
scopic analysis of manuscripts
indicates that, in some cases at
least, Arabic-speaking physi-
cians worked closely with their
Greek-speaking colleagues.
Moreover, they sometimes
wrote bi-lingual lexica of plant
names together, each writing
the names in his own language,
but both doing it in the Greek
alphabet. What better indica-
tor of a close collaboration
between different groups than
the evidence provided by these
medical texts.

In sum, the history of Byzantine science(s), although
challenging, is certainly not the vain, or absurd, discus-
sions on the sex of angels that Byzantines are supposed to
have held. The reward is commensurate with the challenge,
however, and makes it worthwhile to devote a career to such
a field where so many discoveries are still to be made that
will transform the way an entire period has to be approached.
At the same time, the promises in this field make me regret
that Byzantine science is so largely under-represented in the
history of science, and still seems a highly specialized job for
a handful of scholars threatened with extinction.

Searching for texts on pieces of paper recycled in bindings.
Bringing Science to History and History to Science

Martin Rudwick Wins Sarton Medal

As a young man, Martin Rudwick’s move from paleontology into the history of science was simple – he moved 200 meters down the street and around the corner. He brought his scientific luggage with him, and the fusion of the two has not only influenced the field but also a generation of students, both of science and of history of science. Rudwick – whose approach to history is deeply influenced by the hands-on experience of his first career – was awarded the 2007 Sarton Medal at the History of Science Society Conference held in Arlington, Virginia.

Science and history were both favorite subjects of the teenage Rudwick, but the 1940s British education system forced the 14 year old to choose between the two – he chose science. It was, he says, an agonizing decision. At Cambridge University, Rudwick continued with science, studying paleontology for his Ph.D., which was when his turn to history began. "I found myself confronting fundamental problems in paleontology, which led me in a historical direction under the influence of reading Form and Function by E. S. Russell (1916). That led me to Cuvier. I felt he had something that I – as a 20th-century paleontologist – could learn from about reconstructing the mode of life of extinct invertebrates, of brachiopods. I was imagining how these extinct animals had lived – and the relation between their way of life and their preserved structure – in order to reconstruct a complete evolutionary history of the ways of life of these now rather obscure shellfish." Too speculative, other scientists told Rudwick, since anyone’s guess is as good as any other’s. "I said ‘no’ – if you analyze the preserved structure of the animal you can make intelligent inferences about its way of life, and you can say that some inferences are much more likely to be correct than others. It’s not just speculative. It did involve a new way of thinking about the subject, but not completely new since Cuvier had done it (though on vertebrate fossils). I also had to confront hostility and opposition from paleontologists who could not think that anything good could come from someone pre-Darwin, especially an anti-evolutionist whom I was using for evolutionary purposes."

Using Cuvier for modern scientific purposes led to a curiosity about the man which then led to history of science in general. "I became more and more interested in what made Cuvier tick and how he had been such a good scientist, even though he hadn’t believed in evolution." At the same time, Gerd Buchdahl, head of the fledgling History and Philosophy of Science unit at Cambridge University, heard of Rudwick’s unorthodox historical interests and recruited him. While still maintaining his position in the geology department at Cambridge, Rudwick gave a series of lectures to HPS and geology students on the history of paleontology. This series turned into Rudwick’s first historical book, The Meaning of Fossils (1972). “In that book and most of my subsequent books I’ve tried to write both for historians and for scientists. I feel very strongly that this is what we should be doing.” The Cambridge arrangement at the time made Rudwick’s dual approach easier as many of the HPS students were majoring in science. In effect, Rudwick was teaching trainee scientists how to think historically and philosophically about science.

Other people had also heard of Rudwick’s interest in the history of geology and paleontology. At roughly the same time as the lecture series, an elderly woman living in an English village was searching for someone to assess manuscript papers she had inherited. The papers came from George Greenough, one of the founders and first president of the Geological Society in London, the world’s first private scientific society devoted to earth sciences. "Greenough was a young and wealthy man and he devoted his life to promoting geology. This woman had inherited a large chunk of his papers and wanted someone to sort through them and advise her. I was still earning my living as a geologist, but I took it on and that provided archival material never looked at before – a wonderful opportunity for me to have the first look at a very rich archive. This man had been a recipient of scientific letters from all the geologists who were of any importance and these letters provided material for several of my earliest published articles in history of science." This archival material also provided the crucial raw material for Rudwick’s second historical book, The Great Devonian Controversy (1985).

Rudwick was welcomed into the history of science fold. At the time, the field was so small that only one or two fairly
elderly geologists were publishing articles on history of geology. But it also forced a choice, similar to the one the 14-year-old Rudwick had faced. Making the choice even more difficult was that Rudwick had already made a name for himself in science. Colleagues persuaded Rudwick to apply to a faculty opening in HPS at Cambridge in 1967, even though he thought his chances slim. To his surprise, and the surprise of many others, he got the appointment. “My scientific colleagues were surprised and shocked; they regarded me as a promising young paleontologist deserting the ship to go into history. With one or two exceptions they were an unenlightened lot who thought history was something you did in your dotage when your brain was going to pieces.” The current generation of geologists and paleontologists are much more understanding, says Rudwick, who was recently president of History of the Earth Sciences Society, a group weighted towards geologists interested in history.

Certain aspects of science came with Rudwick, such as the visual emphasis to his work. As a paleontologist, words and images went together; in history of science, imagery had little place in the text-focused field of the day. *Isis*’ first-ever image on its front cover was an illustration from Rudwick’s article on geological caricature, published in that mid-1970s issue. Another science-influenced habit is that of doing historical geological fieldwork. Most historians of geology go into the field to see what the historical actors saw and then try to understand that in modern terms, says Rudwick, who views that approach as analogous to a presentist interpretation of textual sources. “I try and treat what one sees in the field as a primary source which you need not interpret in presentist ways, rather as a means of understanding why geologists came to the theoretical conclusions they came to in light of what they actually saw. Geology hasn’t changed so much, even with a modern overlay of superhighways or urbanization you can usually – with a little imagination – experience much the same phenomena of rock exposure and mountains as the historical actors.” Recently, as part of the bicentennial conference for the Geological Society, Rudwick took a group of geologists hiking around the Isle of Wight, each carrying a copy of a field report by the Society’s first paid employee, Thomas Webster. “It is to reconstruct the mind steps, as it were, of one particular early geologist,” say Rudwick.

Some historians accused him of Whiggishness. Such historians said that researchers will inevitably interpret what they see in modern terms. Rudwick disagrees: “I say one can suspend knowledge of our modern understanding in the same way one can with texts. It’s possible to analyze Harvey’s circulation of the blood without saying ‘he got this wrong, he got this right.’ In the same way one can go into the field and have much the same retinal impressions and see the same things as the historical actors. It requires an act of historical imagination.”

Currently, Rudwick is seeing through the press the sequel to *Bursting the Limits of Time* (2005); titled *Worlds before Adam*, it will be out in June this year. He plans to take things more easily in future. “I’ve been retired for getting on 10 years; retired in the sense that my income is labeled pension rather than salary, but I’ve been busy.” During a career of research and teaching in Britain, the Netherlands, the United States, Israel, France and then the United States again, Rudwick directed the graduate program in history of science at Princeton University and helped set up the interdisciplinary graduate Science Studies Program at the University of California, San Diego. He chose to retire back to England, near Cambridge, where the HPS department has given him an honorary position. He would like to go back to some of his 1960s paleontological research and treat it as a historical study. “From my own experience, if you want to think deeply enough about your science it is helpful to have a historical perspective.”

– by Michal Meyer

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**History of Medicine/Oral History**

The University of Minnesota invites applications for a full-time, twelve-month, tenure-track Assistant Professorship in the History of Medicine with special responsibilities for oral history. A Ph.D. in history of medicine or related field with special interest in the history of American academic medicine, health policy or health care institutions, as well as good interpersonal and communication skills, and a commitment to collaborative research are required. Experience in conducting and analyzing oral histories, and knowledge of oral history methodology, is desirable. The incumbent will work in partnership with the on-going collaborative effort between the Academic Health Center and the University Libraries to document and preserve the history of the University of Minnesota’s Academic Health Center.

During the duration of the oral history project, the person hired will be relieved of most teaching responsibilities and instead will be expected to devote most of her/his time to the AHC History Project: conducting oral histories with current and past members of the AHC and with other individuals whose experience is relevant to that history; editing those transcripts; and depositing them in University Archives. At the conclusion of the oral history project the incumbent will assume the ordinary teaching load of the History of Medicine Program.

The appointee will be expected to maintain an active scholarly research program and demonstrate her/his academic merit through peer-reviewed publications. Salary is competitive. The review of applications began February 25, 2008. The search will remain open until the position is filled; the start date is negotiable. Applicants should submit a letter of interest, a CV, a writing sample no longer than 25-30 pages, and the names of three references to the University of Minnesota on-line employment system, http://www1.umn.edu/ohr/. For more information, please contact Kathy Anderson anderl05@umn.edu, Staff to the Search Committee, or Jennifer Gunn, Ph.D. gunnx005@umn.edu, Chair of the Search Committee.
Special Collections at Oregon State University is best known for the Ava Helen and Linus Pauling Papers. OSU Special Collections is now making a name for itself as an innovator in digitization and accessibility. Clifford Mead, Associate Professor and Head of Special Collections, discusses the past and present of OSU’s Special Collections (and the secret of the Pauling safe), as well as the general future of digitization.

Pauling, OSU, and the Safe

Linus Pauling first noted his intentions to give his papers to Oregon State University in 1986. This was the culmination of more than 20 years of efforts by four different university presidents to persuade Pauling to give his papers to his alma mater. In 1986, we received the initial delivery of 125,000 items. During the next eight years Pauling sent us a few thousand items each year. By time of his death in August 1994, we had approximately 150,000 items in the collection. After Pauling’s death, a codicil to his will instructed that an additional 350,000 items go to Oregon State University. We had no room on campus to store this influx of materials, so we had to rent a warehouse for two years while a new addition to the library was being built.

While Pauling was alive, I would get telephone calls from Peter Pauling (Pauling’s second child; also a chemist and an office mate of Crick and Watson when they made their discovery of the double helical nature of DNA). He would say, “Pop has got a safe in the garage whose contents no other family member has ever seen.” Peter thought it had to do with secret work that Linus had done in World War II when he worked for the Office of Naval Research. He said, “It’s very important that you get this safe when Pop dies; you may even need to get a security clearance to look at some of the documents.”

When Pauling died, we were curious about whether or not we would get the safe mentioned by Peter. I had the manifest of the warehouse deliveries, but there was no mention of a safe. About two years after Pauling’s death, I was in contact with Pauling’s youngest son, Crellin, the executor of the estate, and I asked him what the family had found in the safe. He told me, “You know, we looked all over for the combination for the safe [and didn’t find it.] We finally agreed to ship it to you with the other material.”

Naturally, I was discouraged and distraught. I thought that something might have happened to the safe. I called the manager of the moving company we had employed, and asked him to look for this object. He told me there was no safe in the shipment. I reiterated that the family had said that there was. A few hours later, he telephoned and said, “Yes, we have found it!”

I asked them to deliver it to us at Oregon State immediately. Initially, I had the idea of calling up the New York Times and the major television networks to announce this discovery; but, as I thought through this, I decided maybe there was a reason Pauling had never allowed anybody, including his own family members, access to the safe. We hired a safecracker (found through the Yellow Pages). The safecracker came the next morning. He worked for about half an hour, but couldn’t crack the combination. Eventually, he drilled the lock and opened the heavy safe door. Inside, there were four filing cabinet drawers. Inside the first drawer was a large cache of letters—nearly 1,000 love letters to his wife, Ava Helen. The letters spanned nearly 60 years, from when they first met to when she died. He wrote to her every day initially—and always whenever he took a trip.

The second drawer contained a number of items that Pauling deemed sensitive. These included communications with John F. Kennedy, Albert Einstein, Ho Chi Minh, Bertrand Russell, and many others. Drawer three contained his WWII work for the Office of Naval Research, and other war departments. Included were a formula for rocket propellant, diagrams for an oxygen meter, and information on how to make a blood plasma substitute. The fourth drawer held hundreds of pocket diaries, where he recorded meetings—people he met, and things that were discussed. There were also a few hundred Dictaphone belts.
Special Collections and Digitization

There was no special collections department at Oregon State University until Pauling decided to give his papers to his alma mater. I came here in October 1986; since then, we’ve used the Pauling papers as a cornerstone to build a history of science and technology in the 20th century. We began with just a large room – now, we take up two-thirds of a floor in the library.

Thanks to digitization, no one has to physically come to the collection any more. The Special Collections staff (Chris Petersen, who had the initial vision, Ryan Wick, and myself) foresaw what could be done with the digitization of the collection, and then it was just a matter of persuading the administration to allow us the freedom to make this thing work. Over the past eight years, we’ve put up a series of award-winning Web sites and given lectures around the country on how doing digital documentary histories with narrative allows people much greater access to the collections. For example, we did our DNA Web site for the 50th anniversary of the Watson and Crick discovery (Pauling was a major player). A recently produced documentary is entitled “Linus Pauling and the International Peace Movement.” This digital collection includes archival documents and audio and video footage. Our approach has been cited as a prototype of how other special collections and archives might present their manuscripts and papers so that they are more widely available. One can also follow Pauling’s life day-by-day. The last six years we’ve spent going through every item in the collection; letters to or from Pauling, newspaper articles, photographs etc., and putting it into a matrix. By the summer of 2009 we will have completed nearly 50 years of Pauling’s career.

When we first started, people said such an undertaking was crazy—there were just too many documents. It is feasible, but you have to target your area. This means finding and getting permission from key players—individuals who own the intellectual property rights of important scientific letters to Pauling. There is also a time element involved—you must have staff people who will go out and get the permissions. Many people think there are daunting financial issues associated with putting up sophisticated digital Web sites. That’s not the case.

There is a wealth of history at nearly all archives and special collections not seen by the people who need to see them, either because of perceived expense or because people don’t know these resources exist. Even now, many people have the idea of archivists as hoarders of unique primary materials. However, as digital collections are being put up, we are now bringing in new groups of people who have never used such collections before. Institutions that control these collections are now realizing what treasures they have. Institutions entrusted with archival papers now see a responsibility to make them as widely accessible to researchers as they can, and that is through the Web. It’s a change in philosophy.

For further information, go to: http://osulibrary.oregonstate.edu/specialcollections/.

George Sarton Memorial Lecture in the History and Philosophy of Science

(This is an edited version of the introduction to Janet Browne’s lecture, given at the American Association for the Advancement of Science meeting, 16 February 2008. The introductions were made by James Fleming, Chair of Section L of AAAS, and James J. McCarthy, the president elect of AAAS. Professor Browne’s talks, “Commemorating Darwin: The History of Science Celebrations,” described the ways in which various public remembrances of Darwin’s life and work reflected the tenor of the times.)

In his first article published in Isis in 1913, George Sarton proclaimed the history of science a new discipline with a distinctive methodology. Today it is fashionable to disagree with Sarton’s methodology, based as it was on Comtean positivism, but we have to admire his vision and zeal, or at least take a lesson from it. Sarton was a crusader for the history of science. Eighty-four years ago, in 1924, he published, in conjunction with the formation of the History of Science Society, an appeal to American scholars called “The New Humanism.” Again, we may quail at his basic principles: the advance of positive knowledge and the unity of all sciences, but should not scoff at his hope that intellectual and cultural life may somehow contribute to what he called the “unity of mankind.” As a kind of secular prophet, Sarton proclaimed that the purpose for humanity was not the quest for wealth, power or luxury, but the higher pursuit of cultural and intellectual values: beauty and truth, perhaps goodness, through art and science. In an era dominated by materialism (it still is by the way) Sarton claimed that art and science are not luxuries or parasites on wealth, but are true creators of culture—the guardians of humanistic ideals.

The Sarton Lecture, which began in 1960, features a distinguished historian or scientist who can speak meaningfully to both communities. The first lecture was given by René Dubos (who coined the phrase, “think globally, act locally”). Keeping alive this great tradition, I am pleased to announce that today’s lecture will be given by historian of science and Darwin scholar, Professor Janet Browne of Harvard University.

After obtaining a degree in zoology, Professor Browne studied for a Ph.D. in the history of science at Imperial College London. Ever since then she has specialized in reassessing Charles Darwin’s work, first as associate editor of the early volumes of The Correspondence of Charles Darwin, and more recently as author of a major biographical study that integrated Darwin’s science with his life and times: Charles Darwin: Voyaging and Charles Darwin: The Power of Place. While this work was framed as a biographical study, her intention was to explore the ways in which scientific knowledge was created, distributed, and accepted, moving from private to public, as reflected in the two-volume structure of the work.

For further information, go to: http://osulibrary.oregonstate.edu/specialcollections/.
PhotoEssay (Continued from page 24)
At the Height of Empire

This past fall, I traveled to the University of Oxford in search of the papers relating to Mackinder's expedition. Rhodes House holds the most important material: the typewritten journals of the ascent along with 26 field notebooks, all neatly placed into specially form-fitted boxes. Everything was very tidy. However, the material relating to the planning and execution of the climb was a bit different. Those documents had been stored in the School of Geography, but this past summer the Library in the School of Geography merged with the Radcliffe Science Library, and several different institutions absorbed its holdings. The New Bodleian received the archives, and it was there that I experienced a quintessential archival moment. Colin Harris, the extremely helpful Superintendent of the Special Collections, wheeled in a large tin box, measuring about a foot by two feet and labeled simply "Mackinder, Esq." Plopping the trunk down on the floor, he gave a sly grin and told me to "go at it." Since they had only recently received the material, it was uncataloged, unorganized, and exactly what I needed. To my excitement, along with all the written material relating to the organization of the expedition, it also contained 73 black-and-white photographs documenting the entire journey, stretching from Mombasa to Nairobi, into the highlands of the Teliki Valley, and up to the summit. For a historian interested in verticality, it was a gold mine.

The three pictures I have included here, viewed separately, do not amount to much: a railroad running into the distance, a glacier-clad mountain, and two men on a rock. Nevertheless, taken together, they represent something much more powerful—the construction of space in the imperial mind. They depict nothing less than the horizontal and vertical organization of empire.

Historians of science, at this point, understand the myriad ways in which science and technology create horizontal space—through lines of latitude and longitude, timetables and telegraph cables, and trigonometric surveys and railroads. Indeed, railroads are the quintessential horizontal engines of empire. From the American West to the Siberian frontier, they have provided Europeans access to the world's continents. The Uganda railroad pictured here (Figure 1) was merely the latest in a long line of imperial railroads. Yet, what interested me about the photograph was not simply the impeding force of the railroad on African affairs, but rather, the manner in which the railroad opened Africa's interior plateau, a means, that is, of conquering its most fertile highland areas long known as "the white highlands." The mountain in the background is as significant as the railroad itself. Climbing Mt. Kenya, moreover, would not have been possible without the railway. Europeans, including the expeditions of Joseph Thomson in 1883, Count Teliki in 1887, and J. W. Gregory in 1893, had attempted to bag the summit without success. All had been rebuffed owing to the difficulty of gaining access to the interior highlands, a nearly impossible trek if one began on foot at the coast. Mackinder kept a close eye on the progress of the Uganda Railway when it began construction in 1895. Once it reached Nairobi in the summer of 1899, it made the mountain accessible; Mackinder dropped everything and departed for Kenya.

Mackinder climbed Mt. Kenya for several reasons. First, the climb helped him establish credibility as a geographer, a discipline still dominated by nineteenth-century notions of exploration of unknown regions. He employed the climb as a springboard for his new professorship, which he in turn used to help establish the teaching of geography in Britain as a national priority. Second, Mackinder unabashedly argued for the importance of the climb in terms of national prestige. The German geologist Hans Meyer had successfully led a party to the summit of Mt. Kilimanjaro in 1889, and Mackinder feared that the Germans would also attempt Mt. Kenya. The prize, he insisted, should go to the British. There was considerable symbolism in capturing a summit, not too different from standing on the poles of the earth. It was a means to measure geographical space, of controlling and defining the place of empire. However, such symbolic, nationalist sentiments also had practical, imperial significance. Britain was at the height of empire and Europe was engaged in a mad scramble for Africa.

Figure 2: Mount Kenya with the Tyndall glacier

There was considerable symbolism in capturing a summit, not too different from standing on the poles of the earth. It was a means to measure geographical space, of controlling and defining the place of empire. However, such symbolic, nationalist sentiments also had practical,
imperial significance. Britain was at the height of empire and Europe was engaged in a mad scramble for Africa. The partition of Africa begun in 1886 divided much of eastern Africa between Germany and Britain, but the superpowers left the western boundaries leading to the highlands of the central interior undefined. Viewed from this perspective, Mackinder's goal was to break into the great central plateau in the heart of Africa. It belonged to the larger geopolitical strategy of seizing control of the upper reaches of the Nile, the water reserve for the entire northeast of the continent. From the beginning, Mackinder viewed his voyage in these vertical, horizontal, and imperial terms.

The use of geographical space in Mackinder's journals is quite striking. It starts, like most travel journals, simply enough with the dates of the expedition: "June 8-10. We left Charing Cross by the evening mail...." The narrative continues in this manner upon his arrival in Africa and his subsequent gathering of materials, hiring of porters, and prolonged stay in Mombasa. However, these dates slowly fade to the background as he begins his journey on the Uganda railroad. The narrative is then broken up by mile markers: "Mile 297: Athi Station...." Railroad mile markers carry the narrative until Mackinder begins his trek by foot into the highlands. Then, astonishingly, neither dates nor mile markers predominate. Rather, the narrative rotates around camps I – XXII, which are in turn based on altitude. Barometric readings and boiling point measurements become more meaningful than days of the week or distance traveled. Mackinder explicitly transitions his narrative from a horizontal to a vertical plane.

Mackinder's journals follow many of the common tropes of travel narratives, mimicking especially Joseph Conrad's fictional account of Charlie Marlow's adventure into the heart of the Congo (coincidentally published the same year as Mackinder's climb). Like Marlow following the river Congo, as Mackinder travels upward, he moves further and further from "civilization," entering a supposed "savage" darkness that is both symbolic and spiritual. Lines between morality and immorality become blurred the further Mackinder travels upwards. At Mombasa, Mackinder writes, "I never saw aggressive, straight immorality. Almost all the bodies were plump and clean. -- They shave under their arms." Yet, as he gains altitude, "gradually the houses become poorer" and their owners "have not morals." The narrative thereby justified the acquisition of territory and the expansion of empire and Western civilization. But, as in Conrad's novel, events turned nasty: eight porters were "shot by orders" for insubordination near the final base camp.

Mt. Kenya has twin peaks less than twenty feet difference in height. Figure 2 shows the vertical relief of the two peaks, with the Tyndall glacier streaming prominently down its side. From this vantage point, Mackinder wrote his impression of the mountain. "What a beautiful mountain Kenya (Victoria Peak) is. Very graceful and not stern, but with a cold feminine beauty – one of the sphinx-like she's of nature. ... Suddenly the sun must have set – all the glow went and the whole scene chilled in a moment and struck one with a new – Arctic – beauty." In both name and gender, the mountain was to be subjugated for the good of Britain. Moreover, the use of the metaphors here, of the Arctic and the Sphinx, speaks an imperial world view, one where differences of geography are no longer important, where the world has become one and with the British imperial adventurer at its center. Figure 3 shows not Mackinder, but his two Alpine guides, Cesar Ollier and Joseph Brocherel, on the summit. These pictures helped me think about imperialism vertically and not just horizontally, because they demonstrate how imperialists operated in the vertical realm. Indeed, two white Europeans standing on the top of Africa's second highest peak while the continent was in the midst of partition is about as imperial a photograph as one can imagine. We need to consider this verticality when we describe how the Victorians viewed the world, how they mapped out spaces – ocean spaces and land spaces, atmospheric spaces and mining spaces, and, of course, imperial spaces of struggle and domination.

by Michael S. Reidy  
Associate Professor  
Department of History and Philosophy  
Montana State University

1 Halford John Mackinder Papers, Special Collections, New Bodleian Library, MPC/100.  
5 I would like to thank my colleagues Billy G. Smith and Carla Nappi for their helpful advice and close reading of this essay. And my colleague Robert Campbell, who not only has climbed Mt. Kenya, but also first turned me on to Mackinder. The images are reproduced with the permission and courtesy of Special Collections & Western Manuscripts, Bodleian Library, University of Oxford.
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First-circular_MOD2.htm.

Upcoming Conferences


Instability and Decomposition: 19th- and 20th Century Moments in Art, Literature, Philosophy and Technoscience. 25-26 April 2008. Contact Lambert Williams at william@fas.harvard.edu.


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Berkshire Conference of Women's Historiars. 12-15 June 2008, University of Minnesota, Minneapolis, USA. http://www.berkshireconference.org/


Annual Meeting of the Agricultural History Society. 19-21 June 2008, University of Nevada at Reno, NV, USA.


http://www.fedcan.ca/english/congress/congress.html

The following announcements have been edited for space. For full descriptions and the latest announcements, please visit our Web site (http://www.hssonline.org). The Society does not assume responsibility for the accuracy of any item; interested persons should verify all details. Those who wish to publish a future meeting in this grant announcement should send an electronic version of the posting to newsletter@hssonline.org.


Notebooks and Note-takers: da Vinci to Darwin. 17-19 July, 2008, Brisbane, Australia. For further information, visit http://www.eerc.arts.uwa.edu.au/theme_symposium_2008 or contact jones@griffith.edu.au


HSS Annual Conference. 18-22 November 2009, Phoenix, AZ, USA.

HSS Annual Conference. 4-7 November 2010, Montreal, Canada. Joint meeting with PSA.


The American Institute of Physics (AIP) seeks a Director for its Center for History of Physics, who will manage and extend AIP's history programs. The Director works closely with AIP's Niels Bohr Library & Archives, manages and edits History Center publications, including its Web site and its Newsletter. <http://www.aip.org/aip/employment/dir_hist_md.html>.

Grants, Fellowships, and Prizes

The CHF Beckman Center Visiting Scholar Program: <http://www.chemheritage.org> or e-mail: travelgrants@chemheritage.org.

The H. Richard Tyler Award for research at the AAN Rare Books Collection at the Bernardo Becker Medical Library in St. Louis, MO. Applications: <http://www.aan.com/awards>.

The University of Oklahoma: The Andrew W. Mellon Travel Fellowship Program. E-mail: kmaguder@ou.edu or mohjibvis@ou.edu. Web site: <http://libraries.ou.edu/etc/history/mellon.asp>.


INA Grant-in-Aid Program for research at the Vanderbilt University Medical Center Archives, Nashville, Tennessee. Deadlines: 1 March, 1 June, 1 September, 1 December. Send applications to: INA Grant-in-Aid Program, c/o CINP Central Office, 1608 17th Avenue South, Nashville, TN, 37212.


California Institute of Technology Grants-in-Aid. Applications reviewed 1 January, 1 April, 1 July, and 1 October each year. <http://archives.caltech.edu>.


The California Institute of Technology and the Francis Bacon Foundation requests nominations for the Francis Bacon Award in the history of science, the history of technology, or historically-engaged philosophy of science. Contact Lisa Koppel at (626) 395-3609.


"The round world is known, and more, it is accessible... Suddenly, in a sense unparalleled until within the last quarter of a century, we have taken possession of the world."

- Halford John Mackinder, ca 1900

At the height of empire, Britain had explored large swaths of the round world. Explorers had moved from the coastline to the interior of most landmasses, including North and South America, Australia and New Zealand, India, and Africa. The majority of unmapped spaces were either under water, near the poles, or on the tops of mountains. Consequently, this is where the British went. They took to the poles, they scanned the oceans' depths, and they ascended mountains on every continent. They climbed for many reasons, but the consequence, if not always the motive, was imperial acquisition. A synoptic view from the heights proved metaphorically and practically significant. Trigonometric surveys, for instance, often used peaks as points of triangulation. In short, you could "see" from the mountaintops, and once you could see, you could order and control. By the turn of the twentieth century, explorers viewed high places as high commodities.

Halford John Mackinder was one such explorer. He was a giant among imperialists in the early twentieth century and today is considered the architect of British geography. When appointed a Reader in geography at Oxford in 1887, Mackinder was the only person in all of Britain to hold such a position. He went on to become the founder and Director of the first School of Geography in Britain (Oxford, 1899), in charge of hiring the faculty and organizing the curriculum. Among numerous other accomplishments, he helped establish the London School of Economics, serving as its second Director (1903-1908), and he served as Principal of the Extension College at Reading (1892-1903) (now the University of Reading). In the midst of all this, in the summer of 1899, he led the first successful summit attempt of Mt. Kenya (17,050 ft), the second highest peak in Africa.

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