

***FUTURE PROOF III***  
***INTERNATIONAL SCIENTIFIC***  
***ARCHIVES CONFERENCE,***  
***STRASBOURG,***

***19-21 APRIL 2006***

selection

electronic environment

***INTERNATIONAL***  
scientific archives

online access

preservation

***SCIENTIFIC***

# **FUTURE PROOF III INTERNATIONAL SCIENTIFIC ARCHIVES CONFERENCE, STRASBOURG,**

————— **19-21 APRIL 2006** —————

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CASE (Cooperation of the Archives of Science in Europe) Group  
Bibliography and Documentation Commission of the IUHPS DHST  
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ACI « Patrimoine et histoire des sciences physiques à Strasbourg »

## **Address :**

**Amphithéâtre R4  
Université Louis Pasteur  
7, rue de l'université  
67 000 Strasbourg**

(see map p. 14)

## **Organised by :**

Peter Harper, NCUACS, University of Bath

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## **WEDNESDAY 19 APRIL**

» 9.15-10.00 Registration

» 10.00-10.30 Introduction to the conference

Sebastien Soubiran, University Louis Pasteur of Strasbourg

Peter Harper, NCUACS, University of Bath

» 10.30-11.00 **French Overview**

Odile Welfele, Musée des monuments français, formerly Centre National de la Recherche Scientifique, Paris

*What policy for preserving the archives of research laboratories?*

» 11.00-11.20 Coffee

» 11.20-13.10 **French Overview** (continued)

Sandrine Clerc, Institut de radioprotection et sûreté nucléaire

*The beginnings of IRSN's archives management*

Fanny Audous, Institut National de la recherche agronomique (region Paris-Centre).

*The first step in records management at INRA's centres located in Paris and its région*

Françoise Leguet-Tully, observatoire de Nice

*French provincial observatories and their scientific archives*

Scott Walter, Archives Poincaré (Nancy)

*Henri Poincaré Online: A Concrete Example of Virtual Archives*

» 13.10-14.20 Lunch

» 14.20-16.10 **Selection criteria in the preservation of scientific archives:  
what to keep and who should decide**

Anne Barrett, Imperial College London

*From Muniment Room to Cyber Space - the Changing Nature of Archival Curation.*

Tim Powell, NCUACS, Bath

*"A heap of all that I have found?"*

*Criteria for selection in the archives of modern scientists*

Menno Polack, University of Amsterdam

*Selection: a response*

» 16.30-18.00 **European collaboration**

Marie Dominique Mouton, University of Paris X (*anthropology archives*) (*sous réserve*)

Nathan Schlanger, Institut national de l'histoire d'art (*archaeological archives*) (*sous réserve*)

Ruediger Klein, European Science Foundation (ESF)

*From preservation to access: the role of European research infrastructures for the development of new perspectives in historical research (history of sciences)*

» 18.30-20.30 **Visit and reception at the Astronomical Observatory**

**THURSDAY 20 APRIL**

» 09.30-11.00 **Current projects and initiatives in Europe and beyond**

Celina Soares de Mello e Silva, Museum of Astronomy, Rio de Janeiro.

*The preservation of archives and records produced by scientific institutions in Rio de Janeiro: an overview*

Karl Grandin, Center for History of Science, Royal Swedish Academy of Sciences, Stockholm  
*Swedish Solid State Memories*

Xavier Roque, Autonomous University of Barcelona

*The relation between our archival projects and our research project on the history of physics in contemporary Spain.*

Finn Aaserud, Niels Bohr Archive, Copenhagen

*Learning from experience: reflections on scientific archives in Denmark and how to get it right the next time!*

» 11.00-11.20 Coffee

» 11.10-13.10 **The electronic environment: preserving and access issues**

Julia Sheppard, Wellcome Library, London

*Electronic environment: the experience of a research library in the digital age*

Renata Arovelius, Swedish Agricultural Sciences University

*The Swedish joint digital university archive: Results from the pilot study and outline for the future*

Jean Deken, SLAC, Stanford University, California

*Continuing Persistence: The Persistent Archives Testbed Project (PAT) at SLAC in 2005*

» 13.10-14.20 Lunch

» 14.20-15.30 **Projects in progress: short papers**

Adam Cieslak, Krakow, Poland

*Online database of private papers from Krakow's archives*

Benjamin Haspel, Tel Aviv University Israel

Anita Hollier, CERN

*E-projects at CERN*

Jordi Sequero, Centre Estudis de l'Historia de les Ciències, Autonomous University of Barcelona

*Recent progress in scientific archives at Barcelona*

Polly Tucker, Natural History Museum, London

*Development of online archives catalogue at the National History Museum*

» 16.00-17.30 **Visit to regional Archives Department**

## **FRIDAY 21 APRIL**

### » 09.30-11.00 **Electronic environment: preservation and access issues**

Jeremy Leighton John, Department of Manuscripts, Directorate of Scholarship & Collections,  
The British Library

*Evolving life cycles for digital manuscripts: sketches and notes from a digital scriptorium*

Megan Marinoff Harvard University

*Building New Audiences: Sharing Harvard's Resources Through the Open Collections Program*

Christine Blondel, Centre d'histoire des sciences et des techniques, Cité des sciences, La  
Villette

*What choices for a digitization among Ampère's 40 000 manuscript pages: Selections? Transcriptions?  
Indexes? Connections with published papers? With other documents? Editorial apparatus?*

### » 11.00-11.20 Coffee

### » 11.20-13.00 **Table Ronde and concluding remarks**

### » 13.00-14.00 Lunch

### » 14.00-15.30 **Visit to the museums and collections of the University of Strasbourg**

## **STRASBOURG TITLES AND ABSTRACTS**

### PAPERS

#### **Learning from experience: reflections on scientific archives in Denmark and how to get it right the next time!**

Dr Finn Aaserud  
Niels Bohr Archive  
Copenhagen, Denmark

In 1989 I accepted the directorship of the Niels Bohr Archive in Copenhagen after four years as Associate Historian at the American Institute of Physics Center for History of Physics in New York. My experience at the AIP infused me with the ambition to develop a national project to locate, catalogue, preserve and make available science archives in Denmark on a national scale, both as an independent project and as a pilot project for establishing similar projects in other European countries. In spite of a considerable planning effort, including discussions with international colleagues, the project never took off – partly because other tasks related to my position had to take priority, partly because of lack of enthusiasm for the proposed effort in the Danish system and partly, perhaps, because the project did not take sufficient heed of the situation into which it was presented. My talk is intended to open a discussion of what may be learned from this experience in terms of how to deal realistically with scientific archives on a local, national and European scale.

#### **The Swedish joint digital university archive: Results from the pilot study and outline for the future**

Renata Arovelius  
Head of archives  
Swedish University of Agricultural Sciences  
Uppsala, Sweden

A new working group was set up 2004 to continue work on the joint digital university archive. Included in the group's remit was the creation of a pilot study to increase experience of digital preservation. The project has been carried out at the SLU with a test of four different datasets within DSpace environment as the technical solution for archiving. Results of the pilot study have been summed up in the final report «SLU, Pilot Project: Digital Preservation of Records of Science». The working group will continue its work 2006-2007 to present a suggestion for a model of joint digital university archive including organisational and economical solutions.

## **The first step in records management at INRA's centres located in Paris and its région**

Fanny Audous  
Archivist  
INRA-Centres franciliens  
Paris, France

Founded in 1946, the French National Institute for Agricultural Research (INRA) is, since 1984, a public scientific and technical establishment under the joint authority of the Ministry of Higher Education and Research and the Ministry of Agriculture and Fisheries. This institute brings together about 8850 researchers, engineers, technicians and administrative staff, 1200 doctoral students and it is organised in 14 scientific departments and 21 regional centres. Though many actions were taken regarding the records management since the beginning of the 1990's, none of them were developed further.

In 2003, INRA employed a professional records manager for the 3 centres located in Paris and its région. That accounts approximately 1/3 of INRA's staff, the two older centres (Versailles et Jouy-en-Josas) and the head office. The records manager's mission is to lay down a policy of records management and to ensure the follow-up of the actions by respecting the legislation in place. For the last two years the main preoccupations were on the training of the head office's staff on archive's management and the treatment of administrative records. However, a strong concern is also given to oral records and written scientific records.

This presentation will begin by a short presentation of the institute and the records management plan; then the various attempts to set up records management plan and the experiences in the centres located in Paris and its région will be related.

## **From Muniment Room to Cyber Space - the Changing Nature of Archival**

Anne Barrett,  
College archivist & corporate records manager  
Imperial college  
London, United Kingdom.

A brief background/ case study of Imperial College Archives will be used to illustrate issues of selection of material from the 19th to 21st centuries.

## **Which choices for a digitization among Ampère's 40 000 manuscript pages: Selections? Transcriptions? Indexes? Connections with published papers? With other documents? Editorial apparatus?**

Christine Blondel  
Historian of science and technology  
CNRS (Centre A. Koyré – Cité des sciences et de l'industrie)  
Paris, France

On the way designing a website dedicated to Ampère and the history of electricity ([www.ampere.cnrs.fr](http://www.ampere.cnrs.fr)), I would like to share questions about this work in progress and discuss our present choices. Besides Ampère publications and correspondence, primary and secondary

bibliographies, a table of his activities at the Academy of sciences, scientific texts written by other european savants, a pedagogical space and some other sections, a series of Ampere manuscripts from the Paris Académie des sciences Archives will be available online. Taking into account the number of manuscript pages in Ampere collection – more than 40 000 – and the fact that money and time are limited, we chose to select different types of documents in order to give a view on the broad spectrum of Ampere very diverse intellectual activities. 'Non scientific' writings such as his project on a universal language, poems and tragedies, writings on psychology, philosophy, classification of sciences and natural sciences, mystic pages will complete scientific papers. Manuscripts of scientific memoirs will show processes of scientific creation and the rough design of new instruments and experiments. Some boxes will be digitized in extenso, to give the 'flavor' of the heterogeneity of the collection but at the moment of writing this abstract (Feb. 2006), future options are not all settled !

### **The beginning of archives management at the Institut de radioprotection et sûreté nucléaire (IRSN)**

Sandrine Clerc  
Archivist  
Institut de radioprotection et sûreté nucléaire  
Paris, France

Since its creation by decree n°2002-254 of february 22, 2002, the French institute for radiological protection and nuclear safety (IRSN) has realized the historical importance of its archival material. This public institution brings together more than 1500 experts and researchers from the institute for nuclear protection and safety (IPSN) and the office for protection against ionising rays (OPRI). Over the last fifty years, both organizations have collected many scientific and technical records that deal with expertise in nuclear safety, radioprotection and protection of the environment. Since 2001, some decisions have led to the creation of a first records manager team completed with the hiring of a professional records manager in 2003.

A survey was made and gave an estimation of an 11 kilometers long range of archives. After the preparations, the IRSN, with the financial collaboration of the of the french atomic energy commission (CEA) historical records unit, decided to draw up an inventory of all its records in all french sites. This challenge gave the opportunity to elaborate a huge data base including a synthetic description of each archives box and enable the institute to communicate data to historians.

This presentation will begin by a short presentation of the institute and the records managers, then the experience of the inventory will be related. It will end with all the projects to be developed in the next months.

### **Continuing Persistence: The Persistent Archives Testbed Project (PAT) at SLAC in 2005**

Jean Deken  
Archivist  
Stanford Linear Accelerator Centre  
Menlo Park CA, USA

Report on the second year of SLAC's participation in the collaboration to test the NARA



prototype persistent archives' ability to perform the functions of accessioning, arrangement, description, preservation and access on the electronic records of the SLD (SLAC Large Detector) collaboration using the Storage Resource Broker (SRB) developed by the San Diego SuperComputer Center (SDSC). Activities have included analyzing web crawls and web crawl approaches, and metadata development.

### **Swedish Solid State Memories**

Karl Grandin  
Assistant director  
Centre for History of Science, Royal Swedish Academy of Sciences  
Stockholm, Sweden.

This does not deal with an unexpected development by Sony Ericsson's Swedish branch taking up memory chip development. But it does deal with Ericsson's strong position in mobile phone systems.

I will discuss some experiences from a project that has just been completed. It was mainly an Oral History project in physics and astronomy in Sweden in the second half of the 20th century, but it also dealt with general issues of preservation of our recent history of science.

I was responsible for solid state physics, which became institutionalised around 1960 in Sweden. Swedish physics was very much moulded by the national atom energy programme, an important part of the Swedish neutrality policy at the time. Solid state physics in Sweden came to develop mainly in material physics, but as was advertised above also along other lines..

No general history of science in Sweden deals with these questions, and as everywhere else we had to deal with the plethora of archival resources that are the result of the changing material culture of science and the aggressive expansion of the scientific community during the period.

I will discuss two particular experiences, one from the planning and start phase of the project and one from the actual project itself. Finally I will make a somewhat trivial conclusion from this.

The project was sponsored by the Swedish National Bank's Tercentenary Foundation.

### **French provincial observatories and their scientific archives**

Françoise Le Guet Tully  
Astronome  
Observatoire astronomique de la Côte d'Azur  
Nice, France.

Unlike the Paris-Meudon observatory, French provincial observatories do not have specialised staff for keeping and safe-guarding their scientific archives. An indirect consequence of the national inventory of astronomical heritage launched in France in the mid 1990s has been to focus interest on archival material documenting instruments, buildings and other items. As a result, in most of the inventoried astronomical sites initiatives have been taken in order to try and set up real archival policies. We shall recall briefly the legal situation of French archives, describe the various situations encountered in provincial observatories, assess the results

achieved until now and discuss the future of these scientific archives.

This paper was prepared in collaboration with Jean Davoineau, Direction de l'Architecture et du Patrimoine, Ministère de la Culture et de la Communication, Paris, France.

### **Evolving life cycles for digital manuscripts : sketches and notes from a digital scriptorium**

Dr Jeremy Leighton John  
Department of Manuscripts, Directorate of Scholarship & Collections  
The British Library  
London, United Kingdom

This presentation considers the evolution of archival life cycles for scientific digital manuscripts, the design of a digital scriptorium, and the concept of enhanced curatorship. In principle digital information can be copied accurately, stored relatively cheaply, migrated automatically, sorted, indexed and searched powerfully and quickly, and acquired remotely. The key challenge presented to archivists by digital technology is the pace of change. There are two resulting imperatives. Firstly, in order to pre-empt information loss due to media degradation, technological obsolescence, and the active lives of the subject individuals, curators will want to approach living scientists. Consequently digital manuscripts become a potential source of current as well as historical information, making available, for example, personal compilations of scientific data, and ongoing scientific discussions of associates and close colleagues. Engaging with the living also offers the possibility of the curator creating documentary records of scientific research lives: conducting informal interviews, monitoring debates, using manuscripts actively to invoke memories and discussion, carrying out immersive photography and videos of the personal and research landscapes. Secondly, the digital manuscripts curatorial system itself needs to be able to adapt to inexorable technological advances and to match the varied characteristics of a wide-ranging scientific community. Evolutionary approaches and adaptive design strategies will likely become increasingly valuable.

### **From preservation to access : the role of European research infrastructures for the development of new perspectives in historical research (history of sciences)**

Ruediger Klein, Senior Scientific Officer Research and Foresight, European Science Foundation (ESF)

### **Building New Audiences: Sharing Harvard's Resources Through the Open Collections Program**

Megan Sniffin –Marinoff  
University archivist  
Harvard University Archives  
Cambridge, USA.

The goal of the Open Collections Program of Harvard University Library is to increase the availability of historical resources from Harvard's library, archives, and museum collections for purposes of teaching, learning, and research -- both at Harvard and around the world.

Harvard University established the Open Collections Program in 2002, with funding from The William and Flora Hewlett Foundation. The program has received subsequent support from several funders and will continue to build topic-based digital collections from across Harvard's repositories. The speaker has been involved with the program from the start, first as a contributor of manuscript materials and now as co-director of the program. She will discuss some of the challenges of managing such a project such as: inter-repository concerns and cooperation, materials selection, copyright, long-term preservation of digital objects, care and handling of materials, and sustainability. In addition, there will be a brief discussion of the third project in the program, "Contagion, Epidemics, and Infectious Diseases," which will provide digital access to selected Harvard materials from roughly the 18th, 19th, and early 20th centuries.

### **'A heap of all that I have found' ?**

#### **Criteria for selection in the archives of modern scientists**

Dr Timothy E. Powell

Senior archivist

National Cataloguing Unit for the Archives of Contemporary Scientists, University of Bath  
Bath, United Kingdom

This paper will consider decisions regarding the selection, and non-selection, for permanent preservation of personal archives of modern scientists. It will focus on this decision-making at two levels. Firstly, which collections of scientists' archives are selected in the first place, and secondly, what material within those collections is selected for retention within the collection. The paper will examine the criteria by which the selection is made, looking at factors that inform decisions, and reflect on some of the consequences of those decisions. Given the speaker's background, the paper will focus on the work of the UK's National Cataloguing Unit for the Archives of Contemporary Scientists, but most of the issues will have wider applicability.

### **Science Archives and the History of Physics in Spain-and Beyond**

Xavier Roqué

Historian of science

Centre d'Estudis d'Història de les Ciències (CEHIC)

Universitat Autònoma de Barcelona

Bellaterra (Barcelona), Spain

Science archive services in Spain have grown out of research in the History of Physics. I will briefly report about the progress and current state of our original Servei d'Arxius de Ciència ([www.sac.cat](http://www.sac.cat)) and the recently launched Archivos de Ciencia ([www.archivosdeciencia.es](http://www.archivosdeciencia.es)), and will show their organic relation to a research project on the history of 20th century physics in Spain. Besides presenting the key features of both archive services, I should like to illustrate their symbiosis with historical work in progress or recently completed. This work is informed by the view that research on local or national physics communities has a transnational, European dimension, even though this is not usually brought forward. Specific instances will include French-Spanish scientific relations under Franco's dictatorship, the birth of the high-energy physicists' community, and Spain and CERN.

## **Wellcome developments: past, present and future in the digital world of archives**

Julia Sheppard  
Head of special collections  
Wellcome Library  
London, United Kingdom.

My paper will outline the current projects with which the Wellcome Trust and Library is currently involved. I will briefly discuss digitisation and born digital archive projects including

- \* Profiles of Science Project (*with the National Library of Medicine*)
- \* UK Web Archiving Consortium
- \* Digital Curation in Action project
- \* Open Access issues
- \* Archiving e-mails

This latter task will be considered in more detail. As we see it, this task is the most technically demanding, but also one that cannot be ignored. The Wellcome Library is committed to resolving this issue, not least because we have been offered emails from Sir John Sulston relating to the genome project, and we need to be able to access and manage these satisfactorily. The Wellcome is one of many places researching these archiving issues at present: the Bodleian Library (Paradigm Project) and the National Library of Wales (Fedora project) are in discussions with us, and mention will be made of these and other organisations and related projects. I will conclude by referring to possible future steps.

## **The preservation of documents from the Ministry of Science and Technology (MCT) Laboratories: an overview**

Maria Celina Soares de Mello e Silva  
Museum of Astronomy and Related Sciences / Ministry of Science and Technology  
Rio de Janeiro, Brasil

This paper presents one of the MAST's on-going research project called "Scientific archives: production and preservation analysis of the records from science and technology in Rio de Janeiro". This project investigates the preservation of records and is being carried on specifically at the laboratories of the research institutes of the Ministry of Science and Technology at the city of Rio de Janeiro. The research is developed through the interviews and the application of a questionnaire. The purpose is to verify if the intermediary records issued by the scientific and technological activities is considered by the scientists and engineers worth being preserved. The result of this research will provide data for the elaboration of technical reports on the preservation status, as well as the establishment of procedures and recommendations for the preservation of records issued by scientific and technological laboratories.

Keywords: scientific and technological archives; intermediary records; preservation of scientific and technological archives.

## **Henri Poincaré Online: A Concrete Example of Virtual Archives**

Scott Walter  
Historian of science  
Archive Poincaré  
University of Nancy, France

The French mathematician Henri Poincaré (1854–1912) contributed significantly to the domains of analysis, topology, geometry, systems dynamics, mathematical and theoretical physics, and the philosophy of science. As a young man he rose rapidly to the highest level of the French scientific establishment, and dominated exact science in France for over a quarter-century.

Scientific interest in Poincaré's writings has never flagged, and they continue to be a source of fascination and insight for scientists and philosophers alike. In preparation for the centennial of Poincaré's birth, the French Academy of Science underwrote the publication of Poincaré's *Œuvres* (11 vols.). As for Poincaré's philosophical writings, his four books are still in print, with new editions appearing on a regular basis.

Historical interest in Poincaré's life and work, on the other hand, is a relatively recent phenomenon. There is, for example, still no adequate scientific biography of Poincaré. Up until recently, however, the whereabouts of Poincaré's Nachlass was unknown, and most other archival documents concerning Poincaré were either inaccessible due to privacy rules or well hidden. In the last decade, the situation with respect to primary sources has changed markedly, due in large part to the foundation of a research center devoted to Poincaré studies in his home town of Nancy: the Henri Poincaré Archives.

One of the main objectives of this group is the publication of a critical edition of Poincaré's correspondence in five volumes, the first of which appeared in 1999, and the second of which is due out later this year. The edition project is fortunate to have the support of the Poincaré Estate, which controls the Nachlass. In 2002, the Estate agreed to loan the entire Nachlass for the purpose of digitization, and graciously ceded copyright of the 4000 digitized images produced at that time to the Poincaré Archives.

A subset of these images forms the core of a website dedicated to Poincaré's correspondence ([www.univ-nancy2.fr/poincare/chp/](http://www.univ-nancy2.fr/poincare/chp/)). Additional digitizations of manuscripts have been obtained from the Archives of the French Academy of Science, and the Nobel Archives of the Royal Swedish Academy of Sciences. On the website, Poincaré's incoming (885) and outgoing (874) letters are presented via links from alphabetical and chronological calendars, or via links returned by a search engine that mines the full text of a large subset of annotated transcriptions (733 letters).

My talk will focus on three aspects of the electronic edition of Poincaré's correspondence: manuscript digitization, transcription for web publication, and the edition's influence on historical understanding of Poincaré and his scientific work.

## SHORT PAPERS

Adam Cieslak  
Krakow, Poland

### Online database of private papers from Krakow's archives

Benjamin Haspel  
Tel Aviv University Israel

Anita Hollier  
CERN

### E-projects at CERN

Jordi Sequero  
Centre Estudis de l'Historia de les Ciències, Autonomous University of Barcelona

### Recent progress in scientific archives at Barcelona

Polly Tucker  
Natural History Museum, London

### Development of online archives catalogue at the National History Museum

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