Chemical Intelligence

Newsletter of The Society for the History of Alchemy and Chemistry
No. 1 May 2009

Welcome to the first edition of the SHAC newsletter, *Chemical Intelligence*: a new venture aimed at connecting the scattered community of historians of alchemy and chemistry worldwide. Appearing twice yearly in May and October, the newsletter will provide a digest of forthcoming events, prizes, and funding opportunities, together with news and reports related to the field. Comments, suggestions, and submissions for inclusion in future issues are welcome from members and non members alike.

The newsletter also marks the launch of the SHAC Award Scheme and Graduate Network, offering support to postgraduate students and early career researchers through the provision of research grants and skills training. Support is also available for those organising events related to the history of alchemy and chemistry.

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1. Calendar

1.1 SHAC meetings

12 May

Joint Meeting of The Society of Apothecaries of London and the Faculty of the History and Philosophy of Medicine and Pharmacy, with The Society for the History of Alchemy and Chemistry, in association with The Royal Society of Chemistry Historical Group
2.30pm, Apothecaries' Hall, Black Friars Lane, London EC4V 6EJ

'Pharmacy in History'

The meeting is in two parts, an afternoon session commencing at 2.30pm to be followed by tea and a tour of Apothecaries' Hall. The second part will commence at 6pm with a keynote lecture by Robert Bud, to be followed by drinks. Please specify whether you wish to attend either or both parts when registering.

Afternoon speakers include: Dr A.E. Simmons; Dr P. Pormann; Dr T. Tansey.
Keynote Lecture: Dr Robert Bud: 'Wonder Drugs, technical fixes and modernity.'

No tickets will be issued. Drinks will be served after the Keynote Lecture. Full details and registration form at:
http://www.ambix.org/Pharmacy%20Meeting%20SHAC%20Flyer.doc

There is no charge for this meeting for members of SHAC.

29 June **SHAC Council Meeting**
30 Russell Square, Birkbeck College, London

November *(date tbc)* **SHAC General Meeting**
Birkbeck College, London

'Chymistry and mechanism in the 17th and 18th century'

This will be the first meeting of a Lille–London colloquium organised by Stephen Clucas (Birkbeck, University of London) and Bernard Joly (Université de Lille 3). Further details will be available in the autumn edition of *Chemical Intelligence*. Enquiries may be made to Stephen Clucas at s.clucas@english.bbk.ac.uk.

1.2 SHAC-supported events

5 May **AD HOC – History of Chemistry Discussion Group at UCL**
5.30pm – 7pm (monthly), Malet Place Engineering 1.13, University College London, Bloomsbury, London

Ad Hoc is a history of chemistry reading and discussion group, organised by Hasok Chang. It meets once a month on the first Tuesday of the month from 5.30pm – 7pm at the UCL campus in Bloomsbury. Each month several readings on a particular topic are selected. The readings are circulated 1–2 weeks in advance of the meeting. The group has been running for four years and in that time subjects for reading and discussion have ranged from the analysis of bladder stones in the 18th century to the philosophical consequences of quantum concepts of the chemical bond. Participants range from advanced undergraduate students in chemistry with an interest in history to professional historians and philosophers of science with an interest in chemistry.

The group would welcome members of SHAC who would like to join the discussions and who are able to attend on a regular basis. Please contact the group's secretary Rosie Coates at r.coates@ucl.ac.uk.

14 May **Oxford History of Chemistry Seminar 2009: 'Mastering Nature? Chemistry in History':**

'Chemical Philosophy in the 19th century'
3pm – 5pm, History Faculty, Old Boy's High School, George Street, Oxford OX1 2RL

Robert Bud (Science Museum, London), 'Using Kant, Comte and chemistry: making sense of industrial revolution and the origins of the applied science dream.'
Hasok Chang (University College, London), 'Nineteenth-century electrochemistry: selective inattention in historiography.'

Convenors: Pietro Corsi, John Christie, Robert Fox, Muriel Le Roux, John Perkins, Viviane Quirke. Further details, including directions, can be found

at http://www.history.ox.ac.uk/hsmt/histchem, or contact Prof. Corsi's secretary, Stephanie Jenkins, History Faculty, Oxford, 01865 615027, stephanie.jenkins@history.ox.ac.uk.

28 May **Oxford History of Chemistry Seminar 2009: 'Mastering Nature? Chemistry in History':**

'The German chemical industry in the 20th century'
3pm – 5pm, Maison Française d'Oxford, 2–10 Norham Road, Oxford OX2 6SE

Peter Morris (Science Museum, London), 'Making Buna: process development in the Third Reich.'
Michel Dupuy (Ecole Normale Supérieure, Paris), 'Chemists against air pollution in the GDR: between acknowledgement and impotence.'

Autumn **'Reflections on Water'**
5.15pm, Durham University (venue pending)

A year-long interdisciplinary lecture series on the theme of 'Water' will be held at Durham University, starting on 4 November 2009. The autumn programme comprises:

4 November: 'Dissolving Uncertainties in Water: electric fishes, Volta's alarm-bell, Humphry Davy, and a dynamical science', David Knight (History and Philosophy of Science, Durham University)

11 November: 'Mirror of the Sea: Reflections on the Writings of Joseph Conrad in the Age of Steam and Sail', Crosbie Smith (University of Kent)

18 November: 'Geology, Water and Engineering: the Amazing Saga of Stone Water Pipes in the British Isles, 188–1815', Hugh Torrens, (Geology, University of Keele)

25 November: 'Water' and 'H2O', Robin Hendry (Philosophy, Durham University)

2 December: 'Water an Element or Compound? Principles, Particles and Elements in the Chemical Revolution of 1789', Hasok Chang (Science & Technology Studies, University College London)

9 December: 'Water: What's so Special about it?', John Finney (Physics and Astronomy, University College London)

Further details will be provided in the autumn edition of *Chemical Intelligence*.

1.3 Other activities worldwide

14 May **'La chimie des couleurs et des teintures au XVIIIe siècle'**
9.10 am – 5.40 pm, Centre de Recherche du Château de Versailles, Château de Versailles – Pavillon de Jussieu, RP834 – 78008 Versailles Cedex

Peindre, teindre, colorer, émailler, vernir: au XVIIIe siècle, la couleur est un enjeu majeur, artistique et commercial, mais aussi technique et scientifique. Les industries du luxe et du semi-luxe, celles de la soie, des indiennes, de la tapisserie, des papiers peints, du verre, de la porcelaine, de la décoration et de la parfumerie, ainsi que beaucoup d'autres, doivent

satisfaire une clientèle de plus en plus exigeante et sensible à la qualité et l'apparence des tissus, des ameublements et des objets de consommation. Pour les métiers concernés, l'apport de la chimie devient essentiel.

Pendant tout le siècle, la recherche de nouveaux colorants, de nouveaux procédés de fixation, de nouvelles méthodes de contrôle mobilise les praticiens des couleurs, peintres, teinturiers, etc., mais aussi des inventeurs et des savants que les administrations sollicitent pour des expertises. Il en résulte une importante recherche dans les ateliers et les laboratoires et la publication sur la chimie des couleurs et l'essor d'une littérature scientifique de plus en plus abondante sur le sujet.

La journée d'études se propose d'explorer certains des aspects de cette activité chimique en la replaçant dans son contexte de production. La teinturerie, qui constitue le domaine certainement le plus étudié au XVIIIe siècle, fera l'objet d'un intérêt particulier, mais d'autres techniques de mise en couleur, impliquant d'autres matériaux et d'autres métiers, seront également abordées. L'objectif est de montrer à la fois le rôle joué par la chimie dans le perfectionnement des procédés et la place de la chimie des couleurs dans l'essor de la chimie en général au cours du XVIIIe siècle.

Matin: Anne-Françoise Garçon (CH2ST, Université Paris 1 Panthéon Sorbonne), Corine Maitte (Université de Marne-la-Vallée), Sarah Lowengard (The Cooper Union, New York), Catherine Lanoë (Université d'Orléans), Frédérique Vouvé (LERM, Arles).

Après-midi: Ursula Klein (MPWG, Berlin), Christine Lehman (Université Paris Ouest), Bruno Belhoste (CH2ST, Université Paris 1, Panthéon Sorbonne), Sacha Tomic (CH2ST, Université Paris 1 Panthéon Sorbonne), Liliane Hilaire Pérez (CDHT, Cnam).

Cette journée d'étude n'est pas ouverte au public. Organisée par Bruno Belhoste, Anne-Françoise Garçon et Sacha Tomic.

20 – 26 May **L'alchimiste à l'oeuvre : recettes, produits simples et composés, appareils**
Séminaire pluridisciplinaire et international sur la formation et le développement du savoir alchimique pratique médiéval.

Le séminaire s'insérera dans des problématiques liées à l'histoire de la pharmacopée, de la pharmacie, de la chimie, de la métallurgie, de la céramique mais aussi à celle de la littérature des recettes. Il servira de support à des travaux de recherches convergents sur les produits et les procédés décrits dans les recettes liées à la transmutation de la matière:

20 May *9.30am – 12pm, 2pm – 5pm, Salle de conférence, MSH Ange Guépin, 5 allée Jacques Berque, Nantes*

Patricia Gaillard (Université d'Angers): 'La pharmacopée dans l'Antiquité classique.'
Matteo Martelli (Université de Pise): 'Recettes grecques et syriaques attribuées à Démocrite.'
Nicolas Drocourt (Université de Nantes): 'Transferts culturels entre Byzance et Occident chrétien (VIIIeXIIe s.).'
Antony Vinciguerra (Université de Nantes): 'Recettes latines de la *Mappae clavicula* et du *Liber sacerdotum*.'
Franck Collard (Université de Paris 10): 'Poisons *ab arte procurata* : connaissance des recettes, ingrédients, procédés, efficience.'

23 May *10am – 12.30pm, 2pm – 4pm, Centre des Grands Moulins, 5 rue Thomas Mann, Paris 13e*

Bink Hallum (Warburg Institute): 'The Recipes in *The Sulphurs* of Zosimos of Panopolis.'
Mernaz Katouzian-Safadi (Université de Paris 7 – CHSPAM): 'Procédés et produits dans les recettes de médicaments composés : études de textes liés à al-Razi.'
Meyssa ben Saad (Université de Paris 7): 'Les vertus des animaux merveilleux chez Al-Jâhiz.'
Gabriele Ferrario (Chemical Heritage Foundation): 'Arabic recipes and the *Book of alums and salts.*'

26 May *1.30pm – 5pm, Salle 107, Centre Malher, 9 rue Malher, Paris 4e*

Paul Benoit (prof. émérite, Université Paris 1 – LAMOP): 'Introduction à l'histoire des techniques au Moyen Age.'
Antony Vinciguerra (Université de Nantes): 'Les représentations d'appareils dans les manuscrits alchimiques.'
Nicolas Thomas (INRAP): 'Archéologie et métallurgie dans l'Occident médiéval.'
Pierre Siméon (anc. Université de Paris 1): 'De l'Iraq à l'Asie centrale médiévale: remarques sur les oxydes modificateurs et les données archéologiques.'

Direction scientifique: Antony Vinciguerra (CRHIA – Centre Viète – Univ. de Nantes) et Virginie Champeau (Centre Viète – GHSDO – Univ. Paris 11).
Coordination du seminaire: Antony Vinciguerra (antony.vinci@wanadoo.fr).
Further details at: www.msh.univ-nantes.fr/86183525/0/fiche article/&RH=1162146756938.

12 – 13 June **Composition to Commerce: Chemistry, History, and the Wider World**
Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

The history of chemistry has a long and distinguished lineage of chemist/historian practitioners. The professionalization of the history of science in the second half of the 20th century brought a concomitant broadening of historical purview and, today, historians of chemistry pursue a rich array of research topics ranging from medieval and early modern chymistry to contemporary nanotechnology and from laboratory and industrial practice to the functions and challenges of chemistry in the public sphere.

"Composition to Commerce: Chemistry, History, and the Wider World" is intended to bring together some of the leading scholars of the history of chemistry both to present the fruits of their current research and to reflect on how their work relates to general themes in the recent historiography of chemistry and science.

Friday 12 June will feature the sessions "Chemistry as Technoscience" and "Material Culture of the Chemical Laboratory." The evening will conclude with a general reception for all participants. Speakers include Ursula Klein (Max Planck Institute for the History of Science), Bernadette Bensaude-Vincent (Université Paris-X Nanterre), Marco Beretta (University of Bologna), and Carsten Reinhardt (Universität Bielefeld).

Saturday 13 June will feature the sessions "Alchemical/Chemical Practices In The Study And The Classroom," "Chemists and Society in the 18th Century," and "Chemistry in a Broader Context." Speakers include William Newman (Indiana University), Matthew Eddy (Durham University), Lissa Roberts (University of Twente), Mi Gyung Kim (North Carolina State University), Alan Rocke (Case Western Reserve University), and Kathryn Steen (Drexel University), with a keynote talk by Seymour Mauskopf (Duke University).

The conference is free, but registration is required. Further details can be found at http://www.chemheritage.org/events/event-detail.asp?id=445. For queries regarding conference content, contact Ronald Brashear, 215-873-8284, rbrashear@chemheritage.org. For logistical information, contact Nancy Vonanda, 215-873-8226, nvonanda@chemheritage.org.

28 July – 2 August

23rd International Congress of History of Science and Technology (23rd ICHST)
Corvinus University of Budapest, Fovám tér 8, H-1093 Budapest, Hungary

The 23rd International Congress of History of Science and Technology (23rd ICHST) will be held in Budapest, Hungary. At this Congress hundreds of historians of science and technology will meet around the central congress theme 'Ideas and Instruments in Social Context.' During the Congress the Commission for the History of Modern Chemistry will organize a one day symposium on 'Chemistry in the Aftermath of World Wars' (further details at http://uni-regensburg.de/Fakultaeten/phil_Fak_I/Philosophie Wissenschaftgeschichte/CHMC_2009.pdf). There will be also other sessions on the history of chemistry, and the event is immediately followed by the 7th ICHC (see below). Historians of chemistry therefore have the interesting option of attending several major events during one visit to Hungary.

Further details at http://www.conferences.hu/ichs09/, or e-mail ichst09@conferences.hu.

2 – 5 August

The 7th International Conference on History of Chemistry (7th ICHC)
Hotel Sopron, H-9400 Sopron, Fövényverem utca 7, Hungary

The Working Party (WP) on History of Chemistry of the European Association for Chemical and Molecular Sciences (EuCheMS) will hold its bi-annual International Conference on History of Chemistry (7th ICHC) in Sopron, Hungary, from 2 – 5 August 2009.

The 7th ICHC will focus on the theme of 'Consumers and Experts: the uses of chemistry (and alchemy)', which covers both the practical uses of chemistry and the cultural consumption of chemistry. A major aim of the conferences organised by the WP is to facilitate communication between historically interested chemists and historians of chemistry from all over Europe. Previous conferences organised by the Working Party were held in Budapest in September 2003 ('Communication in Chemistry in Europe'), Lisbon in September 2005 ('Chemistry, Technology and Society') and Leuven in August 2007 ('Neighbours and Territories: The Evolving Identity of Chemistry').

Further details at http://www.chemhist2009.mke.org.hu/content/view/2/3/, or e-mail Beatrix Schenker at chemhist2009@mke.org.hu.

13 – 15 August

International Society for the Philosophy of Chemistry 2009 Summer Symposium

Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

The ISPC Summer Symposium is an interdisciplinary conference held every August as part of the International Society for the Philosophy of Chemistry's mission to promote the "international exchange of ideas concerning the philosophical foundations of the chemical sciences and related areas." The symposium is geared to philosophers, chemists, biochemists, historians, sociologists, educators and others who are interested in this dynamic and developing field.

Special plenary sessions will include talks by Professor Jay S Siegel, Chair of the Organisch-chemisches Institut at Universität Zürich in Switzerland, and Roald Hoffmann, Frank H. T. Rhodes Professor of Humane Letters, Cornell University and winner of the 1981 Nobel Prize in chemistry.

Registration is required. Further details can be found at http://www.chemheritage.org/events/event-detail.asp?id=462. For queries regarding conference content, contact Michael Weisberg, 215-898-0417, weisberg@phil.upenn.edu. For logistical information, contact Nancy Vonanda, 215-873-8226, nvonanda@chemheritage.org.

2. Calls for papers

21 – 22 September

The John Dee Quatercentenary Conference

School of Pythagoras, St John's College, Cambridge

2009 marks the quatercentary of the death of the great Elizabethan polymath, John Dee (1527–1609). This interdisciplinary conference will commemorate the occasion by bringing together scholars and students from a range of fields, including intellectual and cultural history, history of science and mathematics, literature, and history of the book, to consider the extraordinary range of Dee's interests and enterprises.

The conference is hosted by Dee's old Cambridge college, St John's, and will include the opportunity to visit the Old Library and examine some of Dee's own books, under the guidance of Julian Roberts, co-editor of *John Dee's Library Catalogue*. Confirmed speakers include Stephen Clucas (Birkbeck, University of London) and Nicholas Clulee (Frostburg State University).

The John Dee Quatercentenary Conference welcomes papers which investigate all aspects of Dee's rich intellectual life, including his interest in mathematics, astronomy and astrology, navigation, and calendar reform; his fascination with alchemy, magic, and divination; his achievement in building Renaissance England's greatest library, and the importance of this library in serving a wider intellectual community in early modern Europe. We are particularly keen to invite contributions from graduate students and postdoctoral researchers, and bursaries will be available to support students attending and giving papers.

300 word abstracts should be sent via e-mail to Jennifer Rampling (Department of History and Philosophy of Science, Cambridge) at jmr82@cam.ac.uk, by **30 June 2009**.

1–15 August 2010

TICCIH/ICOHTEC Joint Conference
'Reusing the Industrial Past'
University of Tampere, Finland

TICCIH – The International Committee for the Conservation of the Industrial Heritage and ICOHTEC – The International Committee for the for the History of Technology History are organising a joint conference at Tampere, Finland from 10–15 August 2010. The programme of the conference will include scientific sessions and plenary sessions, business meetings and general assemblies of organising organisations, excursions, social events, such as receptions and the banquet, and possible pre- and post-conference trips. The premises of the University of Tampere and the historical industrial buildings on the in the City Centrum will serve as conference venues.

As a joint conference, the primary theme 'Reusing the Industrial Past' is intended to be a broad idea covering various approaches. Clearly, the industrial past is reused whenever old industrial installations are renovated or adapted. There have been many attempts to preserve the most significant aspects of old industrial areas after productive activity has ceased, by giving them a new viable function. However, the idea of reusing the industrial past need not stop there.

Old industrial and handicraft technology can also be reintroduced and reused in manufacturing various products or in explaining how they work to the public in exhibitions. Various kinds of 'retroproducts' are now in vogue, while people are looking for alternative technological solutions for plastics, electronics, concrete, artificial chemicals and fertilisers. Knowledge of old technologies is in demand. What technologies do historians suggest could be reused?

Further details, including conference sub-themes, are available on the website, http://www.tampere.fi/icohtecticcih2010/conference.html.

Proposal guidelines

We urge contributors to consider organizing a full session of three or more papers. Individual paper submissions will, of course, be considered (membership of ICOHTEC, TICCIH, or WORKLAB is not required to participate in the conference). INDIVIDUAL PAPER proposals must include: (1) a 250 word (maximum) abstract in English; and (2) a one-page CV. Abstracts should include the author's name and e-mail address, a short descriptive title, a concise statement of the thesis, a brief discussion of the sources, and a summary of the major conclusions. Please indicate one of the specified sub-themes for your paper.

The final deadline for all submissions is **Monday 16 November 2009**.

If web access is unavailable, proposals may be sent by fax to ICOHTEC 2010 at: +358 (0) 3 5656 6808. Otherwise they may be sent via regular mail or courier, postmarked not later than 9 November 2009, to: ICOHTEC 2010, c/o Museum Centre Vapriikki, PL 487, Alaverstaanraitti 5, 33101 Tampere, Finland.

All questions about the programme proposals and conference venue should be submitted to the local organizing committee, icohtecticcih2010@tampere.fi.

3. Grants, prizes, fellowships

3.1 SHAC grants and prizes

Society for the History of Alchemy and Chemistry Award Scheme

Closing date for applications: 31 May 2009

The Society for the History of Alchemy and Chemistry would like to invite applications for its new award scheme for 2009. Two types of award are available: support for research into the history of chemistry or history of alchemy by **New Scholars** and support for **Subject Development** of either history of chemistry or history of alchemy.

The **New Scholars** Award is open to postgraduate students (both masters and doctoral students) and those who have obtained a PhD within five years of 1 January of the year in which the application is made. Awards of up to £500 will be made to cover research expenses, including travel, accommodation, subsistence, the reproduction of documents, and library fees. Applications may also include the costs of reproducing images for publication. The scheme will not fund the purchase of equipment or course fees.

In addition, postgraduate students only may apply for the costs of travel to conferences and accommodation, but only in order to give a paper. The scheme will not pay conference registration fees.

Subject Development awards of up to £1000 will be made to support activities including, but not limited to, seminars, workshops, colloquia, lecture series, conference sessions, conferences, exhibitions and outreach activities that support either the history of chemistry or history of alchemy as academic subjects.

Only members of the Society, both those in the UK and those overseas, may apply. Members must be in good standing at the time of making an application, and, if successful, throughout the period of an award. For more information, and an application form, please contact the Hon Secretary to the Society, Dr Georgette Taylor, at g.taylor@ucl.ac.uk. Membership enquiries to the Hon Treasurer of the Society, John Perkins at shacperkins@google-mail.com.

2009 Morris Award of the The Society for the History of Alchemy and Chemistry

Closing date for nominations: 1 June 2009

The Society for the History of Alchemy and Chemistry solicits nominations for the 2009 John and Martha Morris Award for Outstanding Achievement in the History of Modern Chemistry or the History of the Chemical Industry. This award, which will be presented for the first time in 2009, honours the memory of John and Martha Morris, the late parents of Peter Morris, editor of Ambix, who has contributed the endowment.

The Morris Award is administered by a sub-committee on behalf of SHAC. The nominee chosen to receive the Morris Award will be expected to deliver a lecture at a meeting of SHAC, where they will be presented with an appropriate framed photograph, picture or document and the sum of £300. The award is international in scope, and nominations are invited from anywhere in the world.

A complete nomination consists of:

- a full curriculum vitae for the nominee, including biographical data, educational background, awards, honours, list of publications, and other service to the profession;
- a letter of nomination summarising the nominee's achievements in the field of history of modern chemistry and/or the history of the chemical industry and citing unique contributions that merit this award; and
- two or more seconding letters.

Only complete nominations will be considered for the award and the nomination documents must be submitted in electronic form.

All nomination materials should be submitted **by e-mail** to Peter Morris at peter.morris@nmsi.ac.uk and a separate e-mail which indicates that the material has been submitted should be sent to the same address (a precaution in case of incomplete transmission of documents) for arrival no later than 1 June 2009.

3.2 Other grants, prizes and fellowships

2010 Paul Bunge Prize of the German Chemical Society / Gesellschaft Deutscher Chemiker

Closing date for nominations: 30 September 2009

The German Chemical Society (Gesellschaft Deutscher Chemiker) extends an invitation for international applications for the Paul Bunge Prize 2010, awarded by the Hans R. Jenemann Foundation, which is administered by the German Chemical Society and the German Bunsen Society for Physical Chemistry (Deutsche Bunsen-Gesellschaft für Physikalische Chemie).

The prize is endowed with 7500 Euro and honours outstanding publications in German, English or French in all fields of the history of scientific instruments. In addition to the scientific work, applications should also include a curriculum vitae and a list of publications. The deadline for nominations and self-nominations is September 30, 2009. The Advisory Board of the Hans R. Jenemann Foundation will decide on the prize winner.

The prize is named after the most important designer of analytical, assay and high-performance precision balances in the second half of the 19th century, Paul Bunge. It will be awarded in May 2010 on the occasion of the conference of the Deutsche Bunsen-Gesellschaft für Physikalische Chemie in Bielefeld.

Please submit your nominations by September 30, 2009, to

Gesellschaft Deutscher Chemiker
Barbara Köhler, b.koehler@gdch.de
Varrentrappstr. 40–42
60486 Frankfurt/Main
Germany

2008 Franklin–Lavoisier Prize: Robin Clark

The Chemical Heritage Foundation (CHF) and the Fondation de la Maison de la Chimie (FMC) presented the inaugural Franklin–Lavoisier Prize to **Robin Clark** on 28 January 2009 at La Maison de la Chimie in Paris, France.

Robin J. H. Clark is Sir William Ramsay Professor Emeritus of Chemistry and former Dean of Science at University College London. He studied at the Universities of Canterbury and Otago and received a Ph.D. in inorganic chemistry at University College London. His research in inorganic chemistry and

spectroscopy—more recently on metal–metal bonded complexes; mixed-valence chemistry; infrared, Raman and resonance Raman spectroscopy; matrix isolation spectroscopy; spectroelectrochemistry; and pigment studies mainly by Raman microscopy—has led to the publication of more than 500 scientific papers, 3 books, and 36 edited books.

Clark has held visiting professorships in 11 countries and has lectured at over 350 universities and institutions in 36 countries throughout the world. He has served on many national committees, including the councils of the Royal Society, the Royal Institution of Great Britain, University College London, and the Senate of the University of London. He has chaired the Steering Committee of the International Conferences on Raman Spectroscopy.

In 1989 Clark was elected an Honorary Fellow of the Royal Society of New Zealand. He was named a Fellow of the Royal Society of London and a member of the Academia Europaea in 1990, a Fellow of University College London in 1992, an Honorary Life Fellow of the Royal Institution of Great Britain in 2004, and a Foreign Fellow of the National Academy of Sciences, India, in 2007. He received an honorary D.Sc. from the University of Canterbury in 2001 and, in 2004, he was appointed a Companion of the New Zealand Order of Merit for services to science. In 2008 he gave the Bakerian lecture, the Royal Society's premier annual Prize Lecture in the physical sciences.

About the Franklin–Lavoisier Prize

Created in 2008, the Franklin–Lavoisier Prize is jointly awarded by the Fondation de la Maison de la Chimie (FMC) in Paris and the Chemical Heritage Foundation (CHF). Named for Antoine-Laurent Lavoisier and Benjamin Franklin, two of the 18th century's greatest minds, this prize recognizes unusually meritorious efforts in the preservation or promotion of the entwined scientific heritage of France and the United States.

The purpose of the award is to acknowledge commendable work in

- the preservation and highlighting of any aspect of our common scientific or industrial heritage in the fields of chemistry and its related applications,
- the promotion of the history of the chemical and molecular sciences and industries, or
- the fostering of closer Franco-American ties and the promotion of significant activities in the chemical sciences or industries.

FMC and CHF also seek to promote public understanding of Franco-American relations in modern and historical science, industry, and economics.

Accompanied by a monetary award of €15,000, the Franklin–Lavoisier Prize is awarded every two years by a five-member international jury. Award ceremonies will take place alternately in the United States and France.

Nominations and Information

For more information on the Franklin–Lavoisier Prize, or to find out how to nominate someone for this award, send an e-mail to awards@chemheritage.org.

4. SHAC Graduate Network

SHAC Graduate Workshop in the History of Chemistry

To stimulate research into the history of alchemy and chemistry both in the UK and overseas, this year SHAC launches its Graduate Network to bring together masters and PhD students, and those who have recently completed. As part of this scheme postgraduate students and early career researchers are eligible to apply for grants towards the cost of research (the **New Scholars** Award, section 3.1 above). In autumn 2009 the Society will also hold its first graduate student workshop on methods, sources and approaches in the history of alchemy and chemistry, to take place in Cambridge. It is intended that this event will alternate with a postgraduate symposium held every other year.

For further details on the Graduate Network and the autumn workshop, please contact Jennifer Rampling at jmr82@cam.ac.uk.

5. Reports

5.1 SHAC events

December 2008: "The Scottish Chemical Diaspora"
The Society for the History of Alchemy and Chemistry

On Saturday 13 December, the Society for the History of Alchemy and Chemistry held a meeting at Birkbeck College, Malet Street, London. The meeting was entitled "The Scottish Chemical Diaspora". Following the meeting, the Society's Partington Prize was presented to its joint winners, Jennifer Rampling and Georgette Taylor.

The meeting was introduced by the Society's Chairman, Dr Robert Anderson, with a discussion of the notion of diaspora as applied to the history of chemistry and how we might, as historians, seek to investigate such a phenomenon. As he put it, "how many Scots does it take to make a disapora?" Was there indeed such an effect, and if there was, how significant was it? Were there long term effects on the science and can we, as historians, trace these? Dr Anderson suggested that we might find three phases of diaspora, the first the effect of the Act of Union of 1707, the second post 1726, where the medical school of the University of Edinburgh sought to stem the flow of students leaving Scotland for Leiden, and a third phase where these Scottish trained medical students found posts teaching chemistry in English and foreign universities. He mentioned in particular the strong links between UCL's chemistry department and Edinburgh. He concluded that we might legitimately point to some effect of diaspora in the fact that neither the Glasgow nor the Edinburgh Chairs of Chemistry were held by non Scots until the 20th century. There was, he suggested, a unidirectional flow of chemistry from Scotland out into the wider world and this might well be described as 'diaspora'.

The first paper was given by Dr Georgette Taylor and was entitled "Chemistry translated from Scotland to London: George Fordyce's modifications to William Cullen's chemical pedagogy." This paper offered a case study of the translation of William Cullen's philosophical chemistry from Edinburgh to London, through one of Cullen's early students, George Fordyce. Fordyce graduated MD at the University of Edinburgh in 1758, and almost immediately moved to London and began to give courses on chemistry in his house in Essex Street. He continued to teach his course for almost thirty years and it is certainly possible to argue that he was in this way extremely influential upon the course of the science. Dr Taylor gave an

account of the structure of Cullen's chemistry course, noting particular features of his philosophical chemistry, in particular the role of his affinity theory in his pedagogy. Affinity was used to structure his chemistry course as well as to explain and to justify the chemist's actions. Dr Taylor gave an account of a correspondence between Fordyce and Cullen that took place soon after Fordyce left Edinburgh. This was initiated by Fordyce, who sent his old master a draft paper (intended for the Royal Society) setting out a novel way of dealing with complex chemical combinations. Over an exchange of letters, Fordyce endeavoured (and failed) to persuade Cullen that his own somewhat tortuous methodology was an improvement on Cullen's teachings. Diasporic relations were, in this case at least, characterised more by a continuing relationship rather than a straightforward dispersion. She then compared Cullen's course with notes of Fordyce's courses from early in his lecturing career and much later, showing that while the emphasis on affinity, and much of the broad structure of Cullen's course was indeed 'translated' to his London courses, Fordyce's courses diverged from those of his old master in a number of theoretical aspects. In particular, where Cullen had argued that it was inappropriate to include speculations on the ultimate nature of matter, Fordyce introduced a complex and innovative matter theory, focused on what he called 'chemical elements' and the union of individual particles of such elements, a feature which, as many present immediately noticed, unavoidably evoked the Daltonian future of such speculations. Thus the 'translation' of Cullen's philosophical chemistry to London by George Fordyce was characterised by an instructive blend of continuity and contradiction, the result of the quite particular modifications and adjustments that Fordyce made to Cullen's chemical pedagogy.

The second paper, given by Professor Colin Russell, entitled "Pioneer in the Scottish Chemical Industry: Archibald Cochrane, 9th Earl of Dundonald," moved the meeting on from chemical pedagogy to early chemical industry. Professor Russell focused on the work of a gentleman chemist, Archibald Cochrane, the 9th Earl of Dundonald. Dundonald came from a naval family, and indeed served briefly himself, but returned to the family estate at Culross Abbey, where he experimented on ways to revive the fortunes of his financially impoverished estates. His estates were, however, rich in wood, coal and iron ore, and the Earl seems to have been in touch with a number of men of science such as Joseph Black, Josiah Wedgwood, and Humphrey Davy. Dundonald set up a number of manufacturing plants to try to exploit his chemical discoveries across the border in the industrializing north of England. Dundonald pioneered a new industrial method of production of coal tar, intended to be used to coat ships to make them watertight and protect them against worms. This method also produced coke, and yet another new discovery, coal gas. He was early involved in the setting up of a works in Newcastle upon Tyne to extract soda from salt, and later set up the first British works for the production of large quantities of alkali using the Leblanc process in Sunderland. He also worked on the improvement of textiles, worked out how to get flour from potatoes and made some important discoveries in agricultural chemistry. His work was, throughout, concerned with the practice and application of chemistry and, characterised by a strong empiricism. However, In spite of all this work, he was almost entirely unsuccessful in every commercial venture in which he took part. He could not sell the coke he produced, nor could he persuade the Admiralty to use his coal tar to protect their ships. He used coal gas for amusement only, and although he persuaded the British government to waive tax on the soda his works produced as it was experimental, his soda was thereby made unusable. As Professor Russell explained, Dundonald sacrificed both his land and his property in the cause of science, and yet died in poverty. In spite of this, Professor Russell argued, he was a founder of the British chemical industry, living and working in the cradle of the early industrial revolution, and indeed many of his ideas were to prove both useful and financially profitable in future years – although not to him.

The final paper was given by John Christie and took the diaspora somewhat further afield – America – "On board the Alliance, the Harbour at L'Orient, 14th. May,1779." Dr Christie picked up Dr Anderson's reflections on the notion of diaspora and how historians might use such an idea comparatively. His particular focus was based on his own typification of Scottish chemistry as being particularly focused on heat, material transformations, and their quantification., as serving to distinguish in some measure Scottish chemistry 1750–1780 from comparable chemical cultures. This typification is exemplified by the works of Cullen, Black, Robison and Irvine (all holders of the Glasgow lectureship in chemistry) on heat, electricity and their quantification. He pointed out that the master/student differential was more complex than it might seem at Glasgow and Edinburgh as the students were highly active on their own accounts., the early researches of the likes of Black, Rutherford Cleghorn and McLurg (a Signatory to the Declaration of Independence) being made whilst they were still students. He then discussed the career of Benjamin Rush, another signatory to the Declaration and a medical student of William Cullen at Edinburgh (although Joseph Black taught him chemistry). Rush also taught chemistry when he left Edinburgh, beginning in 1769 in Philadelphia. His syllabus of 1770 was, indeed, the first chemical textbook to be published in America. Dr Christie explained that Rush's chemistry was closely comparable to Black's and Cullen's philosophical chemistry, although, as with Fordyce, differences could be noted. In the case of Rush, the same layout familiar from Cullen's and Black's courses was interrupted by sections explaining "the preparation of" particular pharmaceutical items as their chemical bases occurred throughout the course, culled from the Edinburgh and London Pharmacopoeias. Rush's course was oriented specifically at medical students and druggists. Where Cullen had been intent on making chemistry independent of medicine, Rush's course sought in one sense to reverse this process, to make chemistry practically functional for medical utility once more. To some extent, then, Rush's chemistry was diasporic, but in other aspects his chemistry, seen from within the Scottish perspective, took a step backwards, in consequence of his particular location. Rush's chemical researches, on mineral water analysis, were also medically focused, but in addition to standard experimental test procedures, used the recent 'fixed air' test derived from his teacher Black's research, The only evidence of American interaction with Scottish thermal chemistry came from a late (1787) paper on evaporation by Mitchill of New York (grad. Edin. 1786). From Philadelphia, Dr Christie, still in quest of American involvement with Scottish research, finally took us to the *Alliance*, and an account in the diary of John Adams, the Revolutionary leader and later U.S. President, of a meeting between Adams and a 'Dr Brooks', surgeon of the *Bonhomme Richard* (named by the French king for Ben Franklin's character, Poor Richard, and captained by John Paul Jones)). Adams was on a mission to exchange British and American prisoners. Adams' account of one afternoon's tea with the officers of the American warship, includes reference to a discussion of chemistry in which 'Dr Brooks' mentioned 'Dr Erving and Dr Black', and demonstrated an extraordinarily up to date grasp of cutting edge developments in the quantification of chemical heat, typical of Scottish chemistry. *Bonhomme Richard* led the naval battle off Flamborough Head later that year, and though victorious, eventually sank. Whether Dr. Brooks survived, or his bones lie off the Yorkshire coast, is not yet known. Dr Christie is still in pursuit of this mysterious 'Dr Brooks' who appears to offer further evidence of the Scottish Diaspora that we have been in search of during this meeting.

The meeting closed with the presentation of the 2008 Partington Prize, jointly to Jennifer Rampling of Cambridge University for "Establishing the Canon: George Ripley and his alchemical sources" and Georgette Taylor of University College London, for "Tracing Influence in Small Steps: Richard Kirwan's Quantified Affinity Theory."

Georgette Taylor
University College London

6. Other news

Allen George Debus (1926–2009)

The Council of SHAC was saddened to learn of the death of Allen G. Debus on 6 March 2009. He was Council's longest serving member, having joined it as its overseas representative in 1967. He published a dozen papers in *Ambix*, scores of book reviews, and referee's reports for successive editors. Allen read chemistry and history at Northwestern University (1945–47) and undertook further chemical studies at Indiana University, where he met his wife Brunilda Rodriguez and wrote his first historical paper on Robert Boyle. He then embarked on a career as a pharmaceutical chemist at the Abbott Laboratories in north Chicago. A series of lucrative patents subsequently funded his graduate studies with Bernard Cohen and Leonard Nash at Harvard from 1956. He spent 1959–60 in London researching the English Paracelsians – the subject of his first ground-breaking book in 1965. In London he established strong personal friendships with Douglas McKie, Bill Smeaton and Walter Pagel. Abandoning an industrial career completely, he began to teach history of science at the University of Chicago in 1961. From 1978 until his retirement in1993 he was the Morris Fishbein Professor of History of Science.

Through his dozen or so books and the many students he trained at Chicago, Allen transformed the narrow "astronomical–mechanical philosophy" view of the Scientific Revolution that prevailed in the early 1960s by demonstrating the significance of alchemy and the work of Paracelsus, van Helmont and their followers in transforming man's view of nature in the sixteenth and seventeenth centuries.

A charming, modest man with an encyclopaedic knowledge of early jazz, it was typical of Allen's warm character that he should have written to me only few days before his death about an article on J. R. Partington I had recently published. He recalled visiting the great scholar at Cambridge in the company of Bill Smeaton in 1959, and of how Partington's writings had first stimulated his interest in the history of chemistry.

Bill Brock

Beckman Center for the History of Chemistry: Fellows for 2009–2010

The Chemical Heritage Foundation is pleased to announce the appointment of the Beckman Center Fellows for the academic year 2009–2010. CHF will welcome eight long term fellows and nine more short term fellows, to include:

- Ava Alkon, Columbia University: "Late 20th-Century Consumer Advocacy, Pharmaceuticals, and Public Health: An Historical Study of Public Citizen's Health Research Group (HRG)."
- Benjamin Gross, Princeton University: "Crystallizing Innovation: LCD Research at RCA, 1956–1974."
- Roger Horowitz, Hagley Museum and Library: "American Kosher: How Orthodox Jews, Food Companies, and Chemistry Created Modern Kosher Food."
- Matteo Martelli, University of Bologna and Pisa: "Greek alchemical works of Pseudo-Democritus: The Book *On the Making of Precious Stones* (*Περὶ λίθων*)."
- Evan Ragland, Indiana University: "Chymistry and Medicine in Low Countries in the Seventeenth Century: Laboratories and Experiments, Acids and Alkalis."

- Annalisa Salonius, Cornell University: "Transformation in the relationship between the organization of research and postgraduate training in the biomedical sciences since 1960: A comparative ethnographic and historical case study (Canada–U.S.)."
- Matthew Shindell, University of California, San Diego: "The New Prophet: Harold C. Urey, Scientist, Atheist, and Defender of Religion."

The Chemical Heritage Foundation (Philadelphia, PA, USA) supports a vibrant fellowship programme, offering research opportunities (both for a full academic year and for shorter periods of time) for pre- and postdoctoral historians of alchemy and chemistry.

Further information about all incoming fellows and the CHF fellowship programme may be found online at http://www.chemheritage.org/research/research.html.

7. Membership

New members

The Society for the History of Alchemy and Chemistry warmly welcomes the following new members:

Leonardo Anatrini (Student)
Dr Elisabeth Bardez (Conservatoire National des Arts et Metiers)
Dr Margaret Beardsley (Metallurgist)
Peter Benbow (Independent scholar)
Danielle Fauque (University of Paris Sud)
Charles Gabriel (Independent scholar)
Hellen Giblin-Jowett (Student, Newcastle University)
Paul Goodall (Independent scholar)
Dr Kathryn James (Beinecke Library, Yale University)
Dong Wook Jung (Student, Seoul National University)
Dr Christine Lehman (University of Paris Nanterre)
Michael Osler (Independent scholar)
Prof Gary Patterson (Carnegie-Mellon University)
Carmel Salhi (Student, University of Michigan)
Sean Schifano (Student, Johns Hopkins University)
Dr Ulrich Schmitt (Museum of Chemistry, Goettingen)
PieterThyssen (Student, Catholic University, Leuven)
Dr Nick Tsarevsky (Carnegie-Mellon University)
Johannes Uray (Student, University of Graz)
Gemma Wright (Museum of the History of Science, Oxford)
Daniel Zuckerbrot (Independent scholar)

Joining SHAC

The Society for the History of Alchemy and Chemistry has a longstanding tradition in the field, organising colloquia, publications and promoting the interdisciplinary study of the history of alchemy and chemistry from its early beginnings to the present. The Society offers support to its members, including an award scheme, regular meetings and events, graduate network, and the triennial Partington prize for original academic writing on any aspect of the history of alchemy and chemistry. It offers a forum for advertising forthcoming events, both within the United Kingdom and internationally, and its website provides a portal to resources relating to the history of alchemy and chemistry.

Members receive the Society's journal *Ambix*, the leading scholarly journal in the field of history of alchemy and chemistry. *Ambix* is published by Maney Publishing and appears three times a year. Members will also receive the Society's newsletter, *Chemical Intelligence*, twice yearly.

Application forms and membership information may be found on the Society's website, http://www.ambix.org/SHAC_Join_Us.htm.

For all membership questions, please contact the SHAC Honorary Treasurer:

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Further Intelligence

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