



HEMICAL INTELLIGENCE

The Newsletter of the Society for the History of Alchemy & Chemistry

No. 20, October 2018

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Editorial

Welcome to this Autumn/Winter issue of Chemical Intelligence, which will be my last as editor. After three years, I need to focus on my PhD research, plus it's time to step aside to give someone else the chance to bring their skills and a fresh perspective to the newsletter. I am very happy to report that the new editor will be Karoliina Pulkkinen, a PhD student in the Department for the History and Philosophy of Science at the University of Cambridge. Karoliina's thesis topic is 'Values in science and the history of the Periodic Table'.

There are many people to whom I owe thanks for their constant help and encouragement, and I am confident that Karoliina will appreciate, as I have done, the efforts of these committed supporters, and regular contributors, both at home and abroad. It is instructive to see just how much people are prepared to contribute, behind the scenes, to make SHAC 'punch above its weight' as a learned society..

There is plenty to look forward over the coming year, and your attention is drawn to events inspired by the International Year of the Periodic Table of the Elements. One event, taking place next February at the University of Murcia, looks in particular at the contribution made by women to the Table's development. Also celebrating the 150th anniversary of the introduction of the periodic table is a conference taking place in St. Petersburg, in July 2019; Mendeleev 150: 4th International Conference on the Periodic Table endorsed by IUPAC.

Closer to home, SHAC's Autumn Meeting is taking place at UCL this November and, as an open session, will feature a diverse range of papers.

The attention of graduate and early career researchers is drawn to the item giving notice of a new award, offered via the Royal Society in the name of Lisa Jardine.

Also noteworthy is the bequest of a remarkable collection of books to the Othmer Library at the Science History Institute, made by the late Allen Debus, who is renowned for the remarkable contribution he made to the history of sixteenth/seventeenth-century chemistry, especially as conceived by Paracelsus.

We are saddened to learn of the death of Robert M. Black, a long-term member of SHAC, whose life and work are recognised in an obituary on p.22. In our Spring newsletter, we announced the death of David Knight, for whom next year a full obituary will be published in the special issue of *Ambix* devoted to Humphry Davy. SHAC will also be holding a meeting in Durham in mid-June to commemorate Prof. Knight's life and work.

Finally, it is pleasing to note to the work of members of SHAC's graduate community, which augurs well as we look to the future.

Judith Mawer



SOCIETY FOR THE HISTORY
OF
ALCHEMY AND CHEMISTRY



Visit our website at <http://www.ambix.org>

SHAC MEMBERSHIP SUBSCRIPTIONS 2019

Important Reminder regarding Membership Renewal

Membership subscriptions are **due on 1 January 2019**, and the Membership Secretary, Carolyn Cobbold, will be sending out renewal dues notices to all members by email in late November 2018. Last year we removed the option to join or renew for two years at once. This means all members will receive a renewal reminder this year.

As a member of SHAC in 2019 you will receive the following:

- Four issues of our journal *Ambix*
- Online access to all back issues of *Ambix* from 1937
- Eligibility for the Award Schemes for New Scholars and Subject Development up to £750 per successful applicant
- Our newsletter *Chemical Intelligence*
- Preferential rates at SHAC meetings
- Substantial discounts on Taylor and Francis journals and books

We hope you will renew your membership not only to receive the benefits listed above but also to keep supporting the work that SHAC does in the history of science community. Most of SHAC's administration is done by volunteers and we would always like to hear from people who would like to get more involved with the Society. If you have ideas for meetings, would like to write an item for our newsletter or have something else to contribute, please do contact our Membership Secretary, Carolyn Cobbold, via [shacdistribution\[at\]ambix.org.uk](mailto:shacdistribution[at]ambix.org.uk). Please also contact her if you have any queries about your membership.

The subscription rates for 2019 for all classes of member remain the same as in 2018.

Full member: £40

Retired member with 10 years' standing as a SHAC member: £30

Student member: £25

The student membership rate for 2019 can be paid by all those who held a valid student card at any time during 2018, as well as to those who still hold one!

Of the methods of payment listed on the website, the easiest and cheapest for most people, especially non-UK Members, is to do so via the Paypal link on the website using a credit or debit card.

If your email or postal address changes, please email our Secretary, Anna Simmons, at [info\[AT\]ambix.org](mailto:info[AT]ambix.org) as soon as possible. Almost all of our communication with members is *via* email and **it is important that we hold a current email address that you check regularly**. SHAC prepares address lists for distribution of the journal, so please inform us, not the publisher Taylor and Francis, if your postal address changes.

* *Please note that due to changes in the way membership payments are administered it is no longer possible to join or renew for two years at once. We apologise for any inconvenience that this may cause to members.*

* *Please note that SHAC's membership year runs from 1 January to 31 December – new members who join during the year receive back issues of *Ambix* for that calendar year.*

SHAC ANNUAL GENERAL MEETING COVERING 2017

The Annual General Meeting of the Society was held at 12:30 pm on Saturday 30 June 2018 in Room 728, UCL Institute of Education (IOE), 20 Bedford Way, London, WC1H 0AL. There were 23 members present.

Members can view minutes of the AGM on the Society's website by following the link found on <http://www.ambix.org/about/>. Copies of the most recent Trustees Annual Report and Annual accounts can also be viewed by following the links on this page.

UPCOMING SHAC EVENTS

SHAC Autumn Meeting, 2018

Chadwick G07, UCL, Gower Street, London

For directions please visit: <https://www.ucl.ac.uk/maps/print/chadwick-building>



The Autumn Meeting had an open call for papers, the response to which has enabled the Society to put together a programme reflecting a diverse range of subjects, and a broad time-span, within the history of alchemy and chemistry.

Programme for Saturday, 24 November 2018

10.45	Registration.	Please feel free to bring tea/coffee with you. Soft drinks will be available at the meeting.
11.00-11.40	Dóra Bobory:	Count Batthyány's Letters on Alchemy - An Editorial Project
11.40-12.20	Umberto Veronesi:	The Philosophers and the Crucibles: Chemical Practice from the Old Ashmolean Laboratory, Oxford.
12.20-13.00	John R.R. Christie:	Gender and the Representation of Chemistry: Two cases from the Eighteenth Century.
13.00-14.30	Lunch Break.	Unfortunately we are unable to provide lunch at this meeting but there are various cafés nearby, for example at the Friends Meeting House and Wellcome Library.
14.30-15.10	Frank James:	Constructing Humphry Davy's Biographies
15.10-15.50	William Brock:	In Liebig's Shadow: Heinrich Will (1812-90)
15.50-16.30	Michael Jewess:	AERE and AEA Technology, 1946-2012

The fee for attending the meeting is £10 (SHAC and RSC Historical Group members), otherwise £15. To register, either:

- Send your name, email address, and home address, along with a cheque (for £10/£15 as appropriate) drawn on a UK bank, payable to 'Society for the History of Alchemy and Chemistry', to Robert Johnstone, 38 Elmtree Green, Great Missenden, BUCKS, HP16 9AF,
- Or, for those without a UK bank account, make a PayPal payment using 'Send Money' - under the 'Money' tab in the latest version of PayPal - for £10/£15 as appropriate, to treasurer@ambix.org (please indicate in the NOTES section of the PayPal form the words "Registration Fee for SHAC Meeting 24/11/18"). You must have your own PayPal account for this registration option.

AMBIX: Journal of the Society for the History of Alchemy & Chemistry

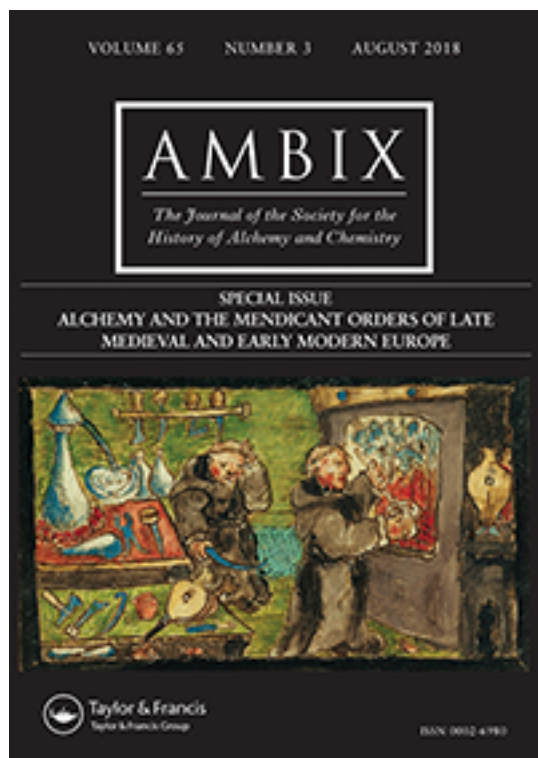
80th Anniversary Issue of *Ambix*

While SHAC members are able to enjoy all issues of *Ambix* online for free, our 80th anniversary issue is **available free of charge** throughout 2018 to non-members, in celebration of the journal and society's longevity and success. This issue includes papers by former *Ambix* Editor Jenny Rampling, Hasok Chang and the 2018 Partington Prize winning paper of Steve Irish. Please feel free to share the link below with friends and colleagues who may be interested in reading this special anniversary issue.

<https://www.tandfonline.com/toc/yamb20/64/4?nav=tocList>

Ambix, Volume 65, Issue 3, 2018

August saw the publication of a special issue of *Ambix*, 'Alchemy and the Mendicant Orders of Late Medieval and Early Modern Europe', guest edited by Andrew Campbell, Lorenza Gianfrancesco, and Neil Tarrant. In an introductory essay, the editors acquaint the reader with some of the historiographical debates that have emerged concerning the subject matter of the issue, and their motivation in presenting a range of papers that illustrate and progress the discourse. The articles contained in this special issue are:



Neil Tarrant

Between Aquinas and Eymerich: The Roman Inquisition's Use of Dominican Thought in the Censorship of Alchemy

Peter Murray Jones

The Survival of the Frater Medicus? English Friars and Alchemy, ca. 1370–ca. 1425

Lorenza Gianfrancesco

Books, Gold, and Elixir: Alchemy and Religious Orders in Early Modern Naples

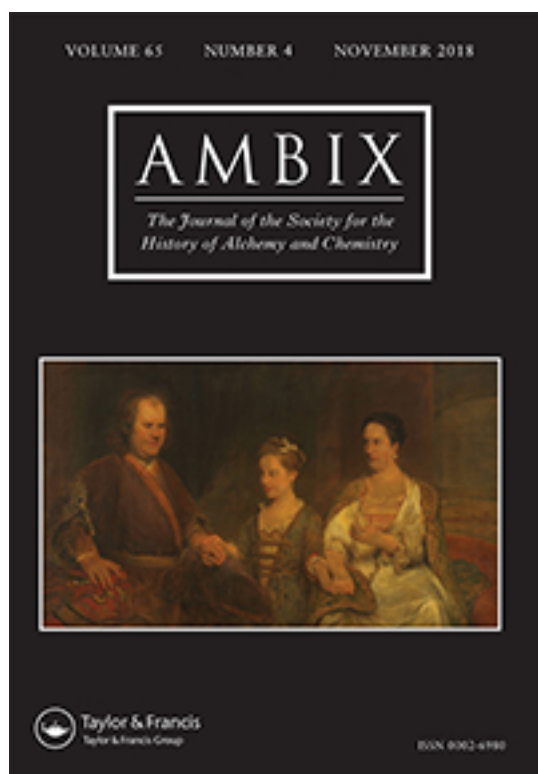
Justin Rivest

The Chymical Capuchins of the Louvre: Seminal Principles and Charitable Vocations in France under Louis XIV



***Ambix*, Volume 65, Issue 4, 2018**

The final issue of Volume 65, dated November 2018, is already available online, and will be distributed as hard copy to members in due course. The articles contained in this issue are:

**Marieke M. A. Hendriksen**

Boerhaave's Mineral Chemistry and Its Influence on Eighteenth-Century Pharmacy in the Netherlands and England

Rafał T. Prinke & Mike A. Zuber

Alchemical Patronage and the Making of an Adept: Letters of Michael Sendivogius to Emperor Rudolf II and His Chamberlain Hans Popp

Seth C. Rasmussen

Revisiting the Early History of Synthetic Polymers: Critiques and New Insights

Stephen T. Irish

James Smithson on the Calamines: Chemical Combination in Crystals

ACCESSING AMBIX ONLINE

Important Reminder to Members

SHAC members have access to all back issues of *Ambix* dating back to 1937 via our website www.ambix.org

How to Access *Ambix* via the SHAC Website

To access these issues you need to log in as a member on the SHAC website www.ambix.org using your username and password. These were sent to existing members when the back issues were first digitised in March 2013. If you have joined SHAC more recently, the username and password was issued when you joined the Society.

If you don't know your username and password please contact the Membership Secretary, Carolyn Cobbold, via newjoiner@ambix.org



Priority Access: Register for Alerts

Issues are published online prior to the physical copy being sent out to members. If you would like to receive notification of when a new issue is available online, please register for Table of Contents Alerts via the Taylor and Francis Website. Click on [Register for Table of Contents Alerts](#) or visit <http://www.tandfonline.com/action/doUpdateAlertSettings>

The screenshot shows the homepage of the Society for the History of Alchemy and Chemistry (SHAC). The header features the organization's name in a serif font, with 'SOCIETY FOR THE HISTORY OF ALCHEMY AND CHEMISTRY'. To the right is a logo depicting a sun with rays and a flask. Below the header is a navigation menu with links: Home/News, About, Publications, Prizes, Grants, Membership, Meetings, Contact Us, and a Log In button. The main content area is titled 'Welcome' and includes a post from 06/03/2014 by 'mauber'. The text welcomes visitors to the SHAC website, mentions its founding in 1935, and lists activities like meetings, prizes, grants, and the journal *Ambix*. At the bottom of the main content are three buttons: 'Join SHAC' (with an image of pottery), 'Renew your Membership' (with an image of a flask), and 'Log in for Members' (with an image of a fire). On the right side, there is a 'SHACorg Tweets' section with several tweets and a 'News' section with a list of recent events.

Ambix BOOK REVIEWS

An important feature of *Ambix* is the section devoted to book reviews, and at the start of this year, Dr Tillmann Taape assumed his responsibilities as the new book reviews editor for the journal. Between January and the end of August, Tillmann commissioned 28 new reviews, 18 of which have been edited and 14 of which have been published in print. Like the articles in *Ambix*, book reviews are usually published online in advance of the distribution of the journal to members, so readers eager to get a preview may access those available by logging in via the membership link on the SHAC website, as described above. Tillmann wishes to acknowledge the contribution of his predecessor, José Ramón Bertomeu-Sánchez, in editing some of the reviews listed below.



Readers may contact Dr Tillmann Taape on issues relating to Book Reviews for *Ambix* at: tillmann.taape@cantab.net

The following reviews have been published in print since January, 2018:

Bud, Robert. *Synthetic: How Life Got Made*. By SOPHIA ROOSTH. Pp. vi + 252, illus., index. The University of Chicago Press: Chicago. 2017. ISBN: 978-0-2264-4033-3-2.

Johnson, Jeffrey. *Chemiker im "Dritten Reich": Die Deutsche Chemische Gesellschaft und der Verein Deutscher Chemiker im NS-Herrschaftsapparat*. By HELMUT MAIER. Pp. 742, illus., index. Wiley-VCH: Weinheim. 2015. €99. ISBN: 978-3-527-33846-7.

Kragh, Helge. *Wilhelm Ostwald. The Autobiography*. Edited by ROBERT SMAIL JACK and FRITZ SCHOLZ. Pp. xiv + 688, illus., index. Springer: Cham, Switzerland. 2017. €174.99. ISBN: 978-3-319-46953-9.

Lefèvre, Wolfgang. *Animal, Vegetable, Mineral? How Eighteenth-Century Science Disrupted the Natural Order*. By Susannah Gibson. Pp. 240, illus., index. Oxford University Press: Oxford. 2015. £16.99. ISBN 978-0-19-87013-0.

Lykknes, Anette. *Kunskap och kemisk industri i 1800-talets Sverige*. By ANDERS LUNDGREN. Pp. 398, illus., index. Lund: Arkiv förlag. 2017. SEK 209. ISBN: 978-91-7924-286-2.

Mawer, Judith. *Alchemy, Medicine, and Commercial Book Production: A Codicological and Linguistic Study of the Voigts-Sloane Manuscript Group*. By ALPO HONKAPOHJA. Pp. 248, illus., index. Brepols: Turnhout. 2017. €80. ISBN: 978-2-503-56647-4.

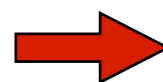
Minor, Adriana. *Parallel Lives: Two Hoosier Chemists from Peru*. By GEORGE FLECK. Pp. xi+440, ills., index. Impress: Williamsburg, MA. 2016. \$35. ISBN: 978-1-5323-2617-2.

Morris, Peter. *Fake Silk: The Lethal History of Viscose Rayon*. By PAUL DAVID BLANC. Pp. xiv+309, index. Yale University Press: New Haven and London. 2016. £30.00. ISBN: 978-0-300-20466-7.

Piorko, Megan. *L'Alchimie à livres ouverts: En quête des secrets de la matière: livres et manuscrits du XVIe au XXe siècle*. By DIDIER KAHN. Pp. 57, illus., index. Hermann Éditeurs: Paris. 2017. €15. ISBN: 978-2-7056-9463-0.

Ramberg, Peter. *The Chemical Century: Molecular Manipulation and Its Impact on the 20th Century*. By RICHARD J. SUNDBERG. Pp. 744, illus., index. Apple Academic Press: Waretown, NJ. 2017. Hardback \$149.95, eBook \$134.96. ISBN: 978-1-771-88366-5.

Tomic, Sacha. *La Navelbine® et le Taxotère® : Histoires de sciences*. By MURIEL LE ROUX and FRANÇOISE GUÉRITTE. Pp. 222, illus., index. ISTE Editions, Ltd.: London. 2017. €44.00. ISBN: 978-1-78405-253-9 (print).



The reviews listed below have been published online, pending print copies being circulated:

Golinski, Jan. *Compound Histories: Materials, Governance and Production, 1760–1840*. Edited by LISSA L. ROBERTS and SIMON WERRETT. Pp. xiv + 387. Cultural Dynamics

Guillem-Llobat, Ximo. *One Hundred Years of Chemical Warfare: Research, Deployment, Consequences*. By BRETI- SLAV FRIEDRICH, DIETER HOFFMANN, JÜRGEN RENN, FLORIAN SCHMALTZ, AND MARTIN WOLF. Pp. 408, illus. Springer Open: Cham. 2017. £46 (hardcover), open access (ebook). ISBN: 978-3-319-51663-9 (hardcover), 978-3-319-51664-6 (ebook).

Herran, Nestor. *Polonium in the Playhouse: The Manhattan Project's Secret Chemistry Work in Dayton, Ohio*. By LINDA CARRICK THOMAS. Pp. 247, illus., index. The Ohio State University Press: Columbus. 2017. £23 (cloth). ISBN: 978-0-8142-1338-4.

Horrocks, Sally. *A Chemical Passion: The forgotten Story of Chemistry at British independent Girls' Schools, 1820s-1930s*. By MARELENE RAYNER-CANHAM and GEOFF RAYNER-CANHAM. Pp. xxiv +251, index. University College London Institute of Education Press: London. 2017. £26.99. ISBN: 978-1-78277-188-3 (paperback). Also available as PDF eBook, ePub eBook and Kindle eBook.

Kirby, Jo. *Treasures from the Sea: Sea Silk and Shellfish Purple Dye in Antiquity*. EDITED BY HEDVIG LANDENIUS ENEGREN AND FRANCESCO MEO. Pp. 158, illus. Oxbow Books: Oxford and Philadelphia. 2017. £38.00. ISBN: 978-1-78570-435-2 (hardback); 978-1-78570-436-9 (digital edition).

Lowengard, Sarah. *A Perfect Ground: Preparatory Layers for Oil Paintings 1550-1900*. By MAARTJE STOLS-WITLOX. Pp. xv+412, illus., index. London: Archetype Publications Ltd.: London. 2018. £85.00. ISBN: 978-1-90-949235-6.

Morris, Peter. *A World History of Rubber: Empire, Industry, and the Everyday*. By STEPHEN L. HARP. Pp. xxi+162, illus., index. Wiley Blackwell: Chichester. 2016. £15.99. ISBN: 978-1-118-93422-7.

Raphael, Renée. *Silver by Fire, Silver by Mercury: A Chemical History of Silver Refining in New Spain and Mexico, 16th to 19th Centuries*. By SAUL GUERRERO. Pp. 440, illus., index. Brill: Leiden. 2017. £150 (hardback), £137 (ebook). ISBN: 978-90-04-34382-5 (hardback), 978-90-04-34383-2 (ebook).

Roos, Anna Marie. *Isaac Newton and Natural Philosophy*. Renaissance Lives Series. By NICCOLÒ GUICCIARDINI. Pp. 272, illus., index. Reaktion Books: London. 2018. £14.95. ISBN: 978-1-78023-906-4.

Runstedler, Curtis. *Chaucer the Alchemist: Physics, Mutability, and the Medieval Imagination*. By ALEXANDER N. GABROVSKY. Pp. 310, illus., index. Palgrave Macmillan: New York, 2015. £69 (ebook), £92 (hardcover). ISBN: 978-1-137-52391-4 (ebook), 978-1-137-54134-5 (hardcover).

Whitney, Kristoffer. *Smell Detectives: An Olfactory History of Nineteenth-Century Urban America*. By MELANIE A. KIECHLE. Pp. 352, illus., index. University of Washington Press: Seattle, 2017. £26.99. ISBN: 978-0-29-574193-2.

GRADUATE NETWORK

SHAC Postgraduate Workshop, 2018

Each year, the SHAC Graduate Network organises a workshop, offering postgraduate students and early career researchers the opportunity to present papers on a particular theme, in a friendly and supportive environment. It is also an opportunity to meet and hear from more senior academics, and to share ideas and experiences. The 9th Annual SHAC Postgraduate Workshop, took place in Summer this year at the Royal Institution in London, and took as its theme; 'Experience and Experiment: Materiality of (al)chemical texts and objects. The workshop was organised by the Society's Student Representative, Megan Piorko, who provides a short report on p.41 of the newsletter.

Aims & Objectives of the Graduate Network

The SHAC Graduate Network aims to stimulate research into the history of alchemy and chemistry worldwide, by providing research training, grants and networking opportunities for postgraduate students and postdoctoral researchers working in these fields. As part of this scheme, postgraduates and early career researchers are eligible to apply for grants towards the cost of research (the New Scholars Award). The Society also organises an annual workshop for students and junior scholars, focusing on methods, sources and approaches in the history of alchemy and chemistry.

SHAC Student Representative

The current SHAC Student representative is Megan Piorko, a PhD candidate at Georgia State University, who may be contacted via email (studentrep@ambix.org).

Contributions to *Chemical Intelligence*

Graduate members are encouraged to contribute items of interest to this newsletter, including a personal student profile (see format below); reports of conferences, workshops, events etc. attended; articles on places or resources of interest e.g. libraries, archives, museums, laboratories etc., news items about the history of alchemy and chemistry etc. Photographic images are also very welcome. Contributions should be sent to: Karoliina Pulkkinen, Editor, *Chemical Intelligence*: kjp41@cam.ac.uk

Graduate members will find more information about SHAC, its events, prizes and awards, along with details relating to past, present and forthcoming news and activities in the history of alchemy and chemistry, by visiting the Society's webpage: <http://www.ambix.org>

GRADUATE PROFILE

The graduate profile is a popular and important feature of *Chemical Intelligence* introducing, as it does, new (or at least relatively new) colleagues and their research interests. If you would like, or at least be willing, to share your own profile with readers, please submit your details to the SHAC student representative, Megan Piorko, studentrep@ambix.org, who I am sure would be delighted to hear from you. Please follow the format used below, restricting your profile to one A4 page and including a photograph of yourself.

Meagan S. Allen
Indiana University

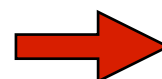
Self Introduction

I graduated from Mount Holyoke College in 2014, where I received a Bachelor's Degree in both Biological Sciences and Medieval Studies. While there, I wrote an honours thesis on medical practices during the Black Death, in which I examined scientific and religious interpretations and reactions to the plague.



Currently, I am a Ph.D. candidate in the Department of History and Philosophy of Science and Medicine at Indiana University. My dissertation, which focuses on Roger Bacon's medical alchemy, seeks to understand the relationship between Bacon's alchemical practice and contemporary medical and theological views on the nature of disease, ageing, and death. To what extent was Bacon influenced by the dominant medical theories coming out of Paris and Oxford? How important was the Franciscan and Patristic understanding of the resurrection body to Bacon in developing his theories of prolonging life through an incorruptible body? How engaged was Bacon in alchemical, and more broadly, scientific practices, such as those of his favourite experimenter, Petrus Peregrinus de Maricourt? By answering these questions, I hope to

provide a grounding for Bacon's alchemy in contemporary theory, while also exploring the nexus between alchemy and medicine in the thirteenth century.



What is the greatest challenge you faced as a postgraduate student?

The greatest challenge I have faced as a graduate student has been in finding a purpose for myself and my research. When I began my graduate career, I was stumped at how to incorporate the history of medieval science into a university curriculum that is increasingly moving away from the liberal arts. Through science outreach programmes, I have discovered a passion for talking about why seemingly “outdated” scientific theories are worthy of study, and how, rather than being evidence of a progressivist narrative of the history of science, they were believable and grounded in the theories of their time. I hope that my research will add to the ever-growing collection of scholarship on medieval science, re-examining the common myth that the middle ages were a period devoid of science.

Alexander Lowe McAdams
Rice University

Self Introduction

My research focuses on the intersections between literature, emergent theories of science, and Western religious hermetic and esoteric philosophies. Since joining the Rice Department of English in 2014, I have had numerous opportunities to engage in multi-disciplinary research and inquiry, including my graduate fellowship for the 2017–2018 Rice Seminar, *Forgery and the Ancient: Art, Agency, Authorship*; the Paideia Institute’s prestigious five-week Living Latin in Rome program (2017); and City University of New York’s Summer Latin Institute (2016), for which I received more than \$8,000 in funding. My continued interest in interdisciplinary work has provided fruitful avenues for both my research and teaching methods.

**What is the greatest challenge you faced as a postgraduate student?**

Perhaps the greatest challenge I have faced is my Latin language acquisition. I realised in my second year that a comprehensive project in literary studies and the history of science could not be achieved without a robust understanding of the Latin language. My department does not have a language requirement, and given the small presence Classics has on the Rice University campus, my only avenue was to participate in summer intensives away from Houston. Acquiring four semesters of Latin in 10 weeks was exceptionally challenging and rigorous. In spite of that difficulty, however, learning Latin has helped me find my voice in research, as I am able to triangulate ancient cultures, early modern literature, and the history of science in my writing.

OTHER MEETINGS

XV Meeting of the Catalan Society for the History of Science and Technology

Tarragona, Spain

November

08-10

2018

The programme of the 15th edition of the conferences organised by the Catalan Society for the History of Science and Technology every two years is already on-line. It includes sessions on the history of biopolitics, science and war, amateur science, museology, science teaching, medicine, as well as the role of chemistry, and toxicology in the development of regulation and public health politics in Europe.



SCHCT

Societat Catalana d'Història de la Ciència i de la Tècnica

More information: <http://15-thct.espais.iec.cat/>

Faculty of the History and Philosophy of Medicine and Pharmacy & The British Society for the History of Pharmacy Joint Symposium

Drugs, Trade and Empire, 1650-1950: How the British Pharmaceutical Industry sold Medicines to the World

Apothecaries' Hall, Black Friars Lane, London EC4V 6EJ



As the British Empire grew, it offered markets for the British pharmaceutical industry to explore and exploit. Medicines were developed, promoted and traded to capitalise on relationships with British colonies. Many were based on raw drugs that had themselves been imported from the colonies. There was also movement of knowledge, people and practices across the world. But



what patterns did this movement take? How did relationships between Britain and its colonies play out pharmaceutically? And what was their legacy? These and other issues will be explored in this one day symposium.

November

09

2018

Booking and Payment Options:

Non-Member's Fee £50.00; Members & Students fee £30.00

Please contact: Maria Ferran, Faculty Manager by **5th November 2018**
Email: facultyhp@apothecaries.org or Telephone: 020 7236 1189

Electronic transfer: The Society of Apothecaries

Sort Code: **18-00-02** Account number: **05959640**

Reference: PHARM/Surname

Cheques are payable to **"The Society of Apothecaries"**

Send a note with your full name, guest(s) name and dietary requirements

No refunds for cancellations within 7 days prior to the symposium



Drugs, Trade and Empire, 1650-1950: How the British Pharmaceutical Industry sold Medicines to the World

Programme

9:00 Registration open/tea and coffee

9:45 Welcome and Introduction from the Master Apothecary

9:55 **Prof Stuart Anderson**, *Pharmacy and Empire: People, Practice and Pharmacopoeias*

10:35 **Prof Mark Harrison**, *The Medication of India: Quinine and the Commodification of Health*

11:25 Coffee and chance to see posters/displays

11:45 **Prof Tilli Tansey**, *Selling drugs around the world: Burroughs Wellcome & Co before 1914*

12:25 **Dr Anna Greenwood** *Boots and the networks of Empire*

13:00 Lunch (not provided)

14:00 Sources from the Hall Archive:

- **Nick Wood** – *Trade in the Dawn of Empire*
- **Dr Anna Simmons** - *From Purgatives and Powders to Fulminate and Factories: The Society of Apothecaries and Drug Supply to India*
- Viewing of selected items from the Apothecaries' Archive Collection

15:00 Tea and chance to see posters/displays

15:30 **Dr Kristin Hussey** *'He came home to die': Tropical returners and patent medicines in the high imperial era*

15:50 **Dr Hilary Ingram** *Boots in New Zealand: Challenges to overseas expansion, 1935-1938*

16:15 Panel discussion/conclusions

16:30 Networking with drinks

18:00 Depart



Royal Society of Chemistry Historical Group

A Meeting to Celebrate the 100th Anniversary of the foundation of IUPAC

Royal Society of Chemistry, Burlington House, Piccadilly, London

March

14

2019

The meeting is free to attend but prior registration is essential. Further details and the full meeting programme will be available from the Group's Secretary, Professor John Nicholson (jwnicholson01@gmail.com) in January 2019.



History of Science Society Annual Meeting

Utrecht, The Netherlands

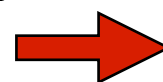
July

23-27

2019

The History of Science Society has announced the dates of the 2019 annual meeting, which is to take place in Utrecht, The Netherlands. The organisers of this meeting and of the 12th International Conference on the History of Chemistry (12th ICHC), also due to take place in The Netherlands, in Maastricht, have co-ordinated the dates of their meetings (see below) in order to ensure that anybody who wishes to participate in both may be able to do so conveniently.

The Call for papers has yet to be circulated, but is forthcoming, with the submission date for abstracts given as 2 January 2019.



Mendeleev 150: 4th International Conference on the Periodic Table endorsed by IUPAC

ITMO University Congress, Saint Petersburg, Russian Federation

Sc Scandium				Ku Kurchatkin
Pt Periodic Tables	I IUPAC	Og Oganesson	U UNESCO	Md Mendeleev
Ru RSF	W Water	H Henry	Po Polish	Rf RFB

The UNESCO/UN International Year of the Periodic Table of Chemical Elements in 2019 will celebrate the 150th anniversary of the establishment of the Periodic Table of Chemical Elements by the Russian scientist Dmitri Mendeleev, who is regarded as one of the fathers of modern chemistry.



This is the fourth meeting in a conference series that started in 1969, and for which the proceedings have in each case been published, as follows:

1st conference: Vatican, 1969,

Verde (ed), *Atti del Convegno Mendeleeviano*, Accademia delle Scienze di Torino, Accademia Nazionale dei Lincei, Torino, Roma, 15-21, Settembre, 1969, Torino, Vincenzo Bona, 1971.

2nd conference: Banff, Canada, 2001,

D. Rouvray, R.B. King (eds.), *The Periodic Table: Into the 21st Century*, Research Studies, Press, Baldock, England, 2004 and *The Mathematics of the Periodic Table*, Nova Science, Publishers, New York, 2006.

3rd conference: Cusco, Peru, 2010, organized by Julio Gutierrez Samanez & Rolando Alvaro. E.Scerri, G. Restrepo (eds.), *Mendeleev to Oganesson*, Oxford University Press, New York, 2018.

The Mission of the conference taking place in St Petersburg is to recognise the importance of chemistry and the advances in research and discoveries on the periodic table of chemical elements for sustainable development and for the benefit of humankind; to stress that the periodic table is widely used in vital spheres of scientific knowledge such as chemistry, physics, and biology; and to highlight the continuous nature of scientific discovery in different contexts, with particular emphasis on promoting science education at all levels among young women and men. It will provide an unparalleled opportunity to highlight the continuous nature of scientific discovery in different contexts, with particular emphasis on promoting science education at all levels among young women and men.

Co-organizers:

Mikhail V. Kurushkin (ITMO University, Russia)
Eric R. Scerri (University of California, Los Angeles, USA)
Philip J. Stewart (Oxford University, UK)

E-mail contact: mendeleev150@scamt-itmo.ru

For more details and a draft conference programme, visit:

Website: <http://mendeleev150.ifmo.ru/>





12th International Conference on the History of Chemistry (ICHC12)

Maastricht, The Netherlands

Every two years the Working Party (WP) on History of Chemistry (EuChemS) organises an international conference on the history of chemistry, open to colleagues from all over the world. The 12th International Conference on the History of Chemistry (12th ICHC) will take place from 29th July to 2nd August, 2019 in Maastricht, one of the oldest cities of The Netherlands, which still has preserved much of its historical charm. The dates of the conference are chosen in such a way that those who are visiting the Annual Meeting of the History of Science Society (HSS) in Utrecht, The Netherlands, from 23-27 July 2019, can easily combine this with participation in ICHC12.



A call for papers for ICHC12 with more details will be sent out soon.

The Conference will be hosted by Maastricht University (MU), a young university, founded in 1976, with a very international student population, and a strong research group in Science, Technology and Society (STS), including the history of science and technology. The conference will be sponsored by MU, the

Royal Dutch Chemical Society and several other organisations.

The Steering Organising Committee encourages the submission of panel/session proposals, but also welcomes the submission of stand-alone papers. Session organisers and contributors are free to send their proposals on any topic on the history of chemistry, broadly constructed as the cluster of molecular sciences, industry, and technology. A non-exhaustive list of possible sessions could include historical papers on the development of all aspects of material and life sciences, such as:

- Chemistry, professors, textbooks and classrooms
- Teaching and didactics of history of chemistry
- Chemistry and law: controversies, expertise, counter-expertise, fraud and activism
- Environmental chemistry, energy and regulation
- Chemical industry, its transition towards a circular economy
- Spaces and sites of chemistry
- (Post)colonial perspectives on chemistry
- Chemistry and its businesses in a globalising world
- Commodities and commodification

- Modern chemistry and physics of semiconductors and nano-materials
- Chemistry and digital humanities; editions of manuscripts, etc.
- Instruments, collections and material culture
- Replication of past experiments
- Periodic Table (2019 = International Year of the Periodic Table)
- Biographies, prosopographies, and databases
- Chemistry, war and exile
- Representation of chemistry, and visual cultures
- Early modern art and chemistry
- Alchemy, Chemistry and Early Modern Science and Medicine
- Gender and chemistry

The Steering Organising Committee consists of Christoph Meinel, Universität Regensburg, and Ignacio Suay-Matallana, Universidad Miguel Hernández, Alicante (chairs of the committee), Cyrus Mody (member of the local organising committee) and Brigitte Van Tiggelen. Science History Institute (chair of the WP). Chairperson of the Local Organising Committee is Ernst Homburg, Faculty of Arts and Social Sciences, MU, Maastricht.

For more information about session or paper submission, deadlines and practical arrangements can soon be found on: www.ichc2019.org

Contact information for practical questions: ICHC2019MAASTRICHT@gmail.com

Ernst Homburg, Cyrus Mody, Christoph Meinel, Ignacio Suay-Matallana, and Brigitte Van Tiggelen

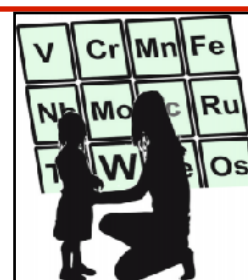


OTHER MEETINGS: CALLS FOR PAPERS

International Symposium on: **Setting their Table: Women and the Periodic Table of Elements**

University of Murcia, Spain

Call for Papers: Deadline, 30 November 2018



February

11-12

2019

In the history of the discovery and establishment of the Periodic Table (PT), it seems there are hardly any women scientists involved. More numerous are they however when it comes to filling the table, and discovering elements, their properties and their use, even though those women are often forgotten or overlooked. This symposium will specifically address the contribution of women to the PT and the knowledge of its elements, by demonstrating the presence of women and girls in the history of the



development and filling of the PT, by reviewing the present situation and achievement of women in chemistry today and setting the table for the future.

The Symposium is organised under the auspices of UNESCO and through the cooperation of IUPAC, IUHPST, EuChemS (European Chemical Society) as well as the Real Sociedad Española de Química and the University of Murcia. This international conference is set in the frame of the International Year of the Periodic Table of the Elements (IYPT) and will start on the International Day for Women and Girls in Science. The program includes plenary lectures, key notes, oral communications and posters, as well as a round table.

For more information on the symposium, the venue, the associated events and how to register, see the website: http://www.iypt2019women.es/scientific_topics.php or send an email to congresos@v-erticesur.es

Scientific Topics

While the Periodic Table has been established for a while now, and the number of available elements is finite, the progress of chemistry continues to enable researchers to find new ways to use these elements for the benefit of men and women, and meet the challenges faced by humanity in the 21st century. The focus of this Symposium is on the contribution of women, and how these contributions have been implemented by the scientific community.

The Symposium sessions will cover a variety of advanced topics on following subjects:

- History of women, the elements and the Periodic Table
- The Periodic Table and chemical education, past, present and future (with a special attention to secondary school teachers and pedagogy)
- The elements and the Periodic Table for sustainable chemistry
- Beyond the elements: building nano- and bio-materials
- Old elements, new technologies: how to improve the quality of life
- Women in the chemical sciences, engineering and technologies
- Endangered elements: how to face the scarcity of resources

Authors are encouraged to submit contributions for Oral and Poster Communications before November 30, 2018, online: http://www.iypt2019women.es/abstract_submission.php

For more information: http://www.iypt2019women.es/oral_and_poster_communications.php



In a Strange Garden - Alchemy in Sound and Nature

National Library of Wales, Aberystwyth



Call for Papers, pieces and performers: Deadline 20th December 2018

In a Strange Garden comprises a one-day symposium, exhibition of rare alchemical texts and an experimental electronic music concert (Friday March 15th) and concert (Saturday March 16th) for artists and researchers of any or no affiliation, early career and practice-based researchers, sound artists, musicians and composers.

This is the second symposium of alchemy in sound art organised by Listen to the Voice of Fire and is looking for alchemically infused sound art investigations of Nature. You may take a very wide latitude of how you interpret this. Theoretical, practical, historical and exploratory approaches rooted in, inspired by textual specificity are welcome as are more general overall approaches inspired and motivated by alchemy (or more accurately, hermeticism).

In a Strange Garden seeks to generate approaches, musical ideas and discussion around these themes with view to developing an audio/text later in the year.

Themes of interest include and are not restricted to:

- Historic and contemporary approaches to Sonic Mysticism
- Sound, alchemy and psychogeography
- Sound art and compositional responses to The Emerald Tablet
- Alchemy and soundscape ecologies.
- Alchemy in text/emblem/nature, sonification, algorithm and interactivity

Talks should be up to 20 minutes duration

Performances or fixed media (presented in person) can be up to 20 minutes duration

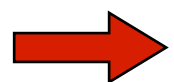
Proposals for experimental electronic performance are sought for concert held on the evening of Friday 15th March at National Library of Wales, Aberystwyth

Indicative approaches: Cybernetics, Sound art, noise, soundscape, field recordings, data bending, psyche/drone, electroacoustic, no input mixing board, electronics including novel/hybrid/hacked instruments and /or new musical interfaces

Technical Details

Laptop/usb PowerPoint is available should you need it, please ensure you have the right connectors, PowerPoint is not obligatory.

Performers will have access to a small mixer and 2 channel active speakers and should ensure they bring all leads and peripherals.



Submission Details

Proposals for papers and presentations should be made by emailing 1 pdf document of your proposal, name, email contact, affiliation if appropriate and ensure you include active links to your music pages, duration of your performance/piece. **Please indicate if you wish to present during the day and or the concert on Friday 15th March.**

Concert performance pieces of 15-20 minutes duration are welcome (please specify).

Email submission to: [dir \[at\] aber.ac.uk](mailto:dir@aber.ac.uk)

Please use the email subject: **SOUND**

Deadline for submission is 20th December 2018

NB

All confirmed performers/presentations must be made in person. This is a non-affiliated project, and not in receipt of any public funding. LVOF is not in a position to pay researcher/artists' fees or make contributions to travel expenses.

Organiser: Dr Dafydd Roberts, Listen to the Voice of Fire

SHAC PRIZES AND AWARDS

Society for the History of Alchemy and Chemistry: Morris Award 2018

The Society for the History of Chemistry wishes to announce that the Morris Award for 2018 has been given to Yasu Furukawa for his outstanding work on the history of chemistry and its relationship with the chemical industry, specifically for *Inventing Polymer Science: Staudinger, Carothers, and the Emergence of Macromolecular Chemistry* (1998) and *Chemists' Kyoto School: Gen-itsu Kita and Japan's Chemistry* (2017). There is a unifying theme to Yasu's scholarship across *Inventing Polymer Chemistry*, the *Chemists' Kyoto School* and other publications, including his *Social History of Science*. His work is in part an exploration of relationships between industrial applied chemistry and fundamental theoretical chemistry.

In *Inventing Polymer Science* and other publications, Yasu has transformed our understanding of the history of polymer science. As a professional historian with great insight and understanding of the material, Yasu showed how it was not a simple matter of Staudinger showing previous views were wrong and bringing about a "revolution" in chemistry. In fact Staudinger's opposition to the then current micellar theory was reactionary rather than revolutionary. Through his attempts to disprove the micellar theory, Staudinger created the new discipline of polymer science. However, and this is the entirely novel aspect of Yasu's work, Staudinger did not operate alone but in opposition to the neo-micellar theories of Herman Mark and Kurt Meyer at the chemical firm IG Farben. Yasu argues that modern polymer science was not just a result of Staudinger's research programme, important as it was, but a synthesis of the



opposing views of Staudinger and Mark. For example Staudinger as an organic chemist believed that polymer chains were rigid rods, whereas Mark as a more sophisticated physical chemist came to believe that they were coiled or folded chains like the chain on a sink plug. The concept of chain coiling and folding is central to modern macromolecular science (e.g. the folding of protein chains in degenerative diseases).

Yasu Furukawa has also done work on other aspects of modern chemistry and industrial chemistry including the chemistry department at Kyoto University which has resulted in his latest book, *Chemists' Kyoto School: Gen-itsu Kita and Japan's Chemistry*, currently only in Japanese but an English language publisher is being sought. In his studies of the Kyoto School, Yasu has examined the education and pioneering research in quantum chemistry of Kenichi Fukui, the first Japanese Nobel Laureate in Chemistry (1981), within a Department of Fuel Chemistry (later Department of Hydrocarbon Chemistry) in a Faculty of Engineering. His detailed history of the Kyoto School also includes the work of its head Gen-itsu Kita who stressed the importance of fundamental sciences and basic research in applied chemistry; Shinjiro Kodama, who was a petroleum chemist; and Ichiro Sakurada, who became a pioneer of polymer chemistry in Japan.

In addition to his publications, Yasu Furukawa has given great service to the history of chemistry community. He was the editor of *Kagakushi* (Journal of the Japanese Society for the History of Chemistry) for five years and the president of the Japanese Society for the History of Chemistry for six years up to 2016. Internationally, he has also served on Commission on the History of Modern Chemistry and played an important role in organising some of its sessions.

Yasu Furukawa took his PhD in the history of science at the University of Oklahoma in 1983 with a thesis entitled "Staudinger, Carothers, and the Emergence of Macromolecular Chemistry". He was a professor at Nihon University, one of Japan's largest private universities, for fourteen years until his recent retirement.

The Morris Award is given every three years for outstanding scholarly work in either the history of chemical industry or the history of chemistry since 1900. The recipient of the award is given £300 and a framed picture or document. They give the Morris Award Lecture at an appropriate meeting and this is usually published in *Ambix*. Previous holders of the award are Ray Stokes (2009), Mary Jo Nye (2012) and Anthony Travis (2015).

OTHER NEWS, EVENTS AND GRANTS

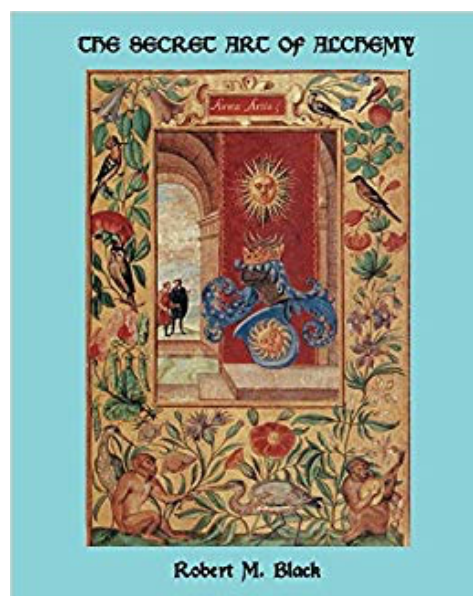
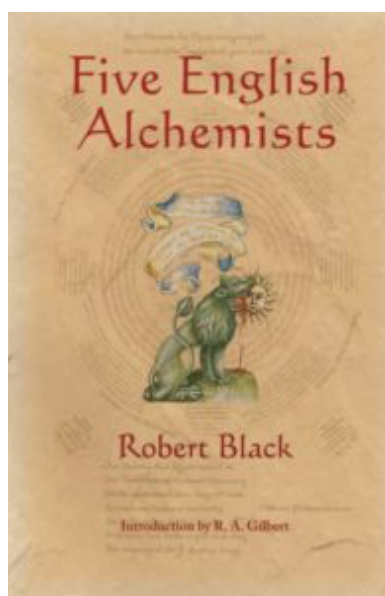
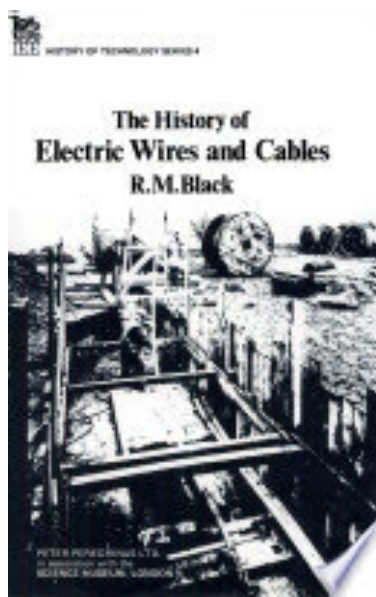
Obituary

Robert M. Black

Dr Robert M. Black, a long-standing member of the Society for the History of Alchemy and Chemistry passed away aged 93 on 19 February 2018. He was born in 1925 and educated at Eltham College, Kent and King's College, London. In 1945 he joined the Research Department of BICC Limited as a research chemist, later carrying out part-time research under A.J. Lindsay on chemiluminescence at the Sir John Cass College. This led to the degree of MSc in 1949 and PhD in 1953. From 1954 to 1956 he was seconded to the Atomic Energy Research Establishment at Harwell to work under Arthur Charlesby on the radiation chemistry of polymers. On returning to BICC in London he became head of the Physical Chemistry Department until 1968 when he was appointed personal assistant to the Director of Research. He retired in 1978. He was the author or co-author of over forty scientific and technical papers in the fields of analytical and radiation chemistry and dielectric phenomena. He published the Science Museum booklet *Electrical Cables in Victorian Times*, and wrote *The History of Electric Wires and Cables*, published by the Institution of Engineering and Technology in 1983.

Dr Black's interest in alchemy was esoteric. He joined SHAC in 1957 and published *Five English Alchemists* with Imagier Publishing and *The Secret Art of Alchemy*. He was admitted to the fraternity Societas Rosicruciana in Anglia in 1977, of which for many years he was Recorder-General.

Compiled by William H. Brock and Anna Simmons



SHAC Recognises Dr Jennifer Rampling's Service as Editor of *Ambix*



Prior to the start of the Society's AGM on Saturday 30 June 2018, Jennifer Rampling was presented with a framed cover of *Ambix* to mark her service to SHAC as both Editor and Deputy Editor of *Ambix*. Dr Rampling stepped down from her role as editor following the publication of the journal's 80th anniversary issue. At the beginning of 2018 Bruce Moran took over as Editor of *Ambix*, Viviane Quirke as Deputy Editor and Tillmann Taape as Book Reviews Editor, with Alan Rocke continuing as Deputy Editor. *Ambix* also now has an Editorial Assistant, Millie Schurch.

Bill Brock honoured by the Justus Liebig-Gesellschaft zu Giessen

SHAC is delighted to report the election of Bill Brock to Honorary Membership of the Justus Liebig-Gesellschaft zu Giessen on 25 May 2018, following a talk he gave to the



Society entitled 'In Liebig's Shadow: Heinrich Will (1812-90)'. Bill has been a member of the Gesellschaft for over thirty years, having joined in 1986. The Society is a private one dedicated to the preservation of the Liebig Museum in Giessen.



The citation, which Bill has translated, reads:

The Justus Liebig Gesellschaft zu Giessen hereby elects Prof. Dr. William H. Brock to Honorary membership in recognition of his lifetime's dedication to the history of chemistry and its cultural significance. As a dedicated professor at the University of Leicester he has shown the importance of chemistry through his teaching and research across borders and nationalities. And, for the history of German chemistry, his [translated] monograph *Justus von Liebig: Eine Biographie der grossen Wissenschaftlers und Europaers* is of outstanding importance.

Bill was presented with a replica of Liebig's iconic Kali Apparat, which can be seen in the photograph above that was published in the daily *Giessener Allgemeine Zeitung*.

SHAC congratulates Bill on this latest achievement.

The Royal Society

The Lisa Jardine Grant Scheme

The Lisa Jardine Grant Scheme is designed to offer the opportunity for early career scholars to exploit history of science collections, including the Royal Society's own, in support of their research in the field of intellectual history.

The scheme is named in memory of the eminent British historian Professor Lisa Jardine CBE FRS. It encourages junior researchers in the humanities and arts to seek to expand their interests in history of science and related interdisciplinary studies by travelling in order to use archival resources and to build relationships with the Royal Society and other institutions.

Grants are intended to encourage the free movement of researchers across disciplines and countries and to stimulate academics studying intellectual history to consider science in their research. Applicants are encouraged to look at the Royal Society's strategic objectives, in order to be able to demonstrate how their research might further these general goals, but applications will be judged on the strength of their academic content in intellectual history, history of science and related disciplines. Special consideration will be given to topics that were of interest to Professor Jardine, notably in 17th century studies.

Funds for a contribution towards subsistence can be requested for lengthy research visits to the Royal Society Library in London; for travel expenses to London in order to conduct this research; and for international travel expenses for short visits.



Eligibility to Apply for the Scheme:

Applicants must be either:

- Doctoral candidates with at least one year's experience towards thesis stage.
- Researchers holding PhDs awarded within the last ten years, in early research positions at universities and other eligible organisations (e.g. museums, galleries). The applicant must hold a permanent or fixed term contract for the duration of the award in an eligible organisation.

All activities must be on a subject combining the humanities and the natural sciences. This includes, but is not limited to: intellectual history, cultural history, history of science, philosophy of science, history of art, and historical geography. The scheme places special emphasis on Early Modern science and European networks of the period.

UK and international applications are welcomed

How and When to Apply for this Scheme?

The first round opened in June 2018 and closed 31 August 2018. A second round will open in October 2018. Applications should be made through the Royal Society's grant management system Flexi-Grant®. Please visit the Royal Society website for further details and to **access the Scheme Notes:** <https://royalsociety.org/grants-schemes-awards/grants/lisa-jardine/>

Value and Tenure of the Scheme

This scheme provides:

- Up to £2,000 per month to a maximum of 3 months, for travel and living expenses while attending the Royal Society Library and nearby scholarly collections.

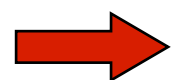
And/or

- Up to £2,000 for international travel to any relevant research destination.

If applying for both the panel may decide to award one or both.

Please note that Round 2 of the Lisa Jardine Grant Scheme will open in October 2018 and close on 31 December 2018.

If you have any further queries about the scheme or application process please contact library@royalsociety.org



A Celebration of the Life and Library of Allen G. Debus, Extraordinary Historian of Early Science and Medicine

The Science History Institute (formerly the Chemical Heritage Foundation) had the honor of hosting a special event on 15 June 2018 to mark the donation of the library of Allen G. Debus to the Institute's Othmer Library of Chemical History. Dr. Debus (1926–2009) was an historian of science best known for his work on chemistry and alchemy and their contribution to the scientific revolution. Originally trained as a chemist, he studied under I. Bernard Cohen at Harvard and received his Ph.D. in history of science there in 1961. He then joined the faculty of the University of Chicago as an assistant professor, was instrumental in founding the Morris Fishbein Center for the History of Science and Medicine at Chicago, and was the Morris Fishbein Professor of the History of Science and Medicine until his retirement from the university in 1996. Debus produced over 300 articles and reviews and authored or edited 20 books and received numerous prizes and fellowships. Among his many accomplishments was serving on the SHAC Council for forty-one years.

The 15 June event featured a panel session with historians of science discussing Debus's work and his influence, with Ku-Ming "Kevin" Chang (Academia Sinica), Karen Parshall (University of Virginia), Lawrence Principe (Johns Hopkins University), and Paul Theerman (New York Academy of Medicine). The session was moderated by Dr. Carin Berkowitz, the Institute's Director of the Center for Historical Research. Dr. James Voelkel, our curator of rare books and manuscripts, displayed several works from the collection and talked on the significance of Debus's library and its importance as a research collection, especially in the context of the Othmer Library's extensive holdings in early modern alchemy and medicine. Several members of the Debus family were present and expressed their satisfaction that the collection was now at a place where it could be shared with many more researchers going forward.

Dr. Debus's library was donated to the Institute in 2016 by his widow, Brunilda L. Debus. The collection of approximately 800 titles includes more than 300 rare books and important secondary and reference works on the history of early medical chemistry. The largest number of works—120—date from the 17th century, which was Debus's specialty, with an additional 23 books from the 16th



Allen G. Debus © Science History Institute



century. As is to be expected from a scholar who focused on Paracelsus and medical chemistry, the collection is strong in these areas, with six titles by Paracelsus and two or more each by authors such as Jean Béguin, Nicaise Le Fèvre, Antoine Deidier, Daniel Sennert, and Petrus Severinus. There are an exceptional number of works of Joseph Du Chesne, a.k.a. Quercetanus, on whom Professor Debus wrote the entry in the *Dictionary of Scientific Biography* and who featured strongly in his book, *The French Paracelsans*. The collection is also strong in the works of the physician and natural philosopher Robert Fludd. Of great value especially are works in the Allen G. Debus Collection by important authors in the Othmer Library collections that we did not already hold, for instance two works by Isaac Newton, his *The Chronology of Antient Kingdoms Amended* (1728) and *Observations upon the prophecies of Daniel, and the Apocalypse of St. John* (1733), and George Starkey's *Des hochgelahrten Philalethae drey schöne und auserlesene Tractätlein von Verwandlung der Metallen* (1675). You can browse the titles from his library on our website at <https://guides.othmerlibrary.sciencehistory.org/Debus>.

I am indebted to Ronald Brashear, Arnold Thackray Director at the Other Library of Chemical History, Science History Institute, Philadelphia, for providing this article.

Beckman Center Fellowship Announcement, 2018-2019

The Beckman Center for the History of Chemistry at the Science History Institute is pleased to announce the appointments of its 2018-2019 class of fellows.

Two-year Postdoctoral Fellows

Rebecca Kaplan (ACLS Public Fellow, Pulitzer Center on Crisis Reporting). Cain Fellow. "Treating Animals: Veterinary Pharmaceuticals in the United States during the Nineteenth and Twentieth Centuries"

Ingrid Ockert (Princeton University). Haas Fellow. "The Scientific Storytellers: How Educators, Scientists, and Actors Televised Science."

Nine-Month Dissertation Fellows

Kate Grauvogel (Indiana University). Allington Fellow. "A Gendered History of Pathology: Women, Hormones and Blood Clots, 1784 -1969"

Spring Greeney (University of Wisconsin-Madison). Visiting Fellow. "What Clean Smells Like: An Environmental History of Doing the Wash, 1841-1992."

Kathryn Heintzman (Harvard University). Visiting Fellow. "Administering the Animal: Veterinary Education & the Making of the French Domestic, 1761-1814."

Lucas Mueller (Massachusetts Institute of Technology). Visiting Fellow. "Toxic Relationships: Toxicity, Cancer, and Science in the Postcolonial World."

Julia Stone (Princeton University). Cain Fellow. "Sweet Deception: A History of the Health Politics of Sugar and Artificial Sweeteners in the United States"

Short-Term Fellows

Bettina Bock von Wülfingen (Humboldt University of Berlin). Allington Fellow. "Color: The Semiotics of Color in Scientific Diagrams (the Periodic Table and the Metabolic Map)." (3 months)

Rocio Gomez (University of Arkansas). Science History Institute Fellow. "Victors and Vanadium: Scientific Discovery During Mexico's War of Independence." (2 months)

Isabelle Held (Royal College of Art/Victoria and Albert Museum). Doan Fellow. "The Bombshell Assembly Line: Military-Industrial Materials Research and the Syntheticisation of Women's Bodies in the US, 1939-1976." (2 months)

Alexandre Hocquet and Frédéric Wieber (University of Lorraine). Otlet Fellows. "Software Packages in Computational Chemistry." (4 months)

Colleen Lanier Christiansen (Harvard University). Ulliyot Scholar. "Making Laboratory Practice "Good": Negotiating Transnational Toxicological Standards for Chemical Testing (1971-2010)." (2 months)

Michael J. Lansing (Augsburg University). Doan Fellow. "The Cradle of Carbohydrates: Minneapolis and the Making of the World's Food." (3 months)

Lucia Lewowicz (University of the Republic Uruguay) Herdegen Fellow. "(Re)constructing and Disseminating Scientific Knowledge: Liebig's Laboratory in Fray Bentos, Uruguay, and the Curious Case of the Industrial Fertilizer." (3 months)

Sarah J. Reynolds (Indiana University). Science History Institute Fellow. "Making Knowledge in the Laboratory: Intersections of Science, Philosophy, and Education in the Origins of American Laboratory Instruction." (2 months)

Anthony S. Travis (The Hebrew University of Jerusalem). Science History Institute Fellow. "A Biography of the Chemist and Darwinian Raphael Meldola." (1 month)

Ashgate Titles now available as Routledge Paperbacks

Bill Brock wished to draw to the attention of readers the news that many Ashgate books of interest to historians of chemistry in the "Science, Technology & Culture 1700-1945" series are now available as cheaper paperbacks from Routledge. Bill points out that his own, "William Crookes (1832-1919) and the Commercialization of Science" (2008) is, for example, now available at the price of £39.99 compared with the hardback which, at £120.00, is considerably more expensive. Some of Ashgate's Variorum volumes may also be available, for example David Knight's "Science in the Romantic Era" (1998) is reissued in Routledge's Romanticism series. At present, however, most books, such as Bill Brock's "Science for All" remain available only as hardbacks, currently costing £105.00.



Membership Discounts on Routledge Publications

SHAC members are also reminded that they are currently eligible to receive a 30% discount on Routledge, CRC Press, and Taylor & Francis books. Details, including the promotional code, are available through the membership pages of the Ambix website: <http://www.ambix.org/membership/>. Here members are instructed to visit www.crcpress.com or www.routledge.com to select the titles they wish to purchase. The promotional code should be entered during checkout. The current voucher and code expire on 31 December 2018.

New RSCHG Wheeler Lecture Published Online

Since 1997 the Royal Society of Chemistry Historical Group have published Occasional Papers, which are the texts of lectures given by notable historians of chemistry to the Group. From occasional paper number three, published in February 2003, the papers record almost all of the Wheeler Lectures given to the Group. In June 2018, Jeffrey I. Seeman's Wheeler Lecture, *Woodward's Unpublished Letters: Revealing, Commanding and Elegant. Part 2*, was published in hard copy and online. The paper presents a collection of excerpts from letters written by R. B. Woodward to his friends, colleagues and others. These are representative of his lengthy correspondence and illustrate many aspects of his personality and philosophies of life.

In addition to Jeff Seeman's paper, Peter J.T. Morris, *Robert Burns Woodward in His Own Words* (April 2017); Anthony S. Travis - *Nitrogen, Novel High-Pressure Chemistry, and the German War Effort (1900-1918)*, (April 2015) and Frank A.J.L. James - *'the first example ... of an extensive scheme of pure scientific medical investigation': Thomas Beddoes and the Medical Pneumatic Institution in Bristol, 1794 to 1799*, (November 2016) have been published as PDFs, and copies can be downloaded from the following websites:

<http://www.rsc.org/Membership/Networking/InterestGroups/Historical/occasional-papers.asp>

<http://www.sbcs.qmul.ac.uk/rschg/>

The first six Occasional Papers by Mary Archer, Robert G.W. Anderson, Seymour H. Mauskopf, David Knight, William H. Brock, David Knight and Colin A. Russell are currently only available in hard copy and can be found in the Royal Society of Chemistry Library, the British Library and the Whipple Library. It is hoped they will all be available online in due course.

Anna Simmons



Humphry Davy: Laughing gas, literature and the lamp: Free online MOOC

Dr Andrew Lacey has brought to the Society's attention information regarding a forthcoming FutureLearn MOOC produced by Lancaster University and the Royal Institution of Great Britain: 'Humphry Davy: Laughing gas, literature and the lamp'.

The MOOC is intended for anyone with an interest in Humphry Davy, or early nineteenth-century literature, science, or history. It will explore some of the most significant moments of Davy's life and career, including his childhood in Cornwall, his work at the Medical Pneumatic Institution in Bristol and the Royal Institution in London, his writing of poetry, his invention of his miners' safety lamp, and his European travels. The course will also investigate the relationships that can exist between science and the arts, identify the role that science can play in society, and assess the cultural and political function of science.

The course will start on 29 October 2018, and will run for four weeks. Learners will typically spend three hours per week working through the steps, which will include videos (filmed on location at the Royal Institution), text-based activities and discussion, and quizzes. Learners will be guided at all stages by a specialist team of Educators and Mentors. It's entirely free to participate, and no prior knowledge of Davy is required.

If you have any questions, please direct them in the first instance to the Lead Educator, Professor Sharon Ruston (s.ruston@lancaster.ac.uk)

REPORTS

Subject Development Award

“Order, order!” AdHoc Takes Back Control.

Karoliina Pulkinen, Ad Hoc, Department of History and Philosophy of Science, Cambridge University

In September 2017, AdHoc (Association for the Discussion of History of Chemistry) reconvened after a short hiatus. The theme for the academic year was “Order in Chemistry.” The meetings were held in the Department of History and Philosophy of Science in Cambridge.

The organiser – who has a background in chemical classification – was surprised and delighted by the variety of angles from which ordering could be approached. Attendees of AdHoc learned about controlling an experiment (Klaus Ruthenberg), controlling chaos (Konstantin Kiprijanov) and ordering know-how (Jean-Pierre Llored), not to mention ordering the public through chemical gas tests (Alex Mankoo). Ordering through classification also featured in unexpected ways, as Chris Campbell



demonstrated with the examples of Charles Peirce and Josiah Cooke. Due to a cancellation, the organiser jumped in to inject some more material on classification by delivering a paper on Mendeleev. Steven Irish and Frank James made sure that mineralogy and crystallography were also included in the programme, telling us about corundum stone and Humphry Davy's mineral collecting respectively. Questions of order in a more general level were addressed by Vanessa Seifert's paper, which argued about the unification of chemistry and physics, and added some philosophy to the history-heavy season of AdHoc. And, in an age of sensationalism, what could be more appropriate than Carolyn Cobbold's paper about Victorian sensationalism and coal-tar.

We thank SHAC for the generous support that allowed us to invite speakers from close and from afar. As a final addendum, the organiser is happy to report that the post-meeting beverages (usually enjoyed at the Eagle or the Bathhouse) were enjoyed in an ordered manner.

AdHoc Meetings that took place in 2017-2018

25.9.2017

Klaus Ruthenberg

"The history of the glass electrode for pH measurement."

2.10.2017

Alex Mankoo

"Ordering Public Bodies in Wartime through Chemical Control: Gas Tests in WWII Britain."

30.10.2017

Steve Irish

"The Corundum Stone and Crystallographic Chemistry."

6.11.2017

Konstantin Kiprijanov

"Challenging Chemical Chaos during the Cold War: The Case of the BelousovZhabotinsky Reaction."

13.11.2017

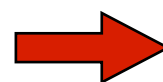
Jean-Pierre Llored

"How do chemists order their knowledge and know-how?"

22.1.2018

Chris Campbell

"Josiah Cooke and Charles Peirce: North American chemists in search of orderliness."



5.2.2018

Karoliina Pulkkinen

“How Mendeleev’s valuing of completeness relates to making predictions.”

19.2.2018

Carolyn Cobbold

“The wonders of Coal tar: when chemistry became a nineteenth century media sensation.”

5.3.2018

Vanessa Seifert

“The integration of history and the philosophy of chemistry: how historical evidence can be used in support of a unificatory understanding of the relation of chemistry and physics.”

14.5.2018

Frank James

“Humphry Davy’s Mineral Collecting for the early Royal Institution.”

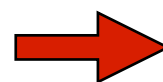
SHAC New Scholar Awards 2017

Megan Piorko, PhD Candidate & Instructor, Department of History, Georgia State University

In accordance with my award application, I completed dissertation research in London and Oxford from May 2018 through July 2018. I visited the British Library, the Wellcome Collection, the Royal College of Physicians, and the Bodleian Libraries. The rare materials that I viewed at these institutions included various copies and editions of Arthur Dee’s book *Fasciculus Chemicus* and Elias Ashmole’s *Theatrum Chemicum Britannicum*, as well as manuscripts and archives pertaining to these texts. Within these texts I was searching for material and recorded evidence of Arthur Dee’s alchemical philosophy and the use and reuse of his text. Additionally, this award allowed me to view two manuscript versions of *Fasciculus Chemicus* that are extremely unique and are examples of mutual exchange between alchemical scribal and print culture during the seventeenth century.

While in London on research I was also afforded the opportunity to facilitate SHAC’s Annual Post-Graduate Workshop at the Royal Institution as well as attend the Alchemy and Print Culture meeting at University College London. These events informed the direction of my dissertation and presented me with various new leads to some of my research questions.

After this research trip I will organize my evidence from the libraries in London and Oxford in conjunction with the work from my fellowship at the Science History



Institute and begin writing my dissertation, which is tentatively titled, “Chymical Collections: Seventeenth-Century Textual Transmutations in the work of Arthur Dee and Elias Ashmole.” I have been accepted to present this research at both the History of Science Society and Renaissance Society of America meetings this upcoming academic year. I also plan on presenting and receiving feedback on this work at the next SHAC Post-Graduate Workshop.

Institute of Physics lecture, London **“The Newtonian Moment”**

21 March, 2018

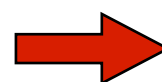
In a creative departure from the IoP’s usual single-lecturer format, history was mixed with science demonstration and with poetry.

Anna Marie Roos (a historian of science and a former SHAC council member) and **Fabien Paillusson** (a physicist), both of the University of Lincoln, covered the genesis of Newton’s mechanics in its social and intellectual context.

A minor point, nevertheless of likely interest to Chemical Intelligence readers, is that Newton’s interest in alchemy/chemistry preceded his well-known experimenting in Cambridge: as a youngster, he had lodged with an apothecary and had made at least one firework.

The presenters used a spectacularly good computer simulation to display the appalling complexity of the movements of the sun, moon, and planets in a geocentric coordinate system, thereby illustrating why Newton’s predecessors; Copernicus, Galileo, and Kepler had preferred, on grounds of simplicity, a spinning earth orbiting the sun.

Newton described the physical world, both terrestrial and astronomical, by means of (i) absolute uniform space and time (in which space the sun could be treated as almost stationary), (ii) his three laws of motion, and (iii) his four rules of reason. Agreement with observation and experiment could be achieved if to these one added an inverse-square law of universal gravitation. Newton disposed of “common sense” arguments against his mechanics by calculation: for instance, the fact that the earth’s spin was undetectable directly by human senses or by a single local experiment did not disprove its existence – the calculated effect was too small for such detection though it was detectable by timing a pendulum at significantly different latitudes. Philosophical objections (a) to Newton’s concept of space because it was infinite and (b) to his force of gravity because it had no explanation were dismissed by Newton; he defined himself as a “natural” or “experimental” philosopher, not a pure one, and if God had so made the world, Newton was content.



Anna Marie's and Fabien's presentations were complemented by a reading of his own poetry by **Andrew Wynne Owen**, whose subjects included Tycho Brahe and Edmund Halley. Andrew is a Fellow of All Souls College and has published *The dragon and the bomb* and *The multiverse*.

Report by Michael Jewess

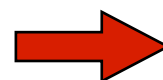
History of Chemistry Group, Société Chimique de France, Paris
“A cultural heritage to be revealed: heritage of chemistry”

19 June, 2018

The Chemical Society of France ([Société Chimique de France](#)) is a sesquicentennial association created in 1857 for the promotion of chemistry, considering both theoretical and applied chemistry as well as its impact in education and society. The SCF currently has more than 5000 members and one of its sections ([Groupe d'histoire de la chimie](#)) is dedicated, since its foundation in 1991, to the history of chemistry. It organises conferences, seminars, and workshops, such as the most recent one titled *A cultural heritage to be revealed: heritage of chemistry* ([workshop, Paris, June 19, 2018](#)), organised by Danielle Fauque (Groupe d'histoire de la chimie & GHDSO-Université Paris Sud / Paris Saclay), Florence Hachez-Leroy (CILAC & Université d'Artois & CRH-EHESS) and Brigitte Van Tiggelen (Mémosciences & Science History Institute).

The seminar, which was attended by more than 50 people, was held within the framework of the [European Year of Cultural Heritage](#). Its aim was to share different initiatives on the identification, preservation, study and use of the material culture of chemistry, both public and private. The first communication was presented by Michel Cotte (Université de Nantes) and dealt with *The position of techno-scientific heritage within the UNESCO conventions*. It was focused on the world heritage programme developed by [UNESCO](#), which since 1972 has been recognising elements linked to science and technology in general, but only a few related to chemistry in particular. One of the lines of work in such an international context is to compare the definitions of "industry", "science" and "architectural styles", which vary in different countries, as well as define the categories that are part of the heritage of science, technology and industry. In this sense, some of the elements included in the list of protected spaces refer to buildings that integrate technological processes, to industrial urbanism, to industry such as *relic landscape*, to technical, hydraulic, scientific and botanical heritage, as well as to other spaces in which science and technology is an associated value.

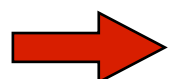
The second communication was presented by Paul Smith (Ministère de la Culture); *Buildings and landscapes of industry, inventing a heritage*, and described the process to build the notion of industrial heritage, mainly in the United Kingdom and France.



After the Second World War, there was an interest in the United Kingdom in the re-use of old ship canals and historic steam locomotives and railways, as well as public campaigns against the demolition of industrial monuments, such as the Euston Arch, and the occupation of abandoned industrial spaces for cultural uses. As a result of these initiatives, the [International Committee for the Conservation of the Industrial Heritage](#) was founded in 1973. In the French context there were also similar campaigns, such as the one against the demolition of the Les Halles market. These studies contributed towards building the notion of the *ecomuseum* in the 1970s, with the aim of linking the protection of spaces with their natural and social environment.



Later on, Yoanna Alexiou (Université libre de Bruxelles) presented the paper *The Solvay Science Project: a brief history of a long-term interdisciplinary team working process*. She discussed a project of preservation, digitisation and the study of documentary collections of the Solvay Foundation. The archive of this industrial group created by the Belgian chemist Ernest Solvay (1838-1922) is extremely rich, and allows the [virtual](#) access to proceedings of the Solvay conferences, or oral story projects linked to the group's factories. Actually, more work is being done to include more materials, as well as to create specific sections, such as the ones on chemistry and women, scientific controversies, or Nobel prizes, that will provide a better understanding of the legacy



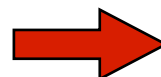
preserved. In addition, the study of this collection can allow future research on the history of twentieth century physics and chemistry.

The fourth communication by Sébastien Soubiran (University of Strasbourg); *A prestigious heritage for a University of Excellence: preserving the scientific heritage at the University of Strasbourg*, studied the rich scientific heritage existing in Alsace and Strasbourg, in many cases linked to Nobel laureates, and well-known figures in the history of industrial chemistry. Despite the fact that many documentary and heritage elements linked to chemistry are not preserved in the university, there is considerable interest in the preservation of the remaining scientific heritage. One of the objectives of these heritage projects, developed by the university of this border city, aims to show the role of science in the conflicts and power struggles between France and Germany in the nineteenth and twentieth centuries.

The fifth communication was given by Ernst Homburg (Maastricht University); *Chemical Materials as Heritage: The Hafkenscheid Collection (ca. 1825) at Haarlem*. It was focused on an exceptional collection of more than 370 pigments and other pictorial materials. It is a unique collection due to both its content and its origin, linked to a historic family of Dutch pigment manufacturers of the eighteenth, nineteenth and twentieth centuries, now consolidated as a powerful chemical industry. The collection was created in the period 1800-1830. It has been historically studied, and it has also been scientifically examined, thanks to many chemical analyses, spectrographic and polarographic tests, and electron microscope scans. Currently the collection is part of the [Teylers Museum](#), and continues to be studied. This collection provides a better understanding of the relationship between the history of pigment making, and the history of the economy, trade and art. It also allows us to know in more detail how these products were made, how different products were mixed to obtain the colours, and the impurities of the products. It also allows consideration to be given to the specific nomenclature of these products, which does not always coincide with that existing in the books and treatises of their time.

The penultimate communication, by Laetitia Maison-Soulard (Ministère de la Culture); *Le bassin de Lacq: Exemple d'un programme complet de valorisation*, showed a vast program of study of the existing cultural heritage in the mining and industrial area of Lacq (Aquitaine, France). This area grew since the 1960s due to the exploitation of a new found gas field, which led to the creation of gas pipelines, factories and even a new city (Mourenx), all this despite the knowledge that the gas field would be exhausted several decades later. The subsequent oil crisis and the European industrial restructuring has been a great challenge to this region that has considered the revitalisation of its industrial heritage as an opportunity to renew the area. Among the different initiatives to achieve this, a complete [heritage inventory](#) has been developed with great attention to industrial urbanism and the history of the mines and factories in the area.

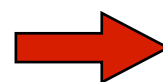
Finally, a paper presented by Ignacio Suay-Matallana; *The COMIC project: working with collections in Spanish secondary schools and universities*, examined the research projects on scientific heritage done at the “López Piñero”



Interuniversity Institute of Valencia (Spain). It discussed the catalogues, and material culture studies done by the Commission of Scientific Instruments ([COMIC](#)) with regard to the collections of the University de Valencia, and several historical secondary schools of that region. Their new projects on scientific heritage were also shown. They include the organisation of temporary and permanent exhibitions at the Institute, the creation of a virtual project on the history of science education, titled *Science in the Classrooms (1800-2000)* ([HISENCIEN](#)), the organisation of seminars on instruments addressed to local science teachers ([Hands-on seminar on Scientific Instruments](#)), and the collaboration with other international groups specialising in the study of scientific instruments ([A cultural material do laboratório da Alfândega de Lisboa](#)).

The meeting was closed after a round table with Florence Hachez-Leroy (University of Artois), Catherine Cuenca (CNAM), Alain Beltran (CNRS), Nicolas Coupain (Solvay), and Daniel Demellier (Institute Pasteur). They discussed contemporary problems of scientific heritage related to energy production, based on both older processes, such as coal and gas, as well as the most recent eolian and photovoltaic technologies. Among other issues, it was pointed out how the study of this heritage can facilitate the meeting of different actors related to the production, regulation and use of energy, such as consumers, industry local authorities, governments, universities and museums. In this sense, the role of some industrial groups and scientific foundations was also discussed, such as the Solvay group or the Pasteur Institute, which has had a strong international presence for decades. The conservation and use of its material and archival heritage should not be limited to the celebration of commemorative events, but should allow reflections on a wide range of historical and contemporary issues. The need to develop public strategies to concentrate efforts for the preservation of heritage was also discussed. A magnificent example is the program developed in France to protect, study and enhance the contemporary scientific and technical heritage ([PASTECC](#)). Thanks to this project, a complete patrimonial inventory has been carried out, organised by representatives of different areas of knowledge and including numerous collections from different cities, facilitating their joint study. Finally, the other conclusion of the round table, and the seminar in general, was the need to consider the heritage of chemistry from a broader perspective. This includes the conservation and study of the most representative factories and laboratories and the most prestigious chemistry spaces, but also the attention to forgotten spaces, such as polluted mines, toxic places, dangerous deposits or spots linked to environmental risks in the past and present. Possibly the consideration of both types of spaces, the most prestigious and the invisible, will facilitate the necessary connection between the historical study of the scientific heritage and the challenges of the present day science.

Ignacio Suay-Matallana,
[Universidad Miguel Hernández,](#)
isuay@umh.es



Society for the History of Alchemy and Chemistry Spring Meeting Alchemy and Print Culture

Room 728, UCL Institute of Education (IOE), 20 Bedford Way, London

30 June, 2018

The Society's Spring Meeting took as its theme 'Alchemy and Print Culture', and participants enjoyed papers from four speakers, each of whom spoke on a different aspect of the subject. Taken together, the presentations provided an illuminating and coherent account of what is a broad topic for scholarly investigation.

Didier Kahn (CNRS/Université Paris-Sorbonne) delivered the first paper, taking as his subject, 'Willem Silvius and the publication of Denis Zecaire and Bernardus Trevisanus in the context of the sixteenth-century alchemical publishing movement'. He started by offering a general introduction to some of the early publishers of printed alchemical texts. Charting the development of publishing, he began with Andreas Osiander and the bringing to print of the pseudo-Geberian corpus in 1541. Osiander already had a list of alchemical treatises in his possession that he was willing to print. Didier moved on to discuss Johannes Petreius, the Nuremberg printer who, amongst other works, published the pseudo-Lullian corpus in 1546. After this introduction, which traced the key names in alchemical printing through to Lazarus Zetzner, and the *Theatrum Chemicum*, Didier presented a case study of the pseudonymous French gentleman philosopher, Denis Zecaire, whose works were first published in 1567 by Willem Silvius, renowned as the publisher of John Dee's works. Zecaire provides an example of the use of pseudo-epigraphy in alchemical writing and offers the possibility of learning more about this practice, exemplified by Bernard Trevisanus, whose name was attached to a number of sources to provide a composite identity, linked to the fourteenth-century alchemist, Bernard of Trier.



Peter Forshaw (University of Amsterdam) presented his paper on 'Arcana Illustrata: Early Modern Alchemical Image Cycles in Print'. As the title suggests, Peter's focus was on tracing the development of the use of images in printed alchemical texts, but his starting point was the woodcuts whose use dated back to the fourteenth century, and which appeared in alchemical incunabula. Copperplate prints were also a feature of early works. Peter presented many images to show how printers started to use increasing numbers of woodcuts, the quality of which was improving significantly in printed



works. High quality woodcuts were hand coloured and used to produce items such as maps in ever greater quantities.

The German printer, Johann Grüninger, who published the works of Hieronymus Brunschwig (c. 1450 - c. 1512), provided an example of the use in print of images of alchemical equipment, such as vessels and furnaces, and of the herbs used in medicinal distillations. These high quality images came to be recycled for use in different books, Peter providing many interesting visual examples of this practice. Other developments included the first use of italics by the Venetian printer, Aldus Manutius, and the creation of smaller volumes, for ease of portability. Alchemy was characterised by its use of symbolic and figurative images and these were adopted in the print medium in ever more sophisticated forms, including the figurative sequence. Also depicted were the alchemical allegories, many of which employed sexual imagery.



Peter was able to illustrate how the printers enhanced their techniques and skills to produce images that elucidated the works of alchemists such as Trithemius, Reusner, Maier and, of course, Khunrath, until the highest quality engravings formed a principle element of the finished product.

After lunch, Jennifer Rampling (Princeton University) took as her subject; 'From Script to Print, and Back Again: The Making of Elias Ashmole's *Theatrum Chemicum Britannicum* (1652). Ashmole's practice was to make notes and collate materials, and to make comparisons between different versions of the same works. Jenny took the example of Charnock's *Ænigma* to illustrate Ashmole's practices, evidence from his annotations how he appeared to value the best version of a work, rather than the first. He also copied an illustration, even though it was not Charnock himself who had drawn it. What was significant was that Ashmole, through his handwritten annotations, was correcting and adding information to a printed copy of a work. He was contributing through his own reading of the work.



Jenny showed, by reference to Ashmole's own version of *Bloomfield's Blossoms*, how he had clearly located another version of the text from the one he was annotating, and drawn boxes where the illustrations, missing from his copy, ought to be. The only manuscript of William Bloomfield's work that is illustrated is BL Sloane 3706, to which Ashmole must have gained access. Other examples of Ashmole's



annotating practices were cited, showing that, where he found additional information in other copies or sources, he added this in handwritten notes to the printed version.

Finally, Jenny showed how Ashmole's notes and annotations had been useful in preserving text and illustrations in circumstances in which an earlier version had been damaged or lost, citing the example of a manuscript relating to George Ripley, the original of which had been partly burned in a fire. Ending with Ripley, Jenny illustrated how Ashmole must have seen and copied verses belonging to a version of one his emblematic scrolls. That scroll has only been rediscovered in recent years, having been in private hands. It has now been purchased by the Library at Princeton.

Last to present his paper was Stephen Clucas (Birkbeck, University of London), who took as his topic '*E bibliotheca nostra Typographis: the Nuremberg printer Johannes Petreius and the promotion of alchemy*'. Stephen set out to establish, through his exploration of Petreius, the extent to which the print business was responsible for framing the nature of alchemy in the sixteenth century. Presenting him as a 'scholar printer', the case study illustrated how a printer such as Petreius, who had gained a BA and an MA at the University of Basel, actually worked alongside the author, making decisions about the content of a work. Basel saw the emergence of this alliance between the printer and the Humanist scholar, and Stephen illustrated the impact that this relationship had in bring innovations to the printed form. Petreius and his like added Greek and Hebrew type to the conventional Roman, and brought to print the works of Humanist scholars, such as Erasmus and Melancthon.



Petreius became known as a publisher of mathematical and scientific texts, publishing Cardano, and Copernicus' *De Revolutionibus*, which included 142 woodcut illustrations, in 1543. A constant theme evident in his publishing output was the fact that he undertook the work at his own expense. The Humanist impulse was to collect many versions of the same text. Stephen ended his presentation by emphasising the significance of the *Theatrum Chemicum Britannicum* as indicative of the emergence of an alchemical 'republic of letters', demonstrating that alchemical publication had arrived in the public sphere.



9th Annual SHAC Postgraduate Workshop Experience and Experiment: Materiality of (al)chemical texts and objects

The Royal Institution, London

29 June, 2018

The 9th Annual Society for the History of Alchemy and Chemistry Post-graduate Workshop, held at The Royal Institution on 29 June 2018 attracted 20 participants. The topic was "Experience and Experiment: Materiality of (al)chemical texts and objects." We had presentations by the following post-graduates:

Mike Zuber, University of Oxford, "Peter Moritz as Robert Boyle's 'Crosey-Crucian': Experiment, Materials, and the Immateriality of Alchemical Knowledge"

Twyla Ruby, University of California, Los Angeles, "Vigani's Cabinet and the Matter of Eighteenth-Century Chemistry"

Alexander Lowe McAdams, Rice University, "The Secret of Secrets: Alchemy, Pseudo-Aristotle, and the Quest for Truth in Early Modern Europe"

Kersti Francis, University of California, Los Angeles, "Decoding the Liber Aureus: Secrecy, Alchemy, and the Erotics of Knowledge in Sixteenth-Century England"



Agnieszka Rec, *Speculum: A Journal of Medieval Studies*, “Reading, Writing, and ‘rucibles: Alchemical Manuscripts in the Later Middle Ages and Early Modern Period”

Joanne Horton, De Montfort University, “The Artisan Inventor’s Notebook: an examination of the role of text, illustration and experimentation in the advancement of nineteenth century electro-metallurgy”

Meagan Allen, Indiana University, “Replication of Sir Isaac Newton’s Alchemical Experiments in Portsmouth Add. MSS 3975 and 3973: Regulus of Antimony Produced with Various Metals”

Elisabeth Moreau, Université Libre de Bruxelles, “A Most Wanted Ingredient: Balsam in Early Modern Alchemy and Medicine”



The keynote presentation, given by Professor Jennifer Rampling, Princeton University, was titled "Reading (with) alchemical images". We also had enjoyed three roundtable discussions:

1. Reexamining Mistaken and Forgotten Knowledge
2. The Authority of Secrecy in Early Modern Alchemy
3. Recipes, Notebooks, and Manuscripts as Evidence of Experimentation

The day ended with a tour of the Royal Institution’s chemical texts and objects, led by Head of Collections, Professor Frank James.

The workshop was sponsored by the Royal Institution and the Society for the History of Alchemy and Chemistry

Megan Piorko, SHAC Student Representative



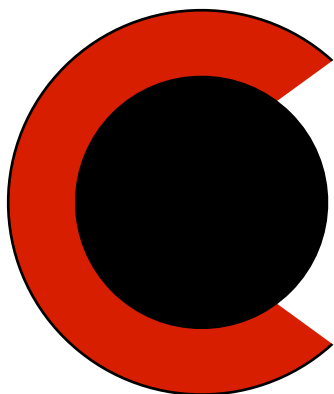


NEW MEMBERS

SHAC welcomes the following new members;

Meagan Allen, Indiana University
Riccardo Ariosio, CEFAS, UK
Howard Barth, Wilmington
Dora Bobory, New Zealand
Louise Burnham, Middlebury College, VT, US
Dr Christopher Campbell, UCL, UK
Shailesh Dhiman, Hawthorn Woods, Illinois
Emily Eames, San Francisco
Aden Gan, Singapore
Margaret Garber, California State University
Christine Griffiths, Riverhead, NY
Ianto Jocks, University of Glasgow
Hartmut Kutzke, University of Oslo
Sarah Lang, Graz
Wenjing Li, Beijing
Magdalena Luszczynska, Tel Aviv, Israel
Alexander McAdams, Rice University, US
Timothy Mock, Washington DC
Sarah Nielsen, University of Waterloo, Canada
Justin Niermeier-Dohoney, University of Chicago
Monique O'Connell, Wake Forest University, NC
Marco Panciroli, RE
Arosio Riccardo, Lowestoft
Carmen Bartl-Schmechel, New York University
Gina Surita, Princeton
Kim Walker, Royal Holloway and Royal Botanic Gardens Kew
Grace Zuber, University of Basel





We welcome any contributions that newsletter readers might wish to make to *Chemical Intelligence*. This includes, but is not limited to:

- Upcoming Conferences or Meetings
- Publications
- Conference or Meeting Reports (these should not normally exceed 1,000 words)
- News Items or Announcements
- Grants, Fellowships or Awards
- Reviews of Websites, projects or blogs of interest (up to 500 words)

The Editor retains the right to select those contributions that are most relevant to the interests of the Society's members.

We also wish *Chemical Intelligence* to provide a platform for interaction between members. We therefore encourage you to submit:

- Questions you may wish to put to other members
- Materials that you are working on and wish to share
- Suggestions for improvement

For any queries regarding the content of *Chemical Intelligence*, or to propose material for inclusion in future issues, please contact the **Editor: Karoliina Pulkkinen**, Email: kjp@cam.ac.uk

WWW.AMBIX.ORG

Society for the History of Alchemy and Chemistry

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 Taylor & Francis and appears quarterly. Members also receive the Society's newsletter, *Chemical Intelligence*, twice yearly, and any new editions from the Sources of Alchemy and Chemistry volume.

Application forms and membership information may be found on the Society's website, <http://www.ambix.org/>, under 'Membership'.

For all membership questions, please contact the **Membership Secretary, Dr Carolyn Cobbold**.
E-mail: newjoiner@ambix.org