



CHEMICAL INTELLIGENCE

Summer 2020 issue

Society for the History
of Alchemy and Chemistry



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Dear SHAC Members,

The last three months have been a quite extraordinary time which has affected everyone and every institution without exception. In academia this has meant, among other things, on-line teaching and supervision, meetings cancelled to be replaced with Zoom/Skype/Teams, conferences cancelled and replaced with on-line events and so on. None of this is even close to ideal, but the best that can be done in the difficult circumstances.

SHAC has been directly affected in a number of ways. First all we have not been able to hold any meetings this year and at the moment we have yet to plan dates for meetings next year. Furthermore, almost certainly, this year's AGM will need to be held on-line, the details of which will be circulated later. We have taken the view that until we know more about what will be possible regarding holding physical meetings in the future, not to mention how people will get to them safely, there is little point in undertaking detailed planning at the moment. As soon as things become sufficiently clear we will then start planning. In the meantime, we will be arranging a series of short on-line talks, further details of which will be circulated electronically.

The crisis has also affected the physical distribution of *Ambix*. The papers became available on-line as usual, but the despatch of the May number was held up because of issues related to printing, warehousing and logistics. However, distribution has now begun and if you have not already received your copy you should do so shortly. At the time of writing there appear to be no logistics issues surrounding the August edition, but in current circumstances that can, of course, change with little notice.

When I wrote to you in March I mentioned that because of the crisis we have suspended the rule that unpaid members will be removed from the membership list at the end of June; for this year all members will receive all four issues of *Ambix*, and can access all past issues of *Ambix* online by logging in at www.ambix.org. However, there are still around forty members who have not yet paid for 2020 but we would of course be grateful for the payment of outstanding subscriptions! Our membership secretary will be in touch with reminders in due course.

In the longer term, and not related to the current crisis, we are very concerned about the future financial stability of *Ambix* (and thus of the Society since the journal contributes about two thirds of our income) due

to the possible imposition by UKRI of open access requirements. If we were to lose this income, then we would be left with no option but to significantly increase our annual subscription and scale back the Society's activities. On behalf of the Society I have made representations in the form of open letters to Sir Duncan Wingham, co-chair of the steering group of the UKRI open access review, which are included below; gratifyingly, this prompted a significant number of other learned societies to also write to UKRI along the same lines. Disturbingly, I have not received any response from UKRI to the general questions posed in the second letter which should give us cause for concern about UKRI's attitude towards academic freedom. I have also signed a joint letter from a consortium of learned societies to various ministers asking for a new deal for universities when they re-open as non-on-line institutions. Although MPs obviously have other things on their minds at the moment, if you could write to yours about these issues, it would be helpful as I do feel that in this case numbers matter. I have also written to the EU Commissioner for Innovation, Research, Culture, Education and Youth regarding the open access policy proposed in the Horizon Europe Model Grant Agreement which has similar implications.

Elsewhere, SHAC continues its work in awarding grants (though with slightly different conditions on timescale because of the crisis), expanding its social media presence, producing *Chemical Intelligence* and so on. I am enormously grateful to everyone involved for their tremendous efforts in keeping SHAC going in these difficult and strange times. Also, I was pleased to see that Mike Zuber won this year's Partington Prize. Earlier this year, before lockdown, I was privileged to meet Partington's daughter to advise her what she should do with various papers of her father's (my advice was to deposit them with his other papers at the University of Manchester).

As I write this we are about half-way through a quite extraordinary year and I hope by this time next year, we will be in some sort of 'new normal' and will be able to return to planning for future activities with some confidence that we will be able to deliver them.

Keep safe and best wishes

Frank James
SHAC Chair

Dear Sir Duncan,

I am writing this open letter to you in your capacity as co-chair of the steering group of the UKRI open access review to briefly outline the impact that the implementation of an ill-considered open access policy will have on learned small societies and their disciplinary areas. I write as chair of the Society for the History of Alchemy and Chemistry (SHAC) which, founded in 1935, is the only stand-alone society in the world devoted to alchemical and chemical history in its intellectual, social and cultural contexts. SHAC shall also be submitting a response via the review website, although with sixty-eight questions it is, in my view, not structured to encourage input from societies run entirely by volunteers. Furthermore, I feel that the idea, implied by UKRI, that there should be one OA policy covering all disciplines, from neuroscience to ancient Greek, is overly simplistic.

SHAC is registered as a charity in England and Wales and is currently in the process of converting to a CIO. Its membership, which is open to all with an interest in the subject, stands at just under three hundred from all around the world who are largely, but not exclusively, drawn from academic institutions. The members elect a Council and Officers who, with some non-Council members, spend a significant amount of time and effort running the Society without any paid employees

SHAC publishes a highly-regarded quarterly journal, *Ambix*, now in its sixty-seventh volume, twice a year an electronic newsletter, *Chemical Intelligence*, awards the Partington Prize and small grants, organises (during normal times) two meetings a year as well as sponsoring sessions at major national and international conferences and is currently increasing its social media presence. Further details can be found at <https://www.ambix.org/>

All this costs money. SHAC charges an annual membership fee of £40 (with the usual concessions), but around two thirds of its income comes from *Ambix* which is published on the Society's behalf by Taylor and Francis. This income is mostly derived from institutional and consortia subscriptions as well as individual downloads. Complete open access would in pretty short order decimate this income stream thus forcing SHAC either to cut back on its activities (many of which are directed towards supporting the development of younger scholars) or to increase the subscription rate for members drastically.

I am deeply concerned by the apparent lack of consideration by those pushing for OA of the enormous damage that will be done to learned societies, like SHAC, and to the delicate ecology of the research environment which such societies have developed over the last few decades as an integral part of academia. This destruction of a valuable part of academic life will

hamper both the development of many disciplines and the progress of individual, particularly young, scholars well into the future.

On an ideological level, within and outwith SHAC the subject of OA has been discussed over the last couple of years at great length. I have come to the conclusion that, though not ideal for a number of reasons, learned societies could live with the depositing of an accepted typescript in an OA repository on publication, but it cannot be acceptable, in any circumstances, that hybrid journals, such as *Ambix*, which currently publishes both OA and non OA papers would in the future be deemed inadmissible by UKRI as a place of publication. Such a restriction on where papers may or may not be published seems to me an extraordinary attack on academic freedom

Yours sincerely
Frank James MAE
SHAC Chair
Professor of History of Science,
UCL

Dear Duncan,

Thank you for your prompt, albeit brief, reply to my open letter to you on Monday. Of course, I would not have expected you to discuss the minutiae of how the implementation of OA policies would specifically affect the Society for the History of Alchemy and Chemistry (SHAC) and our journal *Ambix*.

However, given the evident large resources which UKRI has put into developing its plans for OA, I should have thought it would be easy for you and your colleagues to direct me to links or provide references for UKRI's position on the enormously important general issues that OA implementation raises. To recap these are:

1. Does UKRI believe in academic freedom? This term is not used once in the forty-eight page consultation document. I would be grateful if you could let me know where UKRI's policy on academic freedom is stated and

how it squares with the nine references to sanctions (on pp.36-7) that might be taken in the event of OA non-compliance?

2. Could you please let me know where I can find UKRI's rationale behind the assumption that a single OA policy should be applicable to all disciplines no matter how their publication cultures differ? I note that in your reply you say that in our formal submission we should bear in mind 'the very rapidly changing nature of scientific publishing'. Whilst I appreciate that the vast bulk of UKRI funding goes towards science and allied subjects, I do feel that by your choice of wording you have neglected the arts and humanities where publication patterns are very different from the sciences. Either say these subjects don't matter or demonstratively act in the best interests of all disciplines, even it requires not having a one size fits all policy.

3. That brings me on to the topic of evidence, as I am not clear in UKRI terms what this means. SHAC and other learned societies have predicted what financial losses would be incurred by the imposition of OA on their journals. But it is only a prediction and not evidence. We will only have the evidence after the event (bit like climate change where the precautionary principle is essential). So, will UKRI underwrite losses in income to learned societies if they occur as result of your policies (for example by declaring hybrid journals non-compliant)? After all, if the losses don't happen, no one will have lost out and UKRI will have evidentially demonstrated belief in its own predictions as to the outcome of OA.

Your sincerely

Frank James MAE
SHAC Chair
Professor of History of Science,
UCL

Dr Noel Coley (1927-2020)

It is with great sadness that we report the passing of Dr Noel Coley, who died recently at the age of ninety-two. Noel was Treasurer and Membership Secretary of the Society for the History of Alchemy and Chemistry from 1982 to 2007 and kept the Society afloat financially during a particularly difficult phase in its history. A chemist by training and initially a teacher by profession, he took his MSc and PhD in the history of science at Leicester University under William H. Brock. After teaching the history of science at Wolverhampton Polytechnic, Noel became a staff tutor at the Open University's East Grinstead Regional Centre in the early 1970s. With Colin Russell and Gerrylynn Roberts, he was a co-author of the Royal Institute of Chemistry's centenary history *Chemists by Profession*. He was Chairman of the Royal Society of Chemistry's Historical Group from 1994 to 1998.

Long-standing members of SHAC will remember Noel for the integral role he played in the Society's activities. As Treasurer and Membership Secretary, he managed both individual and institutional subscriptions for the Society whilst *Ambix* was published by Black Bear and provided all the dispatch addresses for the delivery of the journal. Noel's knowledge of the Society and its workings was invaluable when I took over as Secretary in 2003. At this date all communications with members were by post and I still have a supply of the brown envelopes which Noel purchased for the Society to send out membership dues notices and flyers for meetings!

Noel was universally known for his kindness to others and his courteous manner. He is survived by Awen, his wife, Andrew, his son-in-law, and Jacqui, his granddaughter. His funeral took place on 11 June 2020 at North East Surrey Crematorium, with SHAC (and the RSC Historical Group) represented by Professor John Nicholson. A memoir by William H. Brock will appear in the August 2020 issue of *Ambix*.

Anna Simmons, with many thanks to
William H. Brock and Peter J.T. Morris

MEETINGS: SHAC's online Zoom seminar

Owing to the continuing crisis, meetings of the Society for the History of Alchemy and Chemistry have had to be suspended for the foreseeable future. We have therefore decided to run a series of hour-long on-line Zoom seminars on the history of alchemy and chemistry beginning on **21 July at 4pm BST (5pm CEST, 11am EDT, 8am PDT)**. The format will be a talk of 20-30 minutes, followed by a moderated discussion of half an hour. Anyone, member of SHAC or not, may register to attend the seminar by e-mailing meetings@ambix.org; they will be sent a link to the seminar the day before. (If having registered you do not receive a link the day before please check your junk folder').

The first speaker, to mark the publication of Humphry Davy's letters by OUP, will be **Tim Fulford**, Professor of English at De Montfort University.

“The greatest chemist that has ever appeared?”: Humphry Davy as Revealed in His Correspondence

The publication in June this year of Davy's *Collected Correspondence* gives us many new perspectives on Davy himself and on the culture of scientific enquiry in which his work was produced and consumed. In this talk, Tim Fulford, one of the editors, will present a selection of the letters and discuss, for example, the changing role of patronage, the cultivation of reputation, the institutionalisation of chemical investigation, the role of correspondence networks, relationships between poetic and scientific experimentation, and Davy's interactions with Ampère, Banks, Beddoes, Berzelius, Dalton, Faraday and Watt.

New book: The Collected Letters of Sir Humphry Davy

Oxford University Press has just published *The Collected Letters of Sir Humphry Davy*, ed. Tim Fulford and Sharon Ruston, advisory eds. Jan Golinski, Frank James and the late David Knight, with the assistance of Andrew Lacey. Eleven years in the making, SHAC contributed a couple of small grants to the project, this is the first scholarly edition of the correspondence of a man many literary critics know as the friend of William Wordsworth, Samuel Taylor Coleridge, Robert Southey and Walter Scott. He was regarded as the greatest chemist ever, having used the Voltaic pile to decompose substances and reveal new elements—including potassium, sodium, chlorine and iodine—demonstrating the forces that hold matter together to be electrochemical. He experimented with nitrous oxide, designed a mine safety lamp, and became the most charismatic lecturer of the era. He knew James Watt, Josiah Wedgwood, Erasmus Darwin, John Dalton, Henry Mackenzie, Henry Cavendish, Joseph Banks, William Godwin, Lord Byron,



Germaine de Staël, John Opie, William and Caroline Herschel and Mary Somerville. He was a controversial President of the Royal Society. His protégés were Michael Faraday and John Herschel. He was a pioneering geologist; he wrote a lot of poetry—mostly landscape verse influenced by his intimate knowledge of Wordsworth's, Southey's and Coleridge's poems (he had helped edit the second edition of *Lyrical Ballads* and *Thalaba the Destroyer*).

Chemistry week at Virtual HistSTM Community 20-24.7

Join us for a session with **Michael D. Gordin** and **Brigitte Van Tiggelen** on Thursday 23rd of July 18:00 EST/ 12:00 EDT, where we discuss “Narrating history of science through ‘big figures.’” We will take stock on International Year of the Periodic Table (IYPT19) – without forgetting the two new books *Women in their Element* and *Einstein in Bohemia*.

During the chemistry week, Virtual HistSTM will also be hosting Tillmann Taape as a special guest for a reading group ‘Reconstruction of Experiments as a Historical Method.’

For further details, please sign up to Virtual HistSTM [mailing list](#).

New to the Virtual HistSTM Community?

“The Virtual HistSTM is a digital community for historians of science, technology and medicine. The group was created after it became clear that some academics/graduate students/ECRs were interested in forming a digital community because of the COVID-19 disruptions. Our primary objective is to support members during this uncertain time.

This group was founded by Sarah Qidwai, but there are several collaborators that have contributed to its rapid growth. We have a steering committee that meets weekly to discuss plans for the following week. Daniella McCahey leads the Book Club and has collaborated with many members (Eddie Guimont and Sarah Pickman) to put together some amazing sessions. Daniella, Eddie and Megan Baumhammer have taken an active role in the steering committee. Each week there are different collaborators leading a themed week. There are a few set sessions every week including a book club and writing check-in. Different members have taken to leading each session. William Scates-Frances is coordinating the Australia/Asia Book Club and Karoliina Pulkkinen is leading the general check-in meet-up.”



News from

Science
History
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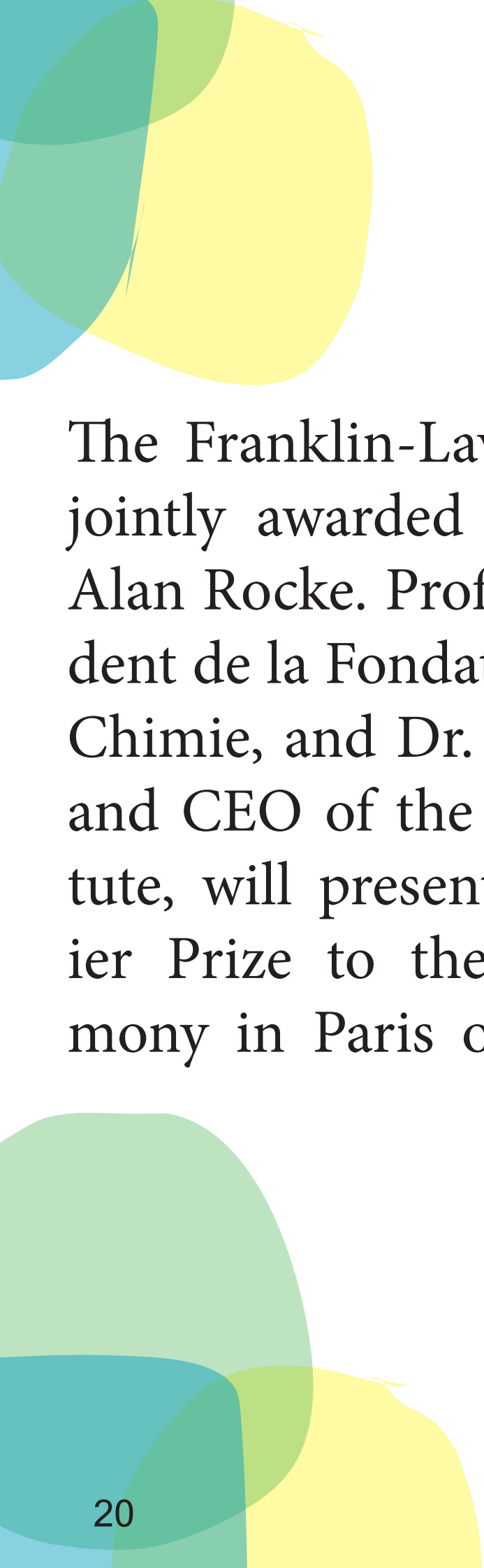


Chemistry · Engineering · Life Sciences

The Franklin-Lavoisier Prize has been jointly awarded to Mary Jo Nye and Alan Rocke

(Photo credit: Mina Carson) "The Bonds of History": A Festschrift for Mary Jo Nye, On 16 January 2015, Oregon State University





The Franklin-Lavoisier Prize has been jointly awarded to Mary Jo Nye and Alan Rocke. Prof. Bernard Bigot, Président de la Fondation de la Maison de la Chimie, and Dr. David Cole, President and CEO of the Science History Institute, will present the Franklin-Lavoisier Prize to the awardees at a ceremony in Paris on November 4, 2020.

Mary Jo Nye is a professor of history emerita at Oregon State University in Corvallis. She is being honored for her contribution to the history of the chemical sciences since the 18th century, mainly in the United States, France, England, and Germany, and to the understanding of the relationship between scientific discoveries and the resulting political and social phenomena.

Alan Rocke, a professor and emeritus member of the history department at Case Western Reserve University in Cleveland, is being honored for his historical research on the development of chemistry in Europe in the 19th century, for forging a strong bond with French historians who were also working in this field, and for the publication of many influential works.

The scholarship of the two awardees has intersected over the years, Nye and Rocke have been exchanging and critiquing and learning from each other's work since the late 1970s when Nye had done her work on Jean Perrin and "molecular reality," and Rocke was first publishing his studies of "chemical atomism."

Named for Antoine-Laurent Lavoisier and Benjamin Franklin, two of the 18th century's greatest minds, this prize recognizes unusually meritorious efforts in the preservation or promotion of the entwined scientific heritage of France and the United States. Cosponsored by the Fondation de la Maison de la Chimie and the Science History Institute, the Franklin-Lavoisier prize is awarded alternately in the United States and France every two years.

Find more on <https://www.sciencehistory.org/news/franklin-lavoisier-prize-winners-2020>

Introducing the new President of Science History Institute – David Allen Cole



On May 18, 2020, David Allen Cole became the president and CEO of the Science History Institute in Philadelphia. Prior to arriving at the Institute, he had served as the Executive Director of the Hagley Museum and Library in Wilmington, Delaware since 2013. The Hagley property includes the black powder mills established by French immigrant Eleuthère Irénée du Pont in 1802, and the first du Pont family home and garden, and is well known among scholars in the chemical sciences and technology as a premier research center for the history of American technology, business and innovation.

Dr. Cole's tenure at Hagley followed his service as Vice President of the Whitehead Institute for Biomedical Research in Cambridge, MA and as Director of Strategic Initiatives for the Harvard Art Museums of Harvard University. A graduate of Vanderbilt University, he received a master's degree from Harvard University and a Ph.D. in the History of Art and American Studies from the University of Texas at Austin.

Dr. Cole has been a Henry Luce Foundation Fellow, a Research Fellow of the Learning Innovations Laboratory (LILA) of Harvard University, and has taught at Harvard University, Rice University, and the University of Texas at Austin. He is Chair of the Board of the Delaware Council on Economic Education, a trustee of the Mid-Atlantic Association of Museums, and a member of the Philadelphia Committee on Foreign Relations.

Dr. Cole's scholarly interests have focused in recent years on the history of innovation and the development of intellectual property systems. Most recently, he curated "Spirit of Invention: Nineteenth-Century U.S. Patent Models from the Hagley Museum and Library" an exhibition exploring American patent model history that was presented by the National Museum of China and Tsinghua University in 2018 (see <https://www.hagley.org/patentmodels> and http://www.artmuseum.tsinghua.edu.cn/en/cpsj_english/zlxx/zlhg/201803/t20180323_3004.shtml).

Michelle DiMeo is Arnold Thackray Director of the Othmer Library at the Science History Institute since April 2020. Dr. DiMeo has nearly ten years of leadership experience in independent research libraries. Prior to her present position, she was Associate Library Director, Collections Development at Hagley Museum and Library and the S. Gordon Castigliano Director of Digital Library Initiatives at the College of Physicians of Philadelphia. Dr. DiMeo first joined the Science History Institute in 2014 as a short-term research fellow in the Beckman Center, which was followed by the Institute hiring her to build their first digital collections platform (<https://digital.science-history.org/>).

Her research focuses on early modern science and medicine, particularly the role of women and lay practitioners. With Sara Pennell, she is co-editor of the collection of essays *Reading and Writing Recipe Books 1550-1800* (Manchester University Press, 2013). Her book *Lady Ranelagh: The Incomparable Life of Robert Boyle's Sister* is forthcoming with the University of Chicago Press. She holds a PhD from the University of Warwick and has taught courses in a range of disciplines (History, English, and Technical Communication) at the University of Pennsylvania, Lehigh University, the University of Warwick, and the Georgia Institute of Technology.



Introducing Michelle DiMeo — Arnold Thackray Director of the Othmer Library at the Science History Institute

STUDENT AMBASSADORS

“My name is Sarah Hijmans. As one of the most recent members of SHAC, I am excited to take on the role of student ambassador in this society! I was born and raised in the Netherlands but I have lived in France since 2012, when I moved here to complete my undergraduate education at Sorbonne Université. Originally a student of chemistry and philosophy, I turned towards a historical approach during my master in history and philosophy of science at Université Paris-Diderot. While researching the concept of chemical element, I found that in order to understand how its meaning has evolved, it is necessary to study how it has been used in chemical practice. This idea developed into a PhD project at Paris-Diderot University, which I started in October 2018 under the direction of Jean-Pierre Llored. My dissertation

traces the evolution of the concept of element between approximately 1789 and 1869, by placing written definitions back into their historical context. More specifically, I study how chemists effectively determined which substances were elementary and which were not: starting from a series of case studies, I have found so far that laboratory practices were often inconsistent with textbook definitions, and analogical reasoning played an important role in the attribution of elementary status. Hopefully, these results will help clarify the relation between conceptual shifts and the development of chemical practice in general, and eventually contribute to the debate on the concept of chemical element in the philosophy of chemistry. “

A portrait of Sarah Hijmans, a young woman with brown hair and glasses, wearing a dark blue polka-dot shirt. She is looking slightly to the right of the camera with a gentle smile.

Sarah
Hijmans



Silvia Pérez Criado

“My name is Silvia Pérez Criado, I would like to briefly introduce myself as the new Student Ambassador for SHAC. I was born in Granada (Spain) in 1992. I completed a Bachelor in Chemistry at the University of Granada in 2014. In 2015 I moved to Valencia where I obtained a Master Degree in History of Science and Scientific Communication (Extraordinary Award) at the University of Valencia. Then I came back to my home town and I did a new Master Degree in Science Education at the University of Granada in 2016. I am currently a PhD candidate in Historical and Social Studies on Science, Medicine and Scientific Communication at the López Piñero Inter-University Institute of the University of Valencia. My Thesis work is focused on the uses of DDT in Spain (1939-1977), and it is organized around three groups of issues: 1.-historical actors (the role of experts, such as agronomists and health doctors, and activists and their relationship with industry and regulatory agencies); 2.-the production and uses in public health, agriculture and household (pesky insects at homes); 3.-regulations during the Francoist regime.

Last year I obtained a two-week Travel Grant from the Science History Institute to use the Othmer Library of Chemical History in Philadelphia, and also the New Scholar Award 2019 by the SHAC to analyze the pesticide registry in the archives of the Ministry of Agriculture at the General Archives of the Administration (AGA) in Madrid. Furthermore, I attended and gave conference presentations at the following meetings: the 12th International Conference on the History of Chemistry in Maastricht, the ICOHTEC Summer School and the ICOHTEC Symposium in Katowice, and the II National Congress/IV Conference of researchers in training, promoting interdisciplinarity (JIFFI) in Granada. Moreover, next year I will spend four months at the Science History Institute in Philadelphia with a fellowship awarded from the Beckman Center.

During my tenure as Student Ambassador my role will be to serve as liaison between the Society and graduate students, representing both their institution and neighboring ones. In addition, to contribute to the discussion on how the Society might better serve its graduate student members. I am really looking forward to do my best to help the student members of SHAC. Please do not hesitate to contact me with any questions or suggestions. You can reach me in my email (silprz92@gmail.com) and in my Twitter account (@silprz92).”

Sarah Lang

“Born in Germany in 1992, I have now spent almost ten years living in Graz (Austria) where I had moved for my university studies in Classics, Archaeology and History. After a semester abroad in Montpellier (France) in 2014, I was introduced to the Digital Humanities in 2016 at the Centre where I have been working ever since: Centre for Information Modelling / Zentrum für Informationsmodellierung (University of Graz). My academic interest in alchemy as well the Digital Humanities was not sparked completely accidentally but I admittedly had not moved to Graz knowing it had an excellent Digital Humanities centre, even less imagining one could seriously pursue alchemy as a research focus. Working in the Digital Humanities allows me to pursue my original calling as a Classicist working with Neo-Latin history of science texts while still making use of exciting cutting edge technologies. In my PhD thesis, I develop a system which uses machine reasoning on alchemical Decknamen. I am a member of SHAC since 2018 and have hugely enjoyed its great opportunities for students which is why I wanted to pass on this experience to new student members as a student ambassador.”



Alison McManus specializes in the 20th-century chemical sciences, especially as they intersect with secrecy practices. At present, she is a PhD candidate at Princeton University, where she is writing a dissertation on chemical weapons research in the Second World War. Tentatively titled, “The Other Secret Weapons,” her dissertation examines the development of nerve gases and defoliants by German and Anglo-American scientists, respectively. Her work highlights transnational exchanges of knowledge, tracing the movement of information via conventional publication channels, diplomatic missions, and espionage. Furthermore, her dissertation asks how wartime practices of concealment and disclosure impacted postwar priority disputes, intellectual property litigation, and knowledge of environmental toxicity, particularly near domestic chemical plants and Vietnamese lands targeted with defoliants.

INTRODUCING Alison McManus



SHAC
Student
Representative

A chemist-turned-historian of science, Alison graduated with degrees in chemistry and history from the University of Chicago. She developed an interest in environmental history while performing summer research at the University of Minnesota, where she evaluated carbon capture technologies. As a humanities scholar, she still investigates questions of environmental harm, particularly through the lens of toxicology. To that end, she is currently working with Princeton's Center for Digital Humanities on a project that traces changing attitudes toward environmental carcinogens among scientists and the American public.

As SHAC Student Representative, Alison will develop workshops that facilitate collaboration between the two halves of our acronym,

the modernists and the early modernists. A turn toward materials and laboratories has already helped to link alchemical and chemical histories, but secrecy may also serve as a useful bridge. Additionally, upcoming workshops – perhaps virtual, of course – will bring historians of chemistry into conversation with scholars of the environment, labor, biology, agriculture, and other chemistry-adjacent disciplines.

In sum, Alison is delighted to serve as Student Representative, and she looks forward to working with the new Student Ambassadors and the rest of the SHAC Council. Despite current challenges of distance and disease, she maintains cautious optimism for the history of chemistry.





**Free Access for SHAC
Members to special issue
of *Annals of Science*,
Atlantic Chemistry,
1600-1820**

Annals of Science recently published an 'Atlantic Chemistries 1600-1820' special issue, guest edited by John Christie and based on the Cain Conference on "Chemistry in the early Americas" held at the Chemical Heritage Foundation (now the Science History Institute) in 2017. Given the topic's interest to SHAC members, Taylor and Francis have made the issue accessible free of charge to members via the SHAC website. To access it please log in as usual as a member at www.ambix.org. Click on *Access Ambix* and when you arrive at the *Ambix* pages on the Taylor and Francis website, enter "Atlantic Chemistries" in the search box, having changed the criteria from "This Journal" to "Anywhere". The table of contents should then appear with a green tick next to each article indicating free access.

Introduction
Atlantic chemistries, 1600-1820
John R. R. Christie
Pages: 135-138

Articles
Alchemical and Paracelsian ideas in the *Arte de los Metales*
Mariana Sánchez Daza
Pages: 139-154

Chemistry and slavery in the Scottish Enlightenment
John Stewart
Pages: 155-168

'Enquiries on Plaister of Paris': a material history of early agrochemical
knowledge in the United States of America, 1785-1812
Christopher Halm
Pages: 169-188

'Revolutions, philosophical as well as civil':
French chemistry and American science in Samuel Latham Mitchell's *Medical
Repository*
Thomas Apel
Pages: 189-214

Failed utopias and practical chemistry: the Priestleys,
the Du Ponts, and the transmission of transatlantic science, 1770-1820
J. Marc Macdonald
Pages: 215-252

Special Issue
of *Ambix*
August 2020
Chemistry,
Consultants
and
Companies,
c. 1830–2000

This special issue of *Ambix* brings together five papers presented at the workshop, The Changing Role of Consultants in Industry, 1850–2000 held at the Maison Française, Oxford, 10-11 May 2019, and now revised in the light of discussions and referees' comments. These papers consider the role of chemists (broadly construed) as consultants in the chemical industry sector of the economy (also broadly construed to include food producers and pharmaceutical companies, among others). These case studies come mainly from Britain, but also from Norway, which provides a useful counterpoint to the British examples and illustrates how consulting for the chemical industry played an important part in nation as well as institution building.

Consultancy as a Career in Late Nineteenth and Twentieth Century Britain // Robin Mackie and Gerrylynn Roberts, Open University, UK.

This paper examines the continuing role of consultants within the profession of chemistry in the late nineteenth and twentieth centuries. Consultants were a prominent part of the profession in the late nineteenth century, but were overtaken in numerical terms by chemists working in academia, government and industry in the first half of the twentieth century. The paper demonstrates, however, that numbers later stabilised and then goes on to examine the characteristics of those chemists who worked as consultants as compared to the wider chemical community. It argues

that the survival of consultancy is best explained in terms of a number of differing models of consultancy work. Whilst for some chemists, consultancy was their main occupation, for others it was a phase in their careers or a secondary occupation alongside another post. The continuing value of consultancy work was related to its very versatility.

A Life of “Continuous and Honourable Usefulness”: Chemical Consulting and the Career of Robert Warington (1807-1867) // Anna Simmons, Department of Science and Technology Studies, UCL, UK.

Robert Warington (1807-1867) was a central figure in the mid-nineteenth century chemical community, notably through his role in the foundation of the Chemical Society of London in 1841. As demand

for chemical services grew, Warington constructed an ultimately lucrative career in chemistry in which consulting played a major part. His formative years laid ideal foundations for establishing himself as a consultant, whilst his appointment as chemical operator to the Society of Apothecaries' pharmaceutical trade provided the status and infrastructure to sustain this activity. Simmons explores the nature of the chemical services he performed for a range of customers through a survey of his experimental notes. At a time when professional boundaries in the subject were being delineated, this case study provides an example of how chemistry could be commercialised outside the academic environment and how consulting merged into a broader scientific career.

George E. Davis (1850–1907): Transition from Consultant Chemist to Consultant Chemical Engineer in a Period of Economic Pressure // Peter Reed, Independent Researcher, USA.

This article explores how George Davis's vision for chemical engineering was contingent upon both the national economic conditions of the period (1870–1900) and the critical transition to more economic production for chemical manufacture. Trade tariffs and international competition exacerbated an already challenging economic climate and stricter government regulation of pollution from chemical manufactories added further pressure. Sectors of the British chemical industry faced over-capacity and over-production, while most sectors were wasteful of

materials and energy and were over-manned. Davis's motivation was borne of his work as a chemist, as a consultant and as an inspector with the Alkali Inspectorate, and his search for knowledge and understanding was garnered from ongoing investigations in the field and in his Technical Laboratory, coupled with developments in equipment and machinery. Recognizing his own limited capability to overhaul the British chemical industry, Davis promoted his framework of chemical engineering to increase the cadre of chemical engineers.

Imperial Chemical Industries and Craig Jordan, "The First Tamoxifen Consultant", 1960s-1990s' // Viviane Quirke, Oxford Brookes University, UK.

This paper examines the relationship between Imperial Chemical Industries (ICI), the company which discovered tamoxifen,

and Dr Craig Jordan, who played a major part in its success as breast cancer drug, and who worked as a consultant for the company, but without ever being paid a consultancy fee. Instead, ICI funded junior staff working in his laboratory on topics of his choice. They later paid his expenses as an expert witness in patent-litigation cases, as a result of which the US became a major lucrative market for tamoxifen, and ICI's other anti-cancer drugs. This case study illustrates that, like consultants, drugs play an important part at the boundary between the academic and industrial spheres. However, even if it is blurred, the boundary remains. Owing to the secrecy that often surrounds industrial research, it may lead to a different understanding of what constitutes innovation, and to different narratives with regard to respective contributions.

The Chemistry Professor as Consultant at the Norwegian Institute of Technology, 1910–1930 // Annette Lykknes, NTNU-Norwegian University of Science and Technology, Norway.

Norway's first institution of higher technical education, the Norwegian Institute of Technology (NTH), was established in Trondheim in 1910, shortly after the country had gained its independence from Sweden. The establishment of NTH coincided with the beginning of large-scale industry in Norway, and expectations were high as to what the institute could contribute in terms of competence to establish new industries. The professors were expected to be not just teachers or academics, but also to be involved in projects with the industry. Consultancy was one way of exercising authority in relevant areas, and to acquire experience with industrial projects.

It is often stated that the professors at NTH were frequently used as industry consultants, but what this entailed is rarely discussed. In this paper, Lykknes investigates how two chemistry professors, appointed around 1910, formed their roles as consultants: Peder Farup, who experimented with the pigment titanium white for the successful company Elektrokemisk (Elkem) in the 1910s; and Sigval Schmidt-Nielsen, who became the country's authority on nutrition, and served both the state and the margarine industry as a consultant from World War I onwards and into the 1930s. Lykknes argues that both Farup and Schmidt-Nielsen created "hybrid careers", using the concept introduced by Eda Kranaki in 1992.

CALL FOR PAPERS: INTERNATIONAL CONFERENCE ON THE HISTORY OF CHEMISTRY 13 ICHC

18th–22nd of May 2021

Since 1991, when the first meeting was organized in Veszprem (Hungary), the Working Party on the History of Chemistry (WPHC) of the European Chemical Society (EuChemS) organizes an international conference on the history of chemistry, open to colleagues from all over the world. Thirty years later, the 13rd International Conference on History of Chemistry (13ICHC) will be held in Vilnius (Lithuania), from the 18th to the 22nd of May 2021. See: [\(https://www.ichc2021vilnius.chgf.vu.lt/\)](https://www.ichc2021vilnius.chgf.vu.lt/).

ICHC aims to bring together historically interested chemists, chemistry educators and historians of chemistry from all over Europe and beyond. For more information on the WP, see the website: <http://www.euchems.eu/divisions/history-of-chemistry-2/>.

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The conference will be hosted by Vilnius University (established in 1579), in the premises of the old city. The Department of Chemistry was established in 1797, still holding a position of one of the most popular departments at the University. The conference will include scientific sessions, key-note lectures, the WP business meeting, a poster session as well as social events such as excursions, receptions, and a conference dinner banquet. It is a pleasure to inform that the plenary lectures by

Marta Lourenço (Director of the National Museum of Natural History and Science of Lisbon), **Rimantas Vaitkus** (President of the Lithuanian Chemical Society), and **Rimvydas Baranauskas** (Prime Partners), are already approved, and other keynote speakers will be announced soon. Some useful information on the city, the excursion organised on 22 May 2021 to Kernavė and the Trakai History Museum, and accommodation can be found on the conference website, and the Facebook page.

The 13th ICHC in Vilnius will be organised in conjunction with the Belorussian Lithuanian-Polish Jędrzej Sniadecki Memorial Conference “Frontiers in Molecular Life Sciences” – JSMC2021. Jędrzej Sniadecki was the first head of Chemistry Department at Vilnius University (during 1797–1822). The conference JSMC2021 will continue to commemorate the 250th anniversary of Sniadecki’s birth.

Important Dates

Deadline for submitting proposals:
1 December 2020

Notification of acceptance: January 2021

Provisional program:
Early February 2021

Final program:
April 2021

Conference dates: 18th to the 22nd of May 2021

*Due to the worldwide sanitary crisis, it might be necessary to alter some of these dates at a later stage.

ICHC proposal guidelines:

The Steering Committee should include about 3–5 papers, encourages the submission of panel/session proposals, but also accepts the submission of stand-alone papers. The ICHC welcomes proposals on any topic on the history of chemistry, broadly understood, including historical works on molecular sciences, life sciences, industry, technology, and education. We will also welcome papers on the teaching of history of chemistry, in order to reach out to the wider community and to the younger generation.

The Steering Committee consists of Ernst Homburg, Maastricht University, and Ignacio Suay-Matallana, IILP-Universidad Miguel Hernández, (chairs of the Steering Committee), Brigitte Van Tiggelen, Science History Institute, (chair of the WPHC), and Rimantas Vaitkus, Vilnius University, (co-chair of the Local Organising Committee, president of the Lithuanian Chemical Society).

All proposals must be in English, the language of the conference. Submitted abstracts and session proposals (max. 200 words) will be subject to review by an international Advisory Committee. Sessions

and no more than one session can be proposed by the same organizer. There is a limit of one paper per presenter (including the papers listed inside a panel or a session). All paper proposals must use the templates provided on the conference web site.



Call For Papers: Adventures in Chemistry and Technology: *exploring the legacy of 19th century innovation in textiles, jewellery and materials*

This one-day symposium seeks paper proposals from a wide range of disciplines, including design historians, jewellery historians, economic and industrial historians, textile, fashion and jewellery practitioners, historians of science, museum and gallery curators, trade bodies and company archivists to discuss material histories of textiles and jewellery. Papers might address:

- historical innovation in aesthetic design and modern textile design
- fashion and jewellery-materials
- chemistry and making technologies of making
- stories of chemists and early material scientists contributing to the world of craft and design and of makers and artisan manufacturers becoming chemists and inventors from c. 1830-1940
- papers directly addressing electrification, new materials, material-textual-visual combinations of art and science and manufacturing, machines and patenting for economic, social or environmental benefit.

Individuals chosen will present short papers on research ideas/questions of 15 minutes. Abstracts of no more than 500-words are requested.

Please submit abstracts to Dr Jo Horton and/or Subject Leader-Textiles and Contour Fashion Ms Buddy Penfold.

Email: jhorton01@dmu.ac.uk Email: bpenfold@dmu.ac.uk

Membership

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: cacobbold@gmail.com.

Contribute to *Chemical Intelligence*

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

- Publications
- Upcoming Conferences or Meetings
- 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, Dr. Karoliina Pulkkinen: kjpu@kth.se