

# Historical Group

# NEWSLETTER and SUMMARY OF PAPERS

Chairman: Dr John A Hudson Graythwaite, Loweswater, Cockermouth, Cumbri Dr Noel G Coley (Open University) Dr Christopher J Cooksey (Watford,

Finally, I would like to thank everyone who has sent material for this newsletter. I also want to

The forty-second Annual General Meeting of the Group will be held at the Royal Society of Chemistry, Burlington House, at 11 am on Wednesday 18 October 2017.

Agenda

- 1. Apologies for Absence.
- 2. Minutes of AGM at Burlington House, 19 October 2016.
- 3. Matters arising from the Minutes.
- 4. Reports:

Chairman's Report.

Secretary's Report.

Treasurer's Report.

- 5. Future Meetings.
- 6. Election of Officers and other Members of the Committee.
- 7. Any Other Business.
- 8. Date, time and place of next meeting.

Minutes of the Forty-First Annual General Meeting of the Royal Society of Chemistry Historical Group Held at Burlington House, London, at 12.20 pm on Wednesday 19 October 2016.

1. Apologies for absence: Received from Professor Jack Betteridge, Dr Gerry Moss and Professor Bill Brock.

2. Minutes of AGM at the Royal Institution, Tuesday 13 October 2015. Having been published in the Newsletter, these were accepted as a true record without amendment.

3. Matters arising from the minutes:

7. Date of next AGM: 18 October 2017, as part of our one-day symposium at Burlington House

## Accounts for RSC Historical Group for 2016

Receipts	£	£
RSC Deposit Account	35.76	
Annual Grant	3 745.00	
Donations	500.00	
Meetings and Conferences	180.00	
Total Income	4460.76	
Payments		
Meetings and Conferences		3 987.75
Committee Meetings		628.95
Committee Travel Expenses		169.50
Stationery and Postage		599.06
Committee Teas and Coffee		43.20
Bank Charges		2.67
Total Expenditure		5 431.13
Surplus (Deficit) for the year		(970.37)
Summary		
Balance at 31st December 2015		12 023.75
Surplus (Deficit) for 2016		(970.37)
Balance at 31 <sup>st</sup> December 2016		11 053.38
Cash at Bank		
Current (Bankline)		1 997.33
Current (other)		4 304.03
RSC deposit		4 752.02
Balance as at 31 <sup>st</sup> December 2	2016	11 053.38

RSC NEWS

### Accessing and Using the RSC's Digital Archive

The digitised material in the collection, which is of value to many chemists in addition to those with an interest in the history of chemistry, can be accessed and saved by RSC members free of charge. You will need your member

#### Proposed Webinars

In collaboration with the Historical Group and the RSC Library, the Chemical Information and Computer applications Group (CICAG) is intending to run some webinars which will be open to all RSC members, during which users of the Digital Archive will be able to learn more about the collection, and compare their experiences. More information will be made available once details have been finalised. Contact Helen Cooke, Chair of CICAG (helen.cooke100@gmail.com).

John Hudson

Many thanks to Helen Cooke and David Allen for help in preparing these guidance notes.

New RSCHG Wheeler Lecture Published Online

### MEMBERS' PUBLICATIONS

If you would like to contribute anything to this section, please send details of your publications to the editor. Anything from the title details to a fuller summary is most welcome.

C.J. Cooksey, "Quirks of dye nomenclature. 7. Gentian violet and other violets", 2017. http://dx.doi.org/10.1080/10520295.2017.1286038

The name gentian appeared about 1880 and is thought to have been introduced by the German pharmacist Georg Grübler. Immediately following its discovery in 1861, by Charles Gustave Lauth (1836–1913), this violet dye was known as

Jessica L. Epstein, "The Legacy of Tetraethyllead", 38-43.

Tom Scheiding, "More Than Meets the Eye: Chemical Foundation Investments in the Journal of Chemical Education", 44-55.

Jeffrey Kovac, "Ethics of Chemical Weapons Research", 56-63.

Seth C. Rasmussen, "On the Origin of 'Synthetic Metals': Herbert McCoy, Alfred Ubbelohde, and the Development of Metals from Nonmetallic Elements", 64-73.

Comment and Response: Rediscovering Pyrotartaric Acid, 74.

Contents of the Bulletin for the History of Chemistry, 2017, vol. 42, No. 1

Ursula Klein, "Chemists for the Common Good", 1-6.



Figure 1: Students and their teacher crafting a Wikipedia article

The project is exciting for teachers, students and researchers alike, who are fascinated by their research and shocked by the gender gap. To date, two hundred students aged twelve to fifteen have learned how to edit and made meaningful improvements to the online encyclopaedia in just the few hours allotted to the sessions. They have created over twenty biographies for women in chemistry on Wikipedia and improved even more. Pages either in the pipeline or already created and improved include: Frances Micklethwait, who was awarded an MBE for her research during the First World War; magnetochemist Cecilie Mary French; May Sybil Leslie (pictured), whose research on dyes led to her RSC Fellowship; and Reiko Kuroda, known for her research on chirality. As with any pages on Wikipedia, these are works in progress – if you'd like to contribute more information on these or other women scientists to Wikipedia, dive in!



professions. Bristol's Political Union was set up in 1831 (in Bristol in 1831 only around six p

American Chemical Society's weekly magazine. The headline was "Nabbing nitrogen from the air to make fertilizer on the farm", but the very first sentence began "British chemist Humphry Davy ...".

Davy made the newspapers such as

in his own time [9], and to this day is "good copy".

References

1. Fritz Haber, "The synthesis of ammonia from its elements", Nobel Lecture, 2 June 1920,

http://www.nobelprize.org/nobel\_prizes/chemistry/laureates/1918/haber-lecture.pdf See especially pages 327-328. This award was unpopular in former Allied countries. Haber had personally supervised the first use of poison gas (chlorine) on the Western Front in the First World War. Nitric acid made from ammonia is used also for manufacture of explosives.

2. Humphry Davy, 1807, 97, 1-56. This reports Davy's Bakerian Lecture "On some chemical agencies of electricity" of 20 November 1806.

3. Fr. Fichter and Richard Suter, 1922, 5, 246-255.

4. Robert Crabtree was an undergraduate at Oxford and did his DPhil at Sussex, then moved to the CNRS in France and to Yale. He was recently elected to the National Academy of Sciences.

5. Michael Jewess and Robert H. Crabtree,

, 2016, 4, 5855-5858.

6. Robert Crabtree, , February 2017, 70.

7. James Gilray (1756-1815), "Scientific Researches! – New discoveries in pneumaticks! – or – an Experimental lecture on the powers of air" (colour print, Hannah Humphrey, 1802). To view the print, with identification of the individuals and scientific equipment shown in the print, go to

http://www.britishmuseum.org/research/collection\_online/collection\_object\_details.aspx?objectId=1478966&partId=1&people=6329&peoA=6329-1-9&page=1.

8. Stephen K. Ritter,

, 1 May 2017, 95 (18), 22-23.

9. Harriet Lloyd, "Davy's Lectures in the Press", SHAC spring meeting, Cambridge, 15 June 2015.

Michael Jewess Harwell, Oxfordshire michaeljewess@researchinip.com

# The Historic Practice of Deliberate Poisoning: With Reference to Dr Alphonse Normandy's Testimony to the Parliamentary Select Committee in 1855

As reported in the winter 2017 in September 2016 a blue plaque was unveiled at 91 Judd Street, Bloomsbury, London to commemorate the achievements of Dr Alphonse Normandy (1809-1864), especially as a pioneer in desalination processes [1]. He was also a highly respected analytical chemist and at the forefront of exposing the falsification of food and drink. In 1855 Normandy was among the "most eminent chemists and medical men of the day" who gave testimony to a Parliamentary Select Committee, chaired by the MP for Birmingham William Scholefield [2]. The committee was appointed to inquire into the Adulteration of Food, Drink and Drugs, an issue of growing concern at the time. Including Normandy there were seventeen witnesses: Arthur Hill Hassall, M.D., Robert Warrington (chemist), John Simon (Medical Officer of Health for the City of London), Sir John Gordon (Mayor of Cork), John Mitchell (chemist), Robert Dundas Thompson (Professor of Chemistry at St Thomas Hospital), Thomas Blackwell (wholesale pickle and sauce manufacturer – Crosse & Blackwell), Theophilus Redwood (Professor of Chemistry and Pharmacy, at the Pharmaceutical Society), Thomas Herring (wholesale chemist and druggist), Peter L. Simmonds (author and editor of ), John Postgate (Birmingham surgeon), Charles H. Burton (Treasury), George Phillips (Inland Revenue), Richard

Archer Wallington (solicitor and Chairman of the Learnington Board of Health), Henry Letheby MD (analytical chemist) and Maurice Scanlan (apothecary, Dublin).

The published work of Alphonse Normandy

Normandy's name first appeared in print in 1848, as translator from German to English of Heinrich Rose's [3]. He was familiar with both languages, albeit a native French speaker,

having been born into the Le Mire family of Rouen [4]. Normandy was an adopted surname, perhaps a useful reference to his birthplace's significance that would resonate with British clients. Normandy's next work was [5] and in the same year (1849) he wrote

[6]. In addition to providing analytical services, Normandy designed a "do it yourself kit" containing necessary glassware and reagents, all in a

coffee, milk, cocoa, gin and a host of other substances" [8]. The described "the various falsifications or impurities which naturally, accidentally or intentionally, may contaminate the various articles met with in commerce, and to enable the manufacturer, the miner, the trader and the public generally, to detect the nature and

Cocculus indicus [21] was a widely used contaminant, "to create a feeling of intoxication without the previous excitement which alcohol produces...it knocks you down so to speak, without previous exhilaration". Normandy explains to the Committee how he had obtained evidence from two of the largest druggists in London who admitted that they regularly sold cocculus indicus, foots sugar (for stimulus and sweetening) liquor ammonia (for colouring) and extract of gentian (cheaper than hops) for th

2. The other Committee members were: Mr. C. Villiers, Lord Claud Hamilton, Viscount Goderich, Mr. Knight, Mr. Sheridan, Mr. Peacocke, Viscount Ebrington, Mr. Alderman Cubitt, Mr. Kinnaird, Mr. Otway, Mr. Swift, Mr. Gregson, Mr. Wise and Mr. Moffatt. 3. A. Normandy, , by Heinrich Rose with Notes & Editions (London: William Tegg & Co., 1848). , , ( & , ). . . (London: George Knight & Sons, 1849). 6. A. Normandy, 7. A. Normandy, (London: George Knight & Co, 1850). , 1855, p. 8 56 (hereafter ). 9. A. Normandy, , 1850, preface page vi. . , , . . . 12. Matthew Ramsey, (Cambridge: CUP, 1988). 13. Le Mire family birth and marriage certificates (see note 4). 14. Gavin Daly, (Aldershot: Ashgate, 2001). 15. Dr Normandy (obituary), , 21 May 1864, 598-99. , 1845, p. 123. 16. Théodore Licquet, (1831); 17. 18. A. Normandy, 1850, preface, p. vii. 19. Reviews, including that from , were published in A. Normandy, (London: George Knight & Co, 1853). , 1855. Normandy gave evidence on Friday 13 July (pp. 56-20.

62) and continued on Friday 20 July (pp. 63-85). He gave further evidence on 27 July in response to comments made by Theophilus Redwood (in relation to samples of bicarbonate of soda pp. 163-4) a

### ESSAY REVIEW

Viscose textile products, and cellophane, served cultural, social and political roles far greater than their natures might suggest. Viscose rayon was at once high fashion in New York, and low fashion in Paris. It became well suited to the autarky programmes of fascist Italy and National Socialist Germany. But, increasingly, the lives of countless factory workers were ruined.

Thanks to

Balazs Hargittai and Istvan Hargittai,

(Singapore: World Scientific, 2016). Pp. 255. ISBN 978-981-4723-81-7. £56 (hardback), £25 (paperback)

The five "Martians" grew up in Hungary, and were educated in Budapest schools and then Hungarian or German universities. Because they were Jewish they emigrated to the USA in the thirties, became American citizens and made significant contributions to science. "Martians" derives from a jokey suggestion that they came from Mars, disguising this by speaking a strange language (Hungarian).

An introduction precedes five chapters, each entitled for example "Edward Teller's Wisdom". The chapters have some twelve subsections, varying for each subject but all containing biographical and "human traits" entries. Other sections (for example politics, religion etc.) are quotations from the subjects themselves. Two have entries on "Research" (Kármán, Szilard) but these are only the subjects' own philosophical reflections on this, so it is difficult to establish from the book what research they actually did – is a far better source.

John von Neumann (1903-1967) studied chemistry and chemical engineering, becoming a mathematician and, in the US, a computer pioneer. His is the only chapter with a "Humour" section, but this won't have the reader rolling in the aisles. Theodore von Kármán (1881-1963) specialised in aerodynamics and aviation science, greatly assisting the US Air Force in WW2. Leo Szilard (1898-1964), an engineering and physical chemistry graduate, worked in Britain from 1933 on nuclear chain reactions and critical masses, emigrating to America in 1938. In 1939 he organised Einstein's famous letter to Roosevelt warning of Germany's likely development of an atomic bomb; at the University of Chicago he worked on the world's first nuclear reactors.

Eugene Paul Wigner (1902-1995) started as a chemical engineer and became the only Nobel laureate of the group, sharing the 1963 Physics Prize with Mayer and Jensen, for "his contributions to the theory of the atomic nucleus

Bristol, in particular Southey and Coleridge. Together with Coleridge he began his political campaigning in earnest, writing tracts and giving public addresses.

With the financial help of influential friends, Beddoes was able, in 1799, to open in Dowry Square, in Hotwells in Bristol, a research and clinical centre for the use of gases in medical treatment, the

(MPI). On the recommendation of an old friend from Oxford days, Davis Giddy (by then a highly influential, Cornish politician and engineer), Beddoes appointed a precocious, but brilliant young man from Penzance, Humphry Davy, as the laboratory superintendent of the MPI. The MPI blossomed, treating large numbers of patients, whilst Davy began his pioneering research into nitrous oxide (laughing gas) and electrolysis. But after Davy left for the Royal Institution in London in 1801, the stock of the MPI started to decrease. In 1807, after Beddoes himself became ill, the Institution closed; he died the following year.

An indication of Beddoes' fame is the fact that there are four wall plaques honouring his memory in Bristol: at his

However, as the book goes on to show, this era of girls' chemistry came to an end in the 1920s. A major reason was the malign influence of the Hadow Report of 1923. This report claimed, without evidence, that girls' intellects were better suited to the memorization work needed in biology, and that chemistry was really a boys' subject. Although this sexist nonsense never quite extinguished the flame of chemistry in girls' education, the light certainly grew dimmer as a result. As the book concludes, the "... exciting times documented in previous chapters were soon forgotten, even from the institutional memory of the schools themselves". The Rayner-Canhams have done a marvellous job in putting this right and showing just how important chemistry was in these schools in this period. It is a fascinating book, and I recommend it highly to anyone interested in the overlap of history, chemistry and education.

John Nicholson

Susan J. Smith,

barometer. Later he became much interested in mineralogy: wollastonite (CaSiO<sub>3</sub>) was so named in 1818 "in honour of one of the most respected chemists of this century".

This inexpensive book has a small font and, surprisingly, the index is not as detailed as it should be. Nevertheless, it is a magisterial volume, and will be the standard work on him for many years. Despite Wollaston's many interests Usselman manages to keep a roughly chronological and clear trajectory in the book which greatly helps the reader.

Bill Griffith Imperial College London

### MEETING AND CONFERENCE REPORTS

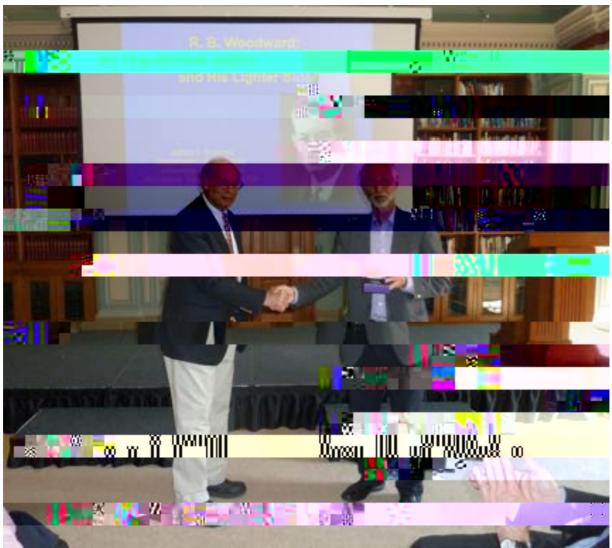
### The Centenary of Robert Burns Woodward (1917-1979)

Royal Society of Chemistry, Burlington House, London Wednesday 10 May 2017

This meeting was held to commemorate (slightly belatedly) the centenary of the birth of the famous synthetic organic chemist Robert Burns Woodward in Boston on 10 April 1917. Around forty-five people were present for the meeting. Talks were given by Peter Morris, Pierre Laszlo and two former postdocs of Woodward, Michael Whiting (now ninety-one) and Stanley Roberts. In the second half of the meeting the Wheeler Award was presented to Jeffrey I. Seeman of the University of Richmond, Virginia. Jeff Seeman is best known for his editing of the series of autobiographies for the American Chemical Society ("Profiles, Pathways and Dreams") and his vindication of the quinine synthesis carried out by Woodward and William von Eggers Doering in 1944 against the criticism that the final step of the synthesis (left undone by Woodward and Doering) carried out by Paul Rabe and Karl Kindler in 1918 could not work. Jeff was also recently awarded the HIST Award of the American Chemical Society. His Wheeler Lecture entitled "Woodward's Unpublished Letters and His Lighter Side" will be published as a RSCHG Occasional Paper in due course. Jeff Seeman then gave a lecture on "Woodward, Corey, Hoffmann and the Rashomon Effect" which unusually included a short playlet reproducing the crucial

Was Robert Burns Woodward a Great Chemist?

What makes a chemist great? The acceptance that X is a great chemist is very much a social process: he or she is considered to be a great chemist by their peers and later by historians who are very much influenced by the views of contemporary chemists. One cannot therefore have an unknown great chemist. It might be said that many chemists (but not all) make advances in chemistry but only great chemists make major ones. I think the key thing here is the peer recognition of the advance or advances made by the chemist, rather than recognition of the chemist as a person. I would also make the point that the further back in time we go, the easier it is to tell who was a great



Presentation of the Wheeler Award

Woodward, Hoffmann and Corey and the Rashomon Effect

### **RSC NATIONAL CHEMICAL LANDMARKS**

### New Dalton Landmark Plaque Now Installed

The previous contained an account of the Dalton Anniversary celebrations which took place in Manchester on 26 October 2016. On that occasion, the plaque that had been removed from St Peter's Square was presented to the Manchester Literary and Philosophical Society to be on permanent display in their offices. A new plaque for public display had been cast, and this was presented to a representative of Holt Breweries, a company which was founded in Dalton's lifetime. The new plaque has now been erected on one of Holt's public houses, the

, appropriately situated in John Dalton Street, which in turn is very close to St Peter's Square. The unveiling ceremony took place on 26 March, and was performed by David Garner, past President of the RSC. Manchester has been home to many important figures in the history of science, but in the eyes of many Dalton was the most significant. Thanks are due to Historical Group member Diana Leitch that the 250<sup>th</sup> anniversary of Dalton's birth was marked last year, and that a permanent memorial to him is once again on view to all in a prominent location in the centre of Manchester.

John Hudson