

THE SUSS-EX CLUB

NEWSLETTER No. 40 May 2017

This issue contains

Forthcoming events,
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Forthcoming Events

Wednesday 24th May: David Streeter Nature Walk

As advertised in our February Newsletter, David Streeter will lead a walk to the Castle Hill National Nature Reserve. Natural England's leaflet on the reserve is at the following web address:

http://webarchive.nationalarchives.gov.uk/20140711133551/http://www.naturalengland.org.uk/Images/castle-hill-nnr_tcm6-2424.pdf.

David comments "There should be some nice plants in flower if anyone needs encouragement to bring their camera. I just hope that we manage to catch the Early Spider Orchids—the season is a bit early so it's just possible that they may beat us to it".

The walk is free but numbers have to be limited to ensure a group of manageable size, so please apply to Charles Goldie (organiser) for places: e-mail C.M.Goldie@sussex.ac.uk, landline 01273 555025, mobile 07876 565395.

The group will meet at **2pm** at the walkers' carpark east of Falmer Road, B2123, just above Woodingdean, grid reference TQ356064; nearest postcode BN2 6NT. Brighton buses 22 and 52 take one to the corner of Falmer Road and Bexhill Road nearby. Walking up from Kingston and meeting the main party where Juggs Road touches the north point of the reserve would also be possible.

The walk will be on bridle paths and close-cropped turf. The terrain is hilly, and the walk back does involve quite a steep climb out of the reserve, but that will be at the end of the walk and you can go at your own pace. We'll cover at most 3 miles, probably less. If it has rained there may be a little chalky mud but there will never be much as the site is high and well drained.

Other possible future events include visits to the British Airways i360, with a talk by Fred Gray, and a fish and chip supper, the Jane Austen exhibition at the Royal Pavilion, with a talk by Alexandra Loske, and tea, Further information about these will be circulated later

Suss-Ex members may also be interested in events organised by the University and advertised on its website.

Recent Suss-Ex Events

22 March Strokes and their prevention

This meeting raised a lot of interest - it was necessary to change our booking to a larger room to accommodate around 40 people. There were lectures by Professor Rajkumar, chair of geriatric care and stroke medicine, and Dr Philip Thompson, stroke consultant, with a break for tea.

A subsequent steering group meeting agreed that we should plan to organise another occasion of the same kind next year. If you have any suggestions of specific topics or speakers, please let Jennifer Platt know.

Jennifer Platt

11 April Visit to Veolia's Materials Recycling Facility Hollingdean Brighton

After an introductory video summarising the company's activities in Brighton & Hove, and East Sussex, there was a lively and very informative discussion about the problems of handling waste. Our party of 14 was then taken to the first of the site's two enormous sheds, and saw how 'black sack rubbish' is compacted for onward despatch to Veolia's 'Energy Recovery Facility' (more popularly known as the incinerator) at Newhaven. Then in the other shed we followed our guide around a series of elevated walkways, pausing from time to time to learn about the variety of mechanised sorting operations applied to the contents of the conveyor belt which runs from one end of the shed to the other. These contents should all be recyclable – paper, cardboard, some plastic, cans whether steel or aluminium, etc – and when sorted and compacted are despatched to specialist companies for re-use. It was fascinating to see the variety of techniques used to separate the variety of materials – including at several points human activity both to prepare input for, and to check output from, the mechanised routines. A short debriefing back in the reception area concluded the visit.

Adrian Peasgood

Research Contributions by Retired Staff 2016

Retired members of staff are still members of the academic community and continue their intellectual involvement, expressed in academic journal articles, national and international conferences, and in the other responsibilities. If you did not send us details of your record, we may be able to find the space for it in the next Newsletter.

George Craig

G. Craig, M. D. Fehsenfeld, D. Gunn, L. M. Overbeck Eds, *The Letters of Samuel Beckett, Vol 4 1966-1989*, Cambridge University Press, 2016, 837pp. George has been working on this project as the translator and one of the editors for over 20 years.

Charles Goldie

C. M. Goldie, A. Mijatovic (ed.), *Probability, Analysis and Number Theory: Papers in Honour of N. H. Bingham. Advances in Applied Probability*, Special Volume **48A**. Applied Probability Trust, Sheffield, 2016. ISBN978-0-902016-10-1.

Jim Hanson

The genetic and molecular basis of botrydial biosynthesis. Connecting cytochrome P450-encoding genes to biosynthetic intermediates, J.Moraga, B.Dalmais, I.Izquierdo-Bueno, J.R.Hanson, M.Viaud and I.G.Collado, *ACS Chemical Biology*, 2016, **11**, 2838-2846.

Chemically induced cryptic sesquiterpenoid and expression of sesquiterpene cyclases in *Botrytis cinerea* revealed new sporogenic (+)-4-epierimophil-9-en-11-ols, C.Pinedo, J.Moraga, J.Barva, J.R.Hanson, C.Garrido and I.G.Collado, *ACS Chemical Biology*, 2016, **11**, 1391-1400.

Efficient *O*-acylation of alcohols and phenols using Cp₂TiCl as a reaction promoter, M.J.Duran-Pena, J.M.Botubol-Ares, J.R.Hanson, R.Hernandez-Galan and I.G.Collado, *European Journal of Organic Chemistry*, 2016, 3584-3591.

Diterpenoids of Terrestrial Origin (2015), J.R.Hanson, *Natural Product Reports*, 2016, **33**, 1227-1238.

From Caa-ehe to a commercial sweetener, the diterpenoid glycosides of *Stevia rebaudiana*, J.R.Hanson, *Science Progress*, 2016, **99**, 413-419.

Rosemary, the beneficial chemistry of a garden herb, J.R.Hanson, *Science Progress*, 2016, **99**, 83-91.

From 'mad honey' to hypotensive agents: the grayanoid diterpenes, J.R.Hanson, *Science Progress*, 2016, **99**, 327-334.

Some recent reports on the flavanoids, J.R.Hanson, *Journal of Chemical Research*, 2016, **40**, 62.

Michael J. Hutchings

Laanisto, L., Sammul, M., Kull, T., Macek, P. & Hutchings, M. J. (2015). Trait-based analysis of decline in plant species ranges during the 20th century: a regional comparison between the UK and Estonia. *Global Change Biology*, **21**, 2726-2738. doi: [10.1111/gcb.12887](https://doi.org/10.1111/gcb.12887)

Jacquemyn, H. & Hutchings, M. J. (2015). Biological Flora of the British Isles: *Ophrys sphegodes*. *Journal of Ecology*, **103**, 1680–1696. doi: [10.1111/1365-2745.12469](https://doi.org/10.1111/1365-2745.12469)

Laanisto, L. & Hutchings, M. J. (2015). Comment on: Worldwide evidence of a unimodal relationship between productivity and plant species richness. *Science*, **350**, 1177-b. doi: [10.1126/science.aad4836](https://doi.org/10.1126/science.aad4836)

Jeff Leigh and John Nixon

G. Jeffrey Leigh and John F. Nixon, *Biographical Memoirs of Fellows of the Royal Society*, 2016, **62**, 277-298. Michael Franz Lappert 31st December 1928 - 28th March 2014.

Robin Milner-Gulland

R Milner-Gulland, J.F.Potter, P.Tudor-Craig, 'West Chiltington Church: Structure and Wall Paintings', in *Sussex Archaeological Collections Vol 154* (2016).

Editor of a 'South Downs Series' of books for the Sussex Archaeological Society since 2012. Two were published in 2016: Annabelle Hughes (D Phil Sussex) 'Traditional Homes of the South Downs National Park' (Sussex Archaeological Society, Lewes), and David Parsons & Robin Milner-Gulland: 'Churches & Chapels of the SDNP'.

R.Milner-Gulland & O.Soboleva (D Phil Sussex) 'Stikhotvorenje Kharmisa "Na smert' Kazimira Malevicha" ', in *Voprosy Literatry*, 4, 2016 [Kharms's Poem 'On the Death of Kazimir Malevich', in 'Questions of Literature', July-Aug 2016].

Jennifer Platt

Articles: 'Recent ASA presidents and 'top' journals: observed publication patterns, alleged cartels and varying careers', *The American Sociologist* 47,4, 459-485.

'Where is the boundary between sociology and not-sociology?,' *Serendipities*, 2016.

Refereeing for *Acta Sociologica*, *American Sociological Review*, *The American Sociologist*.

Paper given: ISA Research Committee on the History of Sociology, Warsaw: 'Structure and cohort in British sociology: making the best of an accidental historical source.'

Michael Ramsey

Ramsey, M. H. (2016) Appropriate Sampling for Optimised Measurement (ASOM), rather than the Theory of Sampling (TOS) Approach, to Ensure Suitable Measurement Quality: A Refutation of Esbensen and Wagner (2014). *Geostandards and Geoanalytical Research*, 40, 4, 571-581, doi: 10.1111/ggr.12121

Conference papers and invited talks: Ramsey M.H. (2016). Heterogeneity requirements of reference materials for validation of analytical methods using macro- and micro-beam techniques. International Association of Geoanalysts' Certification and Reference Material Committee.

<http://www.geoanalyst.org/index.php/reference-materials-overview>

Chair of Subcommittee on Sampling Uncertainty, of the Analytical Methods Committee of the Royal Society of Chemistry

<http://www.rsc.org/Membership/Networking/InterestGroups/Analytical/AMC/SUSQSC.asp>

Robert Smith

Book review Smith, R. C., Review of "Introduction to Stellar Structure", by W. J. Maciel (Springer, 2016). *The Observatory Magazine*, **136** 300--301 2016.

Douglas Young

A. R. Battersby and D. W. Young, *Biographical Memoirs of Fellows of the Royal Society*, 2016, **62**, 19-57, Sir John Warcup Cornforth 7 September 1917 - 8 December 2013

Obituaries

J Donald (Don) Thomas 8 June 1928 to 1 March 2017

Don, a proud Welshman, was born at Llangeitho, a village near the Welsh market town of Tregaron, and attended Tregaron Grammar School. By 1954, Don had gained his BSc in zoology and also his PhD from the University of Wales at Aberystwyth, where he met his future wife, Joy Robinson. They were married during the following year.

From 1953 to 1965 Don worked and taught at the University of Ghana at Accra, mostly on his favourite subject of aquatic ecology and parasitology. In 1965 he was appointed as a Lecturer, reportedly, without the need for an interview, at the University of Sussex by Professor John Maynard

Smith FRS. Don was among the first cohort of staff appointed to start the School of Biological Sciences. Don was promoted to Reader in 1969 and awarded the status of Doctor of Science in 1989 by the University of Aberystwyth.

Don's principal subject remained aquatic ecology, but his research focussed on methods of controlling schistosomiasis, also known as bilharzia. This tropical disease, which uses humans and aquatic snails as alternate hosts, affected about 252 million people in 2015, a large proportion of these being children who play in infected water, and kills up to 200,000 people per year. Don always took the view that the control of this disease required a multilateral approach and accordingly championed methods of water-body management and aquatic snail control.

Don always headed-up a thriving group of researchers at Sussex, including many post-graduates and post-doctoral researchers; he also supervised many undergraduate final year research project students. Don also hosted several visiting professors, particularly from Africa and America, who had a common interest in fresh-water parasitology. During his 28 years at Sussex, Don was successful in winning research grants from a number of awarding bodies, notably the World Health Organisation (WHO), and consequentially generated DPhil graduates who went on to work in this subject area around the world. Countries that benefitted from these programmes include Brazil and other South American states, Ghana, Sri Lanka, Nigeria, Senegal, Sudan, Iraq, Iran and Egypt, Canada and of course the United Kingdom.

Every year, Don organised and ran an intensive course on freshwater biology, and students would sample from multiple sites along the length of the Sussex River Ouse and then analyse these samples using a wide range of techniques, both chemical and biological. Don's research group cultured about 50 aquaria containing aquatic snails, both tropical and temperate. Most of Don's research was on the tropical aquatic snail *Biomphalaria glabrata*, which lives in fresh water across tropical South America. Don also worked on *Bulinus (Physopsis) globosus* from Africa. Both of these species are primary hosts of schistosomes and infect water with schistosomiasis-causing worms. The outcome was the generation of knowledge of these and other species in rigorous minute detail, including how they are affected by a wide range of organic chemicals, particularly amino and short-chain carboxylic acids. For example, Don's research determined whether these chemicals might attract snails, cause them to feed and sometimes, to be repelled. A major discovery was that propionic acid was a potent attractor of snails and could attract them to a small module containing a molluscicide; this would allow disease-hosting snails to be selectively removed from an otherwise healthy ecosystem. This research is recorded in dozens of well-cited publications, some describing detailed studies and others reviewing the wider implications for the control of disease in natural water bodies.

Throughout his working life, Don confessed to being a humanist and had a reputation for being a gentleman, always willing to help people where he could. Indeed, one of his greatest services to the planet was providing opportunities for people from the UK and around the world to make academic progress. Many of these scientists went on to provide similar services to others where they ended up working. In that way, Don Thomas was an inspirer of progress in the science of freshwater ecology which preoccupied his life.

Don passed away on 1st March 2017, and will be missed by those who knew him, particularly his wife Joy, and children Fiona, Julian, Ian and Efua.

Martyn Stenning

David Smith writes: Don was influential in setting up the University's Environmental Science Programme in the School of Molecular Sciences (MOLS) and the School of Biological Sciences (BIOLS). For about 20 years this attracted highly qualified students who went on to fill responsible positions in industry and public service. The programme drew on existing modules in chemistry and biology but a number of courses were designed that crossed interdisciplinary boundaries. Don's contributions were mainly in the area of chemical ecology (including field courses) at core and specialist undergraduate levels. He also co-supervised a number of graduate students in this area.

There is a link to the obituary, published in the *Guardian* on 8 April 2017, on the Suss-Ex website.

Barbara Shields 1922-2017

Members who recall the Suss-Ex 2012 exhibition of sketches of the first building works at Falmer by Barbara Shields will be sad to hear that she died peacefully on 7th February 2017, aged 94.

As the widow of the University's first Registrar, Ted Shields, Barbara was likely to have been the last person alive with a connection to the University before it opened in 1961. The *Bulletin* of 20th April 2012 has an account, online at <http://www.sussex.ac.uk/internal/bulletin/staff/2011/200412/suss-exsketches>, of our exhibition.

Barbara was active as an artist until her last years; her painting *Still Life, Rose and Lemons* was bought by the University and hangs in the Office of the School of English, Arts B133. It features in the online catalogue of art works in public collections: see <https://artuk.org/discover/artworks/still-life-rose-and-lemons-73016#>.

The University's *Staff Bulletin* of 17th February 2017 has an obituary of Barbara, online at <http://www.sussex.ac.uk/staff/newsandevents/?id=39107>.

Charles Goldie