



Quaternary Research Association

Minutes of the 51st Annual General Meeting of the Quaternary Research Association held at Royal Holloway, University of London on 6th January 2016 at 16:00.

The President, Professor Pete Coxon, chaired the meeting, which was attended by 63 members of the Association:

Neil Adams, Ken Addison, Philippa Ascough, Keith Barber, Mark Bateman, Clare Boston, Anna Bourne, Eleanor Brown, Ian Candy, Alice Carter-Champion, Chris Clark, Pete Coxon (Chair), Laura Crossley, Bethan Davies, Siwan Davies, Geoff Duller, Derek Fabel, Trevor Faulkner, Chris Francis, Mick Frogley (minutes), Geoff Garbett, Terence Hackwill, Mark Hardiman, Kristy Holder, Jonathan Holmes, David Horne, Anna Hughes, Gwydion Jones, Pete Langdon, James Lea, Melanie Leng, Neil Loader, John Lowe, Sven Lukas, Anson Mackay, Alison Macleod, Anna March, Barbara Mauz, Roseanna Mayfield, Erin McClymont, Des McDougall, Jon Merritt, Adrian Palmer, Kirsty Penkman, Simon Price, Sean Pyne-O'Donnell, Jim Rose, Ann Rowan, Danielle Schreve, James Scourse, Barbara Silva, Anna Sinnitt, Kadri Sohar, Anthony Spencer, Richard Staff, Abi Stone, Alayne Street-Perrot, David Sugden, Jenna Sutherland, Rob Westaway, Tom White, Amanda Williams, Eric Wolff.

1. Welcome and apologies for absence

The President welcomed members to the meeting. Apologies were received from Tom Bradwell, David Bridgland, Andrew Finlayson, John Gordon, Jonathan Lee and Emma Pearson.

2. Minutes of the 50th Annual General Meeting

These were accepted as a correct record of the meeting.

3. Matters arising from the minutes

There were no matters arising from the minutes.

4. President's report

a. Previous ADM. The President began his report by thanking the organisers of the 2015 ADM (held at *Our Dynamic Earth* in Edinburgh) for putting together such a professional and entirely positive experience for all attendees.

b. Honours. On behalf of the Association, the President had attended the Geological Society of London (GSL) Presidents' Day in June, to which all Specialist Group chairs had been invited. John Catt had been presented with a Distinguished Service Award and Colin Ballantyne had received the Lyell Medal.

c. Conservation issues. On the detailed advice of the Conservation Officer, the President had responded in writing to two issues regarding critical Quaternary sites, namely to (i) oppose the de-listing of Glen Roy as a National Nature Reserve and (ii) highlight the geoheritage value of the Callender moraine in the face of development plans (now withdrawn).

d. IX INQUA. The President had attended the IX INQUA Congress in Nagoya, Japan, as the UK representative. He had attended all of the formal National Delegate functions, including meeting the Emperor and Lady Empress at the Opening Ceremony and participating in the three meetings of the International Council (IC). Ahead of the IC meetings, the President had also convened a meeting with UK delegates to outline the importance of several key IC agenda items and to seek views and comments where appropriate. Issues discussed included the costs of INQUA membership and the nature of important upcoming votes (revision of fee bands, venue of the next Congress, IC positions). The President reported on the new appointments to the IC and that Ireland had secured sufficient votes (from a closely-fought campaign) to host the next Congress in 2019.

e. Deceased members. The President sadly reported the deaths in 2014 of Jocelyn Riley (an obituary by Jim Rose had appeared in *QN* 136, June 2015) and in 2015 of R.G. Thomas (Plymouth), R.J. Price (Glasgow) and G.H. Smith (Oxford).

f. QRA Executive Committee. The President noted several personnel changes to the Executive Committee. Postgraduate Representative Chris Darvill had completed his term of office in September and had been replaced by Laura Crossley (Southampton), who had been voted in at the Cambridge Postgraduate Symposium. Several committee members were completing their terms of office at this AGM, namely John Gordon (Conservation), Sven Lukas (Editor, *QN*), Erin McClymont (Awards) and Danielle Schreve (Vice-President). All were thanked on behalf of the membership for their considerable efforts over the past three years and for volunteering to serve the Association at a time when academics are becoming increasingly burdened with administrative and target-driven duties.

5. Honorary Members of the QRA

The President announced that four members had been nominated by the Executive Committee to receive Honorary Member status: Chris Caseldine (Exeter), Rick Shakesby (Swansea), Tony Stuart (Durham) and David Sugden (Edinburgh). These nominations were accepted unanimously by the membership and were announced at the meeting with citations that will subsequently appear in a forthcoming issue of *QN*.

6. Annual Report of the Secretary

The report covered the period January – December 2015.

a. Membership. Total membership of the Association currently stands at **1248**, continuing the modest upward trajectory of the past few years (Table 1).

	2009	2010	2011	2012	2013	2014	2015	Change (14–15)
Ordinary Members	545	575	581	602	598	636	656	+20
Postgraduate Members	269	275	331	343	344	368	358	–10
Unwaged/Retired Members	140	145	149	141	145	146	147	+1
Honorary members	22	28	28	29	31	35	38	+3
Institutional members*	33	29	29	29	37	29	26	–3
Corresponding members	16	19	19	20	19	23	23	0
Total Membership	1025	1071	1137	1164	1174	1237	1248	+11

Table 1. Summary of membership data as of 1 December 2015. *Includes copyright members

Subscriptions for 2015 were unchanged at £20, with a reduced rate of £10 for students and unwaged members. The institutional membership rate is £35. On behalf of the membership, the Executive Committee once again thanks Val Siviter for all the hard work she does for the Association, notably with regard to management of the membership database.

Honorary Members

Three distinguished scientists were elected as Honorary Members of the Quaternary Research Association at its AGM, held at *Our Dynamic Earth* in Edinburgh in January 2015: Colin Ballantyne (St Andrews), Stewart Campbell (Natural Resources Wales) and Charles Turner (Open University). Citations were published in *QN* (number 135, February 2015). A list of Honorary Members of the QRA is published on the website (qra.org.uk).

b. Meetings

- i) Annual Discussion Meeting: Quaternary Geology of the North Sea and Adjacent Areas**
Our Dynamic Earth, Edinburgh, 5–8 January 2015
Organisers: Emrys Philips, Carol Cotterill, Margaret Stewart, Mads Huuse, David Hodgson and Simon Carr
Attendees: 189
- ii) Field Meeting: The Quaternary of the Lake District**
Blencathra Field Studies Centre, Threlkeld, Cumbria, 21–24 May 2015
Organisers: Des McDougall and Dave Evans
Attendees: 50
Report: *QN* 137 (October 2015)
- iii) Short Discussion Meeting: The Quaternary of Southern South America**
University of Glasgow, 2–3 June 2015
Organisers: Alessa Geiger, Chris Darvill, Tom Roland and Neil Glasser
Attendees: 34
Report: *QN* 137 (October 2015)
- iv) 20th Annual QRA Postgraduate Symposium**
University of Cambridge, 2–4 September 2015
Organisers: Jenny Roberts, Thomas Williams, Ashleigh Massam, Michelle McCrystall and Julia Gottschalk
Attendees: 46
Report: *QN* 137 (October 2015)
- v) Research Group Meeting: QRA Sea Level and Coastal Change (SLaCC)**
Cumbria, 16–18 September 2015
Organisers: Sarah Woodroffe and Natasha Barlow
Attendees: 32
- vi) Joint QRA/IQUA Field meeting: The Quaternary of SE Ireland**
Wexford and Waterford, 25–29 September 2015
Organisers: Pete Coxon, Colm O’Cofaigh, Gayle McGlynn, Dave Evans and Bettina Steffanini
Attendees: 43
- vii) Joint QRA/GLWG Field meeting: The Quaternary of Gower**
Gower Peninsula, 22–25 October 2015
Organisers: Rick Shakesby and John Hiemstra
Attendees: 48

The **Wiley Annual Lecture** for 2015 was delivered during the Annual Discussion Meeting held at *Our Dynamic Earth*, Edinburgh, by Dag Ottesen (Geological Survey of Norway) entitled *Sedimentary infill and depositional environment of the Early Quaternary North Sea Basin (56–62°N)*. The Executive Committee extends its thanks to the many people who organised meetings, supported the meetings through their participation and who reported on these activities in *QN* for the information of the wider membership.

c. Publications

Quaternary Newsletter

3 issues: 135 (Feb 2015), 136 (June 2015), 137 (October 2015)

Editor: Dr Sven Lukas (Queen Mary, University of London)

Journal of Quaternary Science

Volume 30: containing 73 research papers across eight issues, two of which were themed special issues (*Revolutions in Quaternary Science and Chronology*, *Palaeoenvironments and Subsistence in the Acheulean of Western Europe*).

Editor: Professor Geoff Duller (University of Aberystwyth)

QRA Field Guides

Three field guides were published: *The Quaternary of the Lake District* (McDougall & Evans), *The Quaternary of South East Ireland* (McGlynn & Stefanini) and *The Quaternary of Gower* (Shakesby & Hiemstra), each produced to accompany QRA field meetings held in 2015.

The publication of field and technical guides continues to form an important part of the Association's activities and play a major role in raising the profile of the QRA and promoting Quaternary science research. Suggestions for topics for new technical guides or localities for field meetings and accompanying guides are most welcome. See the Publications Secretary's report for further details.

d. QRA Grants and Awards

During 2015, **£22,316** was disbursed by the QRA to 48 of its members under its standard awards schemes (Table 2). The full list of successful applicants is given in Table 4a.

Fund	No. of applications		No. funded	Total monies requested (£)	Total monies awarded (£)	Funded ¹ (%)
New Research Workers' Awards	Jan	3	3	£3,000	£1,850	62
	May	9	5	£5,901	£3,170	65
	Sept	3	3	£2,638	£2,000	76
	Total	15	11	£11,538	£7,020	61
Quaternary Conference Fund	Jan	11	9	£4,910	£3,150	64
	May	8	7	£3,730	£2,260	61
	Sept	5	5	£2,335	£2,085	89
	Total	24	21	£10,974	£7,494	68
Quaternary Research Fund	Jan	6	3	£5,130	£2,050	40
	May	6	4	£5,497	£2,800	51
	Sept	2	2	£1,560	£1,310	84
	Total	14	9	£12,186	£6,160	51
Subtotal	53		41	£34,699	£20,674	60
ADM 15	0		0	0	0	0
PGMA 15	1		1	£160	£130	–
Bill Bishop	1		1	£800	£800	–
C14-Dating Short Course	4		3	–	£1,512	–
QUB_C14 ²	2		2	–	–	–
Total	61		48	£35,659	£22,316	63

Table 2. Summary of standard awards for 2015. ¹ Refers only to eligible applications. ² Refers to number of applicants, not the number of dates requested.

Special Grants

- The **Bill Bishop Award** for 2015 was made to Lauren Knight (Portsmouth University) in support of a field campaign in the Wicklow Mountains, Ireland, to investigate geomorphological and sedimentary evidence for former glaciation.
- Two **QRA-¹⁴CHRONO** radiocarbon dating awards were made, to Michael Corcoran (University College Dublin) and Jack Longman (Northumbria University). At the September meeting, the QRA Executive Committee approved a revision to the timing of the ¹⁴CHRONO Award applications: these will now occur in January and May each year, and an email announcement was circulated to members in October advising of this change.
- One **Postgraduate Meetings Award (PMA)** was made, to Dayang Siti Maryam Binti Mohd Hanan (University of York), to attend the first *Sea Level and Coastal Change (SLaCC) Research Group* field meeting in Cumbria.

QRA Prizes

- The 2015 James Croll Medal was awarded to Alayne Street-Perrot (Swansea).
- The 2015 Lewis Penny Medal was awarded to Tom White (Oxford).
- Citations will appear in an issue of *QN* in due course. Siwan Davies is thanked for kindly acting as an external assessor for this year's Lewis Penny Medal.

INQUA Congress Fund 2015

The Association received 47 applications for support to attend the IX INQUA Congress in Japan, seeking a total of £30,275 (Table 3). The budget approved for expenditure by the Executive Committee was £25,000. Support was pledged across all levels of the membership and, as in previous years, all applicants were assessed and ranked based on their contributions to the Congress. Many applicants did not seek support for the full £750 available, especially where the INQUA Early Career Researcher (ECR) programme was available. Most researchers were funded at ~£400–£500, and many applicants at £600–£700. A small number of applications were rejected where a strong case for support had not been made. The full list of recipients supported by the QRA can be found in Table 4b.

INQUA Congress Fund 2015	Applications	Funds sought	Awards	Funds awarded	% awarded (by value)	% awarded (by number)
Professor	2	£1,250	2	£1,100	88	100
Senior Lecturer / Reader	4	£2,800	4	£2,600	93	100
Lecturer	5	£3,145	5	£2,450	78	100
Postdoctoral researcher or fellow	11	£6,590	11	£5,750	87	100
PhD student	25	£16,490	21	£12,100	74	84
	47	£30,275	43	£24,000		

Table 3. Summary of applications for INQUA Congress Fund support in 2015.

Online applications

This has been the first year to run with an online application system for most awards. Although there have been some technical glitches concerning data entry (for applicants) and subsequent download issues (for the Awards Officer), we are continuing to work with *FocalStrategy* (who manage the website) to improve the user experience.

The outgoing Awards Officer thanked the various members of the Awards Panels who have reviewed the considerable volume of awards applications and prize nominations received over the previous 3 years, particularly Danielle Schreve and Tom White.

Table 4. Successful award recipients in 2015.**a. Standard Awards**

Name	Institution	Title	Awarded
New Research Workers Award (NRWA)			
Jonathan Cripps	<i>Simon Fraser University</i>	Canada fieldwork	£500
Lauren Davies	<i>University of Alberta</i>	Developing a cryptotephra framework for NW North America: A baseline chronostratigraphy for the Holocene from northwestern sources.	£650
Valentina Vanghi	<i>University of Newcastle (Australia)</i>	Fieldwork to Frasassi Cave (Central Italy) and Lamalunga Cave (South Italy) to collect stalagmites samples	£700
Jacob Bendle	<i>Royal Holloway University of London</i>	Quantifying ice sheet retreat rates using varved lake sediments	£700
Anna March	<i>Queen Mary University of London</i>	Climate variability during MIS 11 in Britain	£800
Helena Stewart	<i>University of Stirling</i>	Peat's secret archive: reconstructing the North Atlantic storm frequency and tephrochronology for the Holocene.	£420
Jenna Sutherland	<i>Royal Holloway University of London</i>	Fieldwork -Travel to and from Royal Holloway to location of fieldwork (Tunstall, Yorkshire)	£400
Emily Wiesendanger	<i>Royal Holloway University of London</i>	An assessment of mortality profiles and seasonality within Late Pleistocene reindeer (<i>Rangifer tarandus</i>) assemblages.	£850
Vasilija Lukich	<i>University of Toronto</i>	Thin section analysis	£800
Melissa Marr	<i>Royal Holloway University of London</i>	Laboratory visit to Orlando Laboratory, Centre for GeoGenetics, University of Copenhagen (Late and Postglacial faunal recolonization of the British Isles)	£500
Millie Watts	<i>Southampton University</i>	Tephrochronological constraints on a pre-Holocene Storegga Slide: dating the Tampen mega slide using tephrochronology.	£700
Quaternary Conference Fund (QCF)			
Macarena L. Cardenas	<i>University of Reading</i>	80th Annual Meeting of the Society for American Archaeology (SAA)	£350
Kimberley Davies	<i>Southampton University</i>	13th International Paleolimnology Symposium (IPS2015), Lanzhou, China	£400
Anna Godlewska	<i>Maria Curie-Skłodowska University</i>	31st IAS Meeting of Sedimentology – Cracow (Poland)	£250
Cynthia Froyd	<i>Swansea University</i>	PAGES workshop: Scaling forest insect and pathogen disturbances across temporal scales. Santa Fe, New Mexico USA.	£350
Theodora Moutsiou	–	Society for American Archaeology Annual Meeting (Obsidian Session) San Francisco, California	£400
Rachel Patterson	<i>Queen's University Belfast</i>	Canadian Quaternary Association biennial meeting (CANQUA).	£350
Ann Rowan	<i>Sheffield University</i>	European Geosciences Union (EGU) General Assembly, Vienna	£350
Matteo Spagnolo	<i>University of Aberdeen</i>	European Geosciences Union (EGU) General Assembly, Vienna	£350
Robert Storrar	<i>Queen Mary University of London</i>	International Symposium on the Hydrology of Glaciers and Ice Sheets. Hofn, Iceland	£350
Katie Davenport-Mackey	<i>University of Leicester</i>	Meso 2015. The Ninth International Conference on the Mesolithic in Europe, Belgrade, Serbia.	£350
David Giles	<i>Portsmouth University</i>	XVI European Conference on Soil Mechanics and Geotechnical Engineering, Edinburgh	£160
Suzanne Leroy	<i>Brunel University London</i>	13th International Paleolimnological Symposium 2015 in Lanzhou, China	£350
Jonathan P. Lewis	<i>Loughborough University</i>	Estuarine Coastal Sciences Association (ECSA) Meeting, London	£350
Paul Preston	–	Meso 2015. The Ninth International Conference on the Mesolithic in Europe, Belgrade, Serbia.	£350
Sarah Roberts	<i>University of Nottingham</i>	13th International Paleolimnological Symposium 2015 in Lanzhou, China	£350

Maarten van Hardenbroek	<i>Southampton University</i>	13th International Paleolimnological Symposium 2015 in Lanzhou, China	£350
Onema Adojoh	<i>University of Liverpool</i>	Quaternary geology and geomorphology section of the AASP and GSA annual meeting, Baltimore, USA	£450
Holly East	<i>Exeter University</i>	International Coastal Symposium, Crowne Plaza Coogee Beach, Sydney, Australia	£400
Thomas J. Kelly	–	European Conference of Tropical Ecology	£450
Pierre Lardeux	<i>Aberystwyth University</i>	American Geophysical Union (AGU) Fall Meeting in San Francisco, USA	£450
Katy Roucoux	<i>University of St Andrews</i>	Annual Conference of the Society for Tropical Ecology	£335
<u>Quaternary Research Fund (QRF)</u>			
John F. Carson	<i>University of Reading</i>	Pre-Columbian Amazonia: virgin wilderness or domesticated landscape?	£700
Philip D. Hughes	<i>University of Manchester</i>	Fieldwork in Greece	£650
Gina Moseley	<i>University of Innsbruck</i>	Northeast Greenland Caves Project	£700
Martin R. Bates	<i>University of Wales Trinity Saint David</i>	Fieldwork in Tanzania	£800
Stephen Livingstone	<i>Sheffield University</i>	British-Irish Ice Sheet Palaeo-Ice Stream Corridor Project – The Forth and Tay, southern Scotland	£600
Suzi Richer	<i>Worcestershire Archive and Archaeology Service</i>	The site that slipped through the 'lime decline' net: A Holocene history of Tilia at Shrawley Wood, Worcestershire.	£750
Vincent Rinterknecht	<i>University of St Andrews</i>	The last glacial maximum extent in NW Karelia, Russia	£650
Sean Pyne	<i>Queen's University Belfast</i>	The tephrochronology of Għar Dalam cave, Malta	£560
O'Donnell Kevin P.	<i>University of Hull</i>	Long-term water management and river development over the Mianab Plain and Khuzestan Plains of south-west Iran	£750
<u>Postgraduate Meetings Award (PMA)</u>			
Dayang Siti Maryam	<i>University of York</i>	Sea level and Coastal Change (SLaCC) Research Group first field meeting, Kendal, Cumbria UK	£130
Binti Mohd Hanan			
<u>QRA-14CHRONO Centre Radiocarbon Dating Award</u>			
Michael Corcoran	<i>University College Dublin</i>	Medieval farming systems, climatic conditions, and open-field landscapes and their enclosure histories in Ireland, 1100AD – 1600AD	
Jack Longman	<i>Northumbria University</i>	Tracing the history of metal smelting in the Carpathian-Balkan region throughout the Holocene	
<u>Radiocarbon dating short course bursaries</u>			
Rowan Dejardin	<i>Nottingham University</i>		
Dayang Siti Maryam	<i>University of York</i>		
Binti Mohd Hanan			
Serena Tarlati	<i>University of Ulster</i>		
<u>Bill Bishop Award</u>			
Lauren Knight	<i>Portsmouth University</i>	Timings and dynamics of glaciation in the Wicklow Mountains, Ireland.	
<u>James Croll Medal</u>			
Alayne Street-Perrot	<i>University of Swansea</i>		
<u>Lewis Penny Medal</u>			
Tom White	<i>University of Oxford</i>		

b. INQUA Congress 2015 (Japan) Awards

Name	Institution	Awarded
Permanent academic staff		
Mike Bentley	<i>Durham University</i>	£600
Rebecca Briant	<i>Birkbeck University of London</i>	£700
David Bridgland	<i>Durham University</i>	£500
William Fletcher	<i>University of Manchester</i>	£550
Michael Frogley	<i>University of Sussex</i>	£700
Peter Langdon	<i>University of Southampton</i>	£700
Ian Lawson	<i>University of St Andrews</i>	£500
Ian Matthews	<i>Royal Holloway University of London</i>	£500
Stephanie Mills	<i>University of Plymouth</i>	£500
Helen Roe	<i>Queen's University Belfast</i>	£500
Abigail Stone	<i>University of Manchester</i>	£500
Postdoctoral researchers / fellows		
Peter Abbott	<i>Swansea University</i>	£450
Natasha Barlow	<i>Durham University</i>	£500
Anna Bourne	<i>Swansea University</i>	£500
Julie Durcan	<i>University of Oxford</i>	£750
Michelle Farrell	<i>Queen's University Belfast</i>	£650
Michael Grant	<i>University of Southampton</i>	£500
Victoria Herridge	<i>Natural History Museum</i>	£500
Fiona Hibbert	<i>National Oceanography Centre (Southampton)</i>	£350
Robyn Inglis	<i>University of York</i>	£750
Alison MacLeod	<i>Royal Holloway University of London</i>	£400
Alexander Pryor	<i>University of Southampton</i>	£450
PhD researchers		
Samantha Bromfield	<i>University of Brighton</i>	£400
Jennifer Campbell	<i>University of Manchester</i>	£600
Christopher Darvill	<i>Durham University</i>	£650
Alessa Geiger	<i>University of Glasgow</i>	£650
Joanne Egan	<i>University of Manchester</i>	£650
Adam Griggs	<i>Swansea University</i>	£650
Sebastian Gibson	<i>University of Cambridge</i>	£450
Geoff Hill	<i>Queen's University Belfast</i>	£600
Jonathan Hassell	<i>University of Southampton</i>	£400
Penelope Jones	<i>McDonald Institute for Archaeological Research (Cambridge)</i>	£650
Gwydion Jones	<i>Coleg Cymraeg Cenedlaethol (National Welsh College)</i>	£550
Katie Loakes	<i>University of Loughborough</i>	£650
Emma Loftus	<i>University of Oxford</i>	£700
Helen Mackay	<i>University of Southampton</i>	£650
Maureen McHenry	<i>University of Ulster</i>	£600
Georgina Milne	<i>Queen's University Belfast</i>	£600
Sabrina Renken	<i>Trinity College Dublin</i>	£450
Francis Rowney	<i>University of Plymouth</i>	£650
Jenni Sherriff	<i>Royal Holloway University of London</i>	£650
Mark Stevenson	<i>University of Nottingham</i>	£500
Rhys Timms	<i>Royal Holloway University of London</i>	£400

Full details of all QRA grants and awards are available on the QRA website: qra.org.uk/grants

e. Research Groups and Study Groups

The Research Group scheme is designed to provide a small quantity of start-up funding over a three year period for specialist Quaternary research groups, with the aim to bring research communities together, foster communication and provide an opportunity for new research projects to be formulated. The scheme has launched a number of significant research collaborations in the past.

The QRA currently supports one research group, SLaCC, which completes its three-year period of funding at the end of 2018. The aim of the **Sea Level and Coastal Change Research Group**

(SLaCC) is to draw together scientists from the UK and NW Europe that are actively researching sea-level and coastal changes and the impact of sea-level change on the coastal environment, in the past, present and future. They organise annual meetings to discuss sea-level and coastal change over a range of time and spatial scales but with particular relevance to vulnerable coastal communities within the UK and NW Europe. Their first meeting was held in 2015 in Cumbria and a report will appear in a future issue of *QN*. More information: dur.ac.uk/geography/slacc/

New proposals for research groups are invited at any time. Ideas and proposals for new research groups may be discussed with the Secretary. These will be put to the membership for approval at the Annual General Meeting.

f. Outreach

As a registered charity, outreach is an important part of our activities and, as our Outreach and External Liaison Officer, Barbara Silva has been pro-active in pushing forward our activities on this front.

QRA Undergraduate Dissertation Prize

There were two winners of the 2015 prize: Neil Adams (Royal Holloway) for his dissertation entitled *A palaeoenvironmental analysis of the Early Pleistocene 'Siliceous Member' at Westbury Cave, Somerset, UK* and Thomas Dunn (Sheffield), for his dissertation entitled *Greenland Ice Sheet supra-glacial lakes: their relationship with bed topography, ice thickness and ice flow velocity*. Abstracts of the winning dissertations will be published in a forthcoming issue of *Quaternary Newsletter*. The Association wishes to thank the examiners, Ian Candy and Ian Evans, and to acknowledge the continuing support of Catherine Souch and others at the RGS for the administration of the prize.

Top 50 Quaternary Sites

This year saw the Top 50 Quaternary Sites initiative go live on the QRA website. Coordinated by Barbara Silva and Emrys Phillips, a comprehensive printed document containing details of more than 80 sites is now available for download (qra.org.uk/top-50-quaternary-websites/), accompanied by an interactive map. The intention is for this to be a dynamic resource for the entire Quaternary community and members are actively encouraged to continue contributing sites.

QRA Outreach Award

The QRA encourages its members and others to promote and foster engagement between Quaternary science and a wide and diverse audience. In support, we offer an annual Outreach fund from which grants will be awarded. This year we contributed funding (along with NERC, RGS-IBG and the Universities of Sheffield, Leeds, Aberystwyth, Northumbria and Hertfordshire) towards an exhibit entitled *Vanishing Glaciers of Everest*, displayed initially at the Royal Society Summer Science Exhibition and subsequently touring other science festivals and events (including the 2016 ADM). We also contributed funds towards an Earth Science Week outreach educational project by the North West Highlands Geopark. For more details please contact the Outreach Officer (outreach@qra.org.uk).

g. Executive Committee

Five members of the Executive Committee completed their terms of office:

- September 2015: Chris Darvill (Postgraduate Representative)
- January 2016: Dr John Gordon (Conservation Officer), Dr Sven Lukas (Editor, *QN*), Dr Erin McClymont (Awards Officer) and Professor Danielle Schreve (Vice-President).

The Executive Committee extends its thanks to all these individuals on behalf of the membership for their hard work and contributions towards the running of the Association throughout their periods in office.

We also welcomed a new postgraduate representative on to the Executive Committee in September, Laura Crossley (University of Southampton), who will represent the QRA postgraduate community for the next two years.

h. Postgraduate activities

Postgraduate events continue to be an important component of the activities of the Association. The Annual Postgraduate Symposium series continued, with the 2015 event being held at the University of Cambridge in September. The meeting was a success and a full write-up of the event appeared in issue 137 of *QN*. Postgraduate interests are represented on the Executive Committee by two members, who are elected at the Annual Postgraduate Symposium (both posts last for two years). The PG representatives also maintain the social media accounts of the Association.

i. Publicity

This year has seen continued development of the functionality and content of the new website, including improvements to the online bookstore and the submission procedure for grant applications. Further upgrades are in the pipeline. Our Publicity Officer, Bethan Davies, is to be thanked for continuing to oversee the website improvements. Members also now receive mailshots to their email accounts approximately once a week: relevant announcements should be sent to the Publicity Officer for circulation (publicity@qra.org.uk).

j. Conservation

The QRA recognises that geoconservation is particularly important at a time when Quaternary sites are under increasing pressure from development and other human impacts. Recognition of the value of conserving Quaternary sites is vital both for the field-based research and education that are essential to advance the science, and also for the wider benefits for the environment and society. The QRA and its members already carry out many activities that support and promote geoconservation, particularly through field and discussion meetings, as well as offering practical support and working with local groups. The role of QRA Conservation Officer on the Executive Committee is to support and encourage these activities, as well as to present the QRA's position on conservation issues. To this end, our Conservation Officer, John Gordon, has been extremely busy on the Association's behalf during 2015. Some of the most important initiatives have included:

- (i) Publishing the QRA's detailed position statement on geoconservation in *Earth Heritage* (vol 44, 2015), *Quaternary Newsletter* (137, Oct 2015) and online;
- (ii) Contributing to the final form of the Scottish Ethical Rock Collection Policy, particularly in relation to guidance on sampling for surface exposure dating using terrestrial cosmogenic nuclides;
- (iii) Being involved in successful efforts to (i) oppose the de-listing of Glen Roy as a National Nature Reserve and (ii) highlight the geoheritage value of the Callender moraine in the face of development plans (now withdrawn).

k. QRA Archives

Work has continued throughout the year on the QRA archive project, currently hosted in hard-copy and electronic formats by the RGS-IBG. The Executive Committee is working towards making large parts of this valuable resource available online via the members-only section of the new website.

l. Affiliated links with other societies

The QRA enjoys a mutually beneficial working relationship with both the Geological Society of London (GSL) and the Royal Geographical Society with the Institute of British Geographers (RGS-IBG). Following a successful 5-year trial period, in 2015 the QRA renewed its Memorandum of Understanding with the RGS-IBG (for a further 5 years).

The Secretary's report was ACCEPTED by the membership.

7. Treasurer's Report

The Report covered the period 1 August 2014 to 31 July 2015. Accounts are detailed in Table 5.

a. Introduction

The Association's financial activities have been comparable to previous years, with a further increase in expenditure on Awards; this is primarily due to 2014-15 coinciding with an INQUA Congress, for which the QRA provides financial support additional to its ordinary awards rounds. The QRA's finances remain healthy and stable, and the financial year ended with a modest surplus of £2,024.30.

At the 2015 ADM, the Treasurer had made the case for raising subscriptions due to predicted financial pressures in the coming year; this prediction turned out to be pessimistic and income from subscriptions and book sales in fact rose significantly during 2015. In addition, a new stream of royalties paid to us by the Publishers Licensing Society proved to be more significant than expected, and postage costs went down for the first time in three years.

The Treasurer therefore revised his view that subscriptions needed to increase at this time, although it may be necessary to revisit this in future.

b. Income

Income from membership subscriptions, paid directly into our main subscriptions account via standing order, was £11,494.46 and remains similar to that of 2013-14. This was supplemented by a small sum of £2,321.43, paid into our PayPal account during the transition to the Stripe online payment system. Online book sales, paid directly into our publications account, totalled £1,648.40. The Stripe method of accepting online payments does not separate subscriptions from book sales, so an additional sum of £7,762.98 also appears in the account that represents income from both sources. In total, our income from subscriptions and book sales amounted to £23,227.27, which is a significant increase on previous years.

Banking interest continues to decline and amounted to £28.33. High-yield accounts, such as the bond that matured in the previous financial year, are no longer available as risk-free products and the Treasurer has not felt able to invest the QRA's money in such schemes. However, he continues to investigate means of generating a better interest rate for the QRA's holdings.

The Association continues to receive a significant amount from Wiley as a profit-share from publication of *Journal of Quaternary Science*, which this year totalled £46,213. In addition, royalties held for us by the Publisher's Licensing Society (PLS) were paid for the first time this year, amounting to an additional £10,921.22. It is not yet clear how much money will be generated from this source in the long-term, but as of December 2015 a further £2,383.73 had already accrued in our PLS account. Assuming that the Association is able to rely on these income streams for the foreseeable future, our working income (subscriptions, book sales and royalties) amounts to £78,040.06, an increase on previous years that is entirely attributable to income from the Stripe and PLS sources. These may prove to be exceptional for this financial year, so a working income of ~£60,000 remains a sensible estimate until the stability of these income sources can be established.

The Treasurer has also assumed responsibility for administering a fund for the JQS editorial board, which appears within the QRA's main accounts for this first time this year. This money is ring-fenced for use on JQS expenses. For 2014-15, the payment amounted to £13,794.40, of which £13,354.01 was spent, providing the QRA with a small surplus.

c. Expenditure

Day-to-day running costs have decreased slightly from £21,463.34 to £19,161.28. This is due to an unexpected reduction in postage costs, which had risen rapidly in previous years. The cost of producing *QN* is also lower than in the 2013-14 financial year, due to costs for printing four issues appearing in that account. Invoicing is now in-step with publication.

The cost of running the Executive (travel, room hire) continues to fluctuate depending on its composition, but falls within the range of variation evident over the last few years at £2,140.90.

Our budget to support activities through grants, awards and sponsorship was maintained at £25,000, in response to the increase in high-quality applications received in the previous year. We spent a total of £26,510.54 through our normal schemes, and an additional £23,650 in support of participation at the INQUA Congress in Japan, resulting in a total of £50,160.54 being spent on grants, awards and support for meetings.

d. Income *versus* Expenditure

Running income (£23,227.27) against running expenditure (£19,161.28) shows a surplus of £4,065.99; income from subscriptions and book sales therefore continues to fund the basic operation of the Association (i.e. publication and postage of *QN*, admin support, Executive costs and insurance). Expenditure on grants and awards, printing of field guides and other activities rely on our royalties from the publication of JQS and, from 2015, from the PLS. Total income for the year including these sources was £140,166.77, with total expenditure totalling £137,454.57, resulting in a modest surplus of £2,024.40.

e. Year-End Financial Status

At the end of July 2015, we held:

£ 58,049.81	in our Bank of Scotland Treasurer's Account
£ 25,434.95	in our Bank of Scotland Publications Account
£ 65,789.40	in our HSBC Community Account (including the matured HSBC Bond)
£ 40,486.73	in our HSBC Manager's (savings) Account

We started the 2014-15 year with £187,735.82 and ended with £189,760.89. The QRA's holdings have now been consolidated into these four main accounts.

Ring-fenced sums within our holdings include £15,254.52 held in trust for the Bill Bishop Award, £85,500 for the INQUA fund, £5000 for the Lewis Penny Medal and £30,000 to meet any unexpected liabilities. This leaves ~£50,000 to carry forward, in addition to an anticipated income of ~£60,000 derived from subscriptions, book sales and royalties. Anticipated expenditure for the 2014-15 financial year includes ~£18,000 for running costs, £10,500 INQUA subscription and £25,000, totalling ~£53,500; other costs will no doubt be incurred. As always, the Treasurer will aim to break-even within the financial year.

f. Auditing

The finances have not yet been audited and were submitted to the AGM subject to approval by the external auditor.

The Treasurer's report was ACCEPTED by the membership.

Table 5. Income and expenditure on the Treasurer's Account for 1 August 2014 – 31 July 2015.

	£ <u>2012 - 13</u>	£ <u>2013 - 14</u>	£ <u>2014-15</u>
<u>INCOME</u>			
Subscriptions	11744.13	11596.48	11494.46
Total Subscriptions Income	11744.13	11596.48	11494.46
Book sales	615.80	2845.30	1648.40
Total Publications Income	615.80	2845.30	1648.40
Subs/book sales (Stripe payments)	0.00	0.00	7762.98
Total Subs/Booksales	12359.93	14441.78	20905.84
Subs/Booksales annual totals:	12359.93	38583.02	23227.27
Publisher's Royalties (JQS)	45057.00	45304.00	46213.00
Publisher's Royalties (PLS)	0.00	0.00	10921.22
Royal Society: INQUA Subscription Support	5500.00	5230.30	5037.38
Surplus on Meetings	1563.80	1724.45	1492.75
Bank refunds	0.00	9453.44	0.00
Internal transfer (from HSBC MM)	0.00	20000.00	0.00
ADM sponsorship	0.00	1858.22	0.00
Advertising	600.00	600.00	0.00
ADM income (Eventbrite)	0.00	37585.65	30135.00
ADM refund	0.00	0.00	7199.85
Returned awards	0.00	0.00	1800.00
Donations	346.44	317.57	317.57
Interest Received	42.27	38.56	28.33
Bond maturation	0.00	4346.70	0.00
Transfer (from PayPal account)	0.00	24141.24	2321.43
Transfer (from HSBC bond)	0.00	0.00	35430.17
Other income	460.00	0.00	0.00
Total Other Income	78289.37	150600.13	140896.70
JQS Editorial Board Account	0.00	0.00	13794.40
<u>TOTAL INCOME</u>	<u>90649.30</u>	<u>165041.91</u>	<u>175596.94</u>
<u>WORKING INCOME</u>	<u>57416.93</u>	<u>59745.78</u>	<u>78040.06</u>
<u>EXPENDITURE</u>			
Newsletter & Circular printing	5857.40	5990.80	3636.00
Newsletter postage	5637.40	6174.72	5102.28
Admin support	6000.00	6000.00	6000.00
Postage & stationery	344.71	806.92	0.00
Executive Committee Costs	2648.11	1523.14	2140.90
Exec. INQUA costs	0.00	0.00	1241.77
Insurance premium	740.68	967.76	1040.33
Total Running Expenditure	21228.30	21463.34	19161.28
Printing (Field Guides & Books)	3095.00	18990.00	8982.32
Printing (other)	0.00	1228.00	26.00
Total Publications Expenditure	3095.00	20218.00	9008.32

JQS Editorial Board Costs (from ring-fenced budget)		0.00	0.00	13345.01
Grants/Awards/Support				
Grants	NRWA	11465.00	13320.00	6700.00
	QRF	3900.00	8625.00	7910.00
	QCF	7084.00	11930.00	7230.00
	PGMA	220.00	0.00	393.00
	Outreach Award	0.00	1200.00	1500.00
	Undergrad dissertation prize	250.00	250.00	250.00
	ADM Poster prizes	0.00	100.00	50.00
Support for delegates to INQUA Congress		0.00	0.00	23650.00
C14 bursaries		1212.00	0.00	504.00
Bill Bishop Memorial Fund Award		800.00	0.00	800.00
Croll and Lewis Penny Medals (ADM Travel)		364.30	1050.50	173.54
Postgraduate Conference		613.80	500.00	500.00
Sub-group support	GLWG	500.00	0.00	0.00
	SLACC	0.00	0.00	500.00
		26409.10	36975.50	50160.54
Outreach	S. Senk	500.00	0.00	0.00
	Other	0.00	0.00	0.00
		750.00	0.00	0.00
Other		1000.00	0.00	0.00
Total Grants/Awards/Support		28659.10	36975.50	50160.54
Refunds/reimbursements (subs/postage errors)		19.39	11288.83	23.60
Refund (ADM subs etc)		0.00	0.00	1256.38
Meetings expenditure		1000.00	1500.00	3500.00
Catering (meetings)		0.00	0.00	3061.92
INQUA subscription		11253.67	10767.96	11170.17
Web Site costs		600.00	3360.00	3636.00
Dissertation Prize admin (RGS)		0.00	200.00	0.00
Medals - striking/engraving		2976.48	53.04	38.40
ADM costs (venue hire)		0.00	28366.60	23466.75
ADM deposit		0.00	6960.00	0.00
Total other expenditure		15849.54	62496.43	46153.22
Funds transfer (to HSBC Community)		0.00	20,000.00	0.00
Swets		0.00	0.00	175.00
Bank charges		0.00	723.12	139.00
<u>TOTAL EXPENDITURE</u>		<u>68831.94</u>	<u>161876.39</u>	<u>138142.37</u>
NET SURPLUS / DEFICIT		−£2,152.49	£3,165.52	£37,454.57
				£2,024.40

T. White

8. Publications Secretary's Report

a. New and upcoming titles

Three new Field Guides were published during 2015 relating to Field Meetings held during the year and are now available for sale: (1) *The Quaternary of the Lake District* (McDougall & Evans); (2) *The Quaternary of South East Ireland* (McGlynn & Stefanini); and (3) *The Quaternary of Gower* (Shakesby & Hiemstra). Currently, there is one publication in the pipeline for 2016: a Field Guide to accompany the Spring Field Meeting to the Isle of Skye (Ballantyne & Lowe).

It was noted that production costs have been reduced due to smaller print runs and the lower cost of digital printing. This also means that new titles can now be full colour.

b. Book sales

This year saw a significant change in sales strategy, including the use of the new online bookstore, a new pricing structure and increased marketing. This resulted in 2015 sales having been the highest since 2009, with a 70% increase in sales annually compared to the average over the 2011-2014 period. The biggest sellers were: (1) Lake District; (2) Dartmoor; (3) Lower Thames & Essex; (4) Northumberland & County Durham; (5) Glaciotectonics; (6) Chironomids TG.

c. *Journal of Quaternary Science* / *Quaternary Newsletter*

Eight issues of *JQS* were published in 2015; the impact factor had increased to 3.357. The Publications Secretary recorded his thanks to the editor (Geoff Duller), the Editorial Board and to Wiley, for all of their continued efforts and support of the QRA. Three issues of *QN* had been published in 2015, which remains healthy in terms of article submissions. The Publications Secretary thanked the outgoing editor, Sven Lukas, for his hard work in smoothly running the newsletter.

The Publication Secretary's report was ACCEPTED by the membership.

9. Consultation: distribution of *Quaternary Newsletter*

The President outlined the rationale of a forthcoming membership consultation that will examine the possibility of *Quaternary Newsletter* (and the Circular) being distributed electronically from 2017. The key drivers for going electronic include cost (printing and postage charges were ~£8700 in 2014-15 and closer to £12,000 in the two years prior to that) and editorial / aesthetic reasons (including the ability to include colour, a much faster turnaround of issues, and no page limits). However, the Executive Committee recognise that receiving a hard-copy of *QN* is a tangible benefit of membership, especially for those members who, for various reasons, either choose or are unable to engage regularly with the Association via its other activities (such as meetings and grants). The Executive will launch a consultation exercise later in 2016 with a view to seeking the opinion of members before taking any decision on the future of *QN* distribution.

Discussion by members present explored whether subscription levels might vary depending on how members chose to receive their issues, what other costs might be incurred by the Association (for example, additional web-hosting charges), and how the transition to an electronic publication model might be achieved. The issue of making publications such as Field Guides available as electronic documents was also raised; the President reassured members that this was also being investigated as part of a broader reassessment of publication strategies.

10. Meetings Officer's Programme

The Meetings Officer outlined the forthcoming programme of meetings currently confirmed for 2016 and 2017:

2016 Meetings

QRA Annual Discussion Meeting

6–8 January *Quaternary Drivers and Responders*
Venue: Royal Holloway University of London
Organisers: Danielle Schreve, John Lowe, Ian Candy, Simon Blockley, Bethan Davies (RHUL)
Contact: Danielle.Schreve@rhul.ac.uk

QRA Field Meeting

20–23 May *The Quaternary of the Isle of Skye*
Venue: Portree, Isle of Skye
Organisers: Colin Ballantyne (St Andrews) and John Lowe (RHUL)
Contact: ckb@st-and.ac.uk

QRA Co-sponsored Meeting with the Engineering Group of the Geological Society

10–12 June *Quaternary Periglaciation of Kent*
Venue: Margate
Organisers: Julian Murton (Sussex), Dave Giles (Portsmouth), David J A Evans (Durham)
Contact: J.B.Murton@sussex.ac.uk or d.j.a.evans@dur.ac.uk

QRA Postgraduate Symposium

Dates: tbc
Venue: University of Nottingham
Organisers: Jack Lacey (Nottingham)
Contact: lgxjhl@nottingham.ac.uk

QRA Short Discussion Meeting

6–7 Sept. *New Approaches, New Insights: How developments over the last 30 years have changed our understanding of the Holocene palaeoecology of the British Isles*
Venue: National Museum of Wales, Cardiff
Organiser: Heather Pardoe
Contact: heather.pardoe@museumwales.ac.uk

2017 Meetings

QRA Annual Discussion Meeting

4–7 January *Quaternary Engineering Geology: Implications for Glaciated and Periglaciated Terrains*
Venue: Durham University
Organisers: David J A Evans (Durham), Julian Murton (Sussex), David Giles (Portsmouth), Chris Martin (BP)
Contact: d.j.a.evans@durham.ac.uk

Further details about future QRA meetings can be found at: qra.org.uk/meetings

11. Election of new Executive Committee members

The following people have been nominated to succeed retiring members of the Executive Committee. Nominations were published in the October 2015 Circular. No other nominations were received by the closing date and so the following were duly elected:

Vice-President:	David Bridgland (Durham)
Conservation:	Stewart Campbell (Natural Resources Wales)
Awards:	Adrian Palmer (RHUL)
Editor, <i>QN</i> :	Abigail Stone (Manchester)

12. Award of Prizes and Medals

The President announced the winners of the Association's prizes and medals for 2015:

a. Undergraduate Dissertation Prize. Neil Adams (Royal Holloway) for his dissertation entitled *A palaeoenvironmental analysis of the Early Pleistocene 'Siliceous Member' at Westbury Cave, Somerset, UK* and Thomas Dunn (Sheffield), for his dissertation entitled *Greenland Ice Sheet supra-glacial lakes: their relationship with bed topography, ice thickness and ice flow velocity*.

b. Lewis Penny Medal. Tom White (University of Oxford).

c. James Croll Medal. Alayne Street-Perrot (University of Swansea).

Jonathan Holmes presented Alayne Street-Perrot with a mock-up of a forthcoming special issue of *JQS* containing papers written by colleagues and former students.

Full citations will appear in a future issue of *QN*.

13. Any other business

There was no other business.

The meeting finished at 17:25.

Minutes taken by Dr Mick Frogley (Secretary)

6th January 2016