

## HONORARY SECRETARY'S REVIEW OF 2015

Financially the year was a good one with our activities generating a small operating surplus. There are still some difficult times ahead relating to our principal income streams but we are working to stabilise these and find other areas to generate the income needed. Changes in the academic publishing world will have an impact on our operations sooner rather than later. It is likely we will need to make some significant changes in this area. Should this be necessary we will, of course, be asking for our members' views and support.

Our principal meetings continue to draw a significant and geographically wide audience and almost all the feedback we receive is positive. Even the negative comments contain positive messages about how improvements can be made.

TD3 (Training Day) and FS10 (Furnace Solutions) were a considerable success, so much so that plans are well advanced for TD4 and FS11 in Stoke and an extra FS100 in Sheffield to celebrate our Centenary in 2016. The meeting is proving so popular that the informal practise of some delegates meeting for a meal on the evening before FS has started to become a tradition enjoyed by many.

The annual meeting, after its excursion to the North, went back to the familiar territory of Cambridge. It was well attended and ran a full scientific and H&H programme with some eminent invited speakers. The lack of an industry stream did engender one or two comments which Steering Committee and meeting planners have taken note of. The meeting banquet was held in The Old Library of Emmanuel College and proved again to be one of the highlights of the meeting.

The organisers of these meetings are to be congratulated for the success and thanked for their hard work.

In reviewing 2015 it is difficult not to think of the friends and colleagues who have unfortunately left us during the year. As Honorary Secretary I attended what seemed rather too many funerals and at least one unduly premature. We send our condolences and kindest thoughts to their loved ones.

The currently active technical committees met regularly throughout 2015, continuing their internationally recognised work. You will find a review of their achievements and successes by their respective Chairs later in this annual report.

In the promotion of its work and profile the Society makes a number of Awards each year, although the Pilkington Award is biennial so was not presented in 2015 but will be presented at the SGT100 / ESG conference in Sheffield.

The recipients of awards this year were:-

|                       |                         |
|-----------------------|-------------------------|
| <b>Garvey Award</b>   | Joaquin de Diego Rincon |
| <b>Paul Award</b>     | Laura Swansbury         |
| <b>Oldfield Award</b> | Teresa Buttner          |

A lot of work was done on the SGT rules during 2015 with a significant rewrite to make them as gender neutral as possible. A number of minor changes were also made to better reflect the manner in which the Society actually conducts its business. These changes were welcomed by the members attending the AGM and passed unanimously. A copy of the revised rules can be obtained from the SGT office on application.

The job of keeping the Society running on a day to day basis, publishing two journals and implementing Steering Committee or Council decisions falls largely on the office staff. Their determination, effort and professionalism can sometimes be hidden behind the outcomes which they achieve. They deserve our respect and considerable thanks.

The Society of Glass Technology is 100 years old in 2016 and many members have been involved through committees or on an individual basis in putting together a series of events as a celebration of that event. We hope that as many members as possible will be involved in these events and be the Society's advocates to the world at large for promoting the work we do in the material that captivates us all- Glass.

John Henderson  
Honorary Secretary

## FINANCIAL REVIEW

Despite an otherwise good year, the funds of the society continue to reduce. This is partly due to our dependence on our investments and partly due to the payment of outstanding debts to the staff pension scheme. Income from our investments will continue to be difficult to predict, especially in the short term, but the pension debt is now clear so pressure on the funds has eased.

The journal income has bounced back and is again a net contributor our income. Subscriptions are down however and this is something we are trying to correct in the short term with new rates and in the long term by how we charge for what we deliver and by finding ways to encourage new membership. Our two main meetings, Furnace Solutions and the Annual Meeting are both helping

with this and have both had a good year. It is to be hoped that this year, our centenary year, will provide us with a much needed boost.

Though our costs continue to rise, the signs are now better that we can begin building for the future.

Alan Stephens

## ELECTION OF OFFICERS

Prof Russell Hand elected as President, Mr J Henderson was re-elected as Honorary Secretary. Mr Alan Stephens was elected as Honorary Treasurer.

## ELECTION TO FELLOWSHIP

The following members were elected to Fellowship of the Society:  
Akira Takada 14.10.15

## ELECTION TO FELLOW EMERITUS

## ELECTIONS TO HONORARY FELLOWSHIP

## ELECTIONS TO COUNCIL

B McMillan and WL Brookes for three years

## DEATHS

Deaths announced to Council during 2015

John Philip Hartley FSGT who had been a member since 1961  
Margaret Flower who had been a member 2009

## PUBLICATIONS

*Glass Technology*, Part A and *Physics and Chemistry of Glasses* Part B of the *European Journal of Glass Science and Technology* each appeared six times in 2015. Most issues arrived well within their publication month. Four *Glass Technology* papers and seven *Physics and Chemistry of Glasses* papers were a common number per issue. Two Open Access papers were published by SGT members, one in each journal, members pay less than the headline figure when publishing their research this way.

The on-line peer review system, Editorial Manager provided some support and the regional editors have worked hard to get the submissions quickly through to a decision. The same rigorous peer review is applied to all submissions to maintain high quality.

In 2015 Professor Russell Hand was the senior editor of the *European Journal of Glass Science and Technology* overseeing both *Part B* and *Part A*. In addition there are the regional editors: Dr Ulrich Roger (Germany), Dr Bo Jonson (Sweden), Professor Alicia Duran (Spain), Dr Alex Hannon (UK), Professor Marek Liska (Slovak Republic), Professor John Parker (UK), Professor L. Wondraczek (Germany), Professor Adrian Wright (UK) and Professor Yuanzheng Yue (Denmark).

Sara Lindley oversees the running of the Editorial Manager online submission and peer review system. She also takes manuscripts from Professor Hand to pre-proofing.

Mr David Moore, managing editor, makes up the editorial staff at the Society.

The Society's presence on the World Wide Web, [www.sgt.org](http://www.sgt.org), has benefited from the skills of Christine Brown and by Lisa Fearn. Ms Brown has ensured the site meets all regulations on security and safe use of customer financial data.

Members and journal subscribers can access the peer reviewed papers on the internet through Ingenta. This helps the Society offer a more flexible subscription for students and our more distant subscribers. The pay-per-view income from Ingenta has brought in new income as has other copyright royalties and rights offerings.

Two books, *Fundamentals of Inorganic Glasses* by Arun Varshneya and *Basic Optical Stress Measurement in Glasses* by H. W. McKenzie and R. J. Hand have been sold through the Amazon print on demand system branded as CreateSpace, this allows the books to be distributed in the major Amazon regions with next day delivery. Other books are being readied for publication on this platform, saving space holding stock and widening the distribution opportunities.

The first volume of John Hemsley's two volume *Glass in Engineering Science* series *Optical Birefringence in Glass* has been published by the author. The Society is selling it via the website and the author is distributing.

Trevor Gledhill's book *The Development of Glass Bottle Machines* was a short run publication that reached fruition in 2015, Ian Donald's *The Science and Technology of Inorganic Glasses and Glass-Ceramics* was complete at the end of 2015 but a printer error missed several colour pages so it was not saleable.

David Moore

## REPORTS FROM THE TECHNICAL COMMITTEES

### Analysis and Properties Committee

The Analysis and Properties committee met three times in 2015. Committee membership has been largely static over the year but towards the end of 2015 we sadly lost Margaret Flower, John Marley (retirement) and David Lever (changed responsibility within his sponsoring organisation) but also recently welcomed back Alan Reynolds. Much of the committees work effort has been directed towards the development of certified reference materials (CRM). Work completed on a high purity silica sand and a new low iron float glass material is currently in progress. Royalties to the Society from CRM sales via our partner The Bureau of Analysed Samples amounted to £6353.33 (including VAT) for 2015, a 35% increase on the previous year. New CRM development schemes are under consideration for 2016 including various feldspar derivatives (candidate materials available for use).

The committee has also dealt with a range of technical issues submitted to the Society in relation to calibration, statistical interpretation and the review of documents for inclusion within the Society journal. Presentations on topics of concern to the glass (and supply) industry have also been discussed, most recently the potential change to respirable silica limits in sand and lead levels in recycled glass.

*Stuart Jamieson*

### Basic Science and Technology Committee

In September 2015 Dr Richard Martin and Dr Jamieson Christie took over as chair and secretary of the BSTC. This coincided with Dr Emma Barney commencing her maternity leave. The BSTC would like to acknowledge Emma's fantastic contribution as chair and note that Emma still remains an active member of the BSTC.

The BSTC welcomed new members Professor Doris Möncke, Dr Gavin Mountjoy and Dr Anita Zeidler. Dr Vanessa Cutler and Dr Rudi Winter stood down from the committee. Again the committee would like to thank Vanessa and Rudi for their contributions.

The committee nominated Professor Delia Brauer for the 2015 Gottardi Award, and we are delighted that Delia was successful and won the Gottardi Award. Delia accepted the prize at the ICG conference in Bangkok in September 2015.

Dr Richard Martin has been nominated as SGT's 2016 candidate for the Gottardi Award.

Oldfield Award Winners this year were:

1st place 2015: Teresa Buttner, Friedrich-Alexander University: Analysis of Lithium containing Bioglass and comparison with 45S5 Hench Bioglass.  
2nd place 2015: Oliver Eckhardt, Otto Schott Institute of Materials Research: Synthesis of core-shell hybrid materials.  
3rd place 2015: Brian Sum, Imperial College: Synthesis of Poly(Butyl) Methacrylate (PBMA)/Silica Sol-gel Hybrids for Tissue Engineering Using Different PBMA Architectures.

The Annual Meeting, held in Cambridge, was well-attended. The Science Programme was busy and Guest speakers for the Symposium sessions included **Professor Alexis Clare**, Alfred University – *GlassArtEngineering; Unique Points of View Working Together*  
**Professor Jonathan Knight**, University of Bath – *Hollow-core optical fibres: reflections on tiny bits of glass*  
**Professor Animesh Jha**, University of Leeds – *Interaction of near-IR pulsed Lasers with Biomineral Gels for Enamel Restoration*  
**Professor Stephen Elliott**, University of Cambridge  
**Dr Matt Tucker**, Diamond Light Source -*XPDF and a step towards complex modelling*  
**Cate Watkinson**, Sunderland University- *From stained glass to solar. Glass, design and light*

At the 2015 *Glass Reflections* conference a session was dedicated to chalcogenide glasses which proved very popular.

*Richard Martin*

### Melting Technical Report

The MTC has changed frequency and timing of meetings to support the Furnace Solutions events. We now have a meeting a few weeks after the event for review and lessons learned. We now have 3 face-to-face meetings instead of 4 - but with a conference call in between. We now have another non-UK resident attendee and offer dial-in for all meetings so members do not have to travel to Sheffield.

At our October meeting I had the great honour of advising our Secretary, Alan Varney, that he was to receive the Society's 'Award for Service' - following

his 25 years in the role. We are hoping to present it at the Furnace Solutions Centenary as part of Conference/ESG on 8<sup>th</sup> September in Sheffield. At same October meeting I advised that in 12 months, due to work commitments and other SGT activities, I would not be seeking re-election in October 2016 and that we need nominations for my successor as Committee Chair.

### **10<sup>th</sup> Successful Furnace Solutions**

4<sup>th</sup> June saw the 10<sup>th</sup> Furnace Solutions [FS10] conference at Lucideon in Stoke on Trent organised by the Melting Technical Committee.

For the first time there were two open panel discussions with all the speakers present to field questions. Whilst some questions had been received in advance each session was full with lively debate. One of the more bizarre and humorous questions at the end of the day revolved around the historical use of large potatoes in the glass melting process? "YES" was the immediate reply from 3 of the older speakers "but you have to use a green stick!" Through the power of modern technology two students present found an on-line U-tube video showing the use of apples in Greece to improve mixing. The discussion continued at the evening social meal at Frankie and Benny's where one of our Antipodeans' advised that they had historically used carrots in amber glass. Thanks to the continuing generosity of Guardian Industries, *The Michael Garvey Award*, for the best paper of the day, was awarded to Joaquin de Diego Rincon of Praxair.

All papers from both this year's events were available to download shortly after the meeting. We had 51 and 79 attendees for the Training Day and Furnace Solutions respectively with visitors from Israel to Mexico. We believe that both days are some of the best value events in the Industry. We are able to keep the cost of attending to a minimum due to both the generous support of our many sponsors, and that Lucideon make no charge for the venue. The sponsors this year were BOC, Calumite, CelSian, DSF, Eclipse, FIC, Fives, Fosbel, Glass Technology Services, Global Combustion, Harbison Walker International, I.R.E, Praxair, PSR and Tecoglass/Zedtec in addition to *Glass Worldwide*, IOM<sup>3</sup>, *Glass International* with, of course, the hosts Lucideon.

Numbers attending were down on 2014 but we made a bigger surplus - due to increased sponsorship. We also purchased magazine racks (rather than hire) - these are now available for other SGT events.

For FS10 we had a commemorative tankard commissioned, but for the Centenary Events we are planning an 'SGT Centenary Ale' - with Beatson Clark provisionally looking to supply the bottles. Our intent is also to have a second edition of the '*Compendium*' available for download and/or CD in June 2016 - but much work is still to be done to achieve this. For our 4<sup>th</sup> 'Training Day', we have solicited feedback from the industry - who have requested "Energy Efficiency and the Environment" - both topics that are seen as topical - particularly with impending legislation.

On behalf of everyone on the Melting Technical Committee of the Society of Glass Technology we wish to thank our sponsors and the SGT staff and hope to see you at our hosts Lucideon in Stoke in June 2016, as well as in Sheffield in September 2016, for the SGT 100<sup>th</sup> celebrations!

*Neil Simpson*

### **Yorkshire Section**

A quiet year with events being cancelled due to lack of support. Our dinner dance was another success, 154 attended, with a photographer available which was an added extra that everyone seemed to enjoy.

*Christine Brown*  
*Yorkshire Section Secretary*

| <b>Monograph Sales</b>  | <b>2014</b> | <b>2015</b> |
|---|-------------|-------------|
| Glass Furnaces Design, Construction & Operation                   | 13          | 8           |
| Coloured Glasses  | 12          | 13          |
| Stones and Cords in Glass   | 0           | 3           |
| ESG Proceedings (Fundamentals of the Glass Manufacturing Process) | 0           | 0           |
| Topical Issues in Glass, Volume 1                                 | 0           | 0           |
| Refractories in the Glass Industry                                | 0           |             |
| Raw Materials for Glass Melting                                   | 3           | 2           |
| Topical Issues in Glass, volume 2                                 | 0           |             |
| Basic Optical Stress Measurement in glasses                       | 5           | 2           |
| Topical Issues in Glass, Volume 3                                 | 0           |             |
| Ceramics and Glass: A Basic Technology - Hardback                 | 1           | 0           |
| Ceramics and Glass: A Basic Technology - Paperback                | 1           | 1           |
| The Window Glass Makers of Saint Helens                           | 1           | 1           |
| Practising Stained Glass Safely                                   | 2           | 20          |
| Borates Proceedings 2   | 0           | 0           |
| Borates Proceedings 3   | 0           | 0           |
| The Art of Glass  | 0           | 1           |
| Bosc D'Antic Book on Glass Making                                 | 0           | 0           |
| Glass Blowing   | 0           | 0           |
| Old English Glass Houses  | 0           | 1           |
| Early 19th Century Glass Technology in Austria & Germany          | 1           | 0           |
| Fundamentals of Inorganic glasses                                 | 22          | 16          |
| Glass to Metal Seals  | 3           | 2           |
| Bontemps on glass making  | 2           | 1           |
| Chemical Technology of Glass Zschimmer                            | 61          | 4           |

### Analysis of Journal Contents by number of

pages (and number of particular item)

|  | <b>2014</b> | <b>2015</b> |
|--|-------------|-------------|
| <b><i>Glass Technology</i></b>                 |             |             |
| Proceedings/Features                           | 0(0)        | 0(0)        |
| News from the Marketplace                      | 41          | 40          |
| Conference Diary                               | 12          | 12          |
| Papers   | 198(28)     | 170(21)     |
| Communications                                 | 0           | 0           |
| Book Reviews                                   | 0           | 0           |
| Index  | 6           | 1           |
| Obituaries                                     | 0           | 1           |
| <b><i>Physics and Chemistry of Glasses</i></b> |             |             |
| Papers   | 271(32)     | 244(37)     |
| Conference Diary                               | 10          | 8           |
| Book Reviews                                   | 0           | 0           |
| Index  | 1           | 1           |
| Communications                                 | 0           | 0           |
| Editorial                                      | 0           | 0           |
| <b>Journal Sales</b>                           |             |             |
| Glass Technology                               | 128         | 118         |
| Physics & Chemistry of Glasses                 | 112         | 107         |

# List of Officers, Council, Administrative, Technical and Section Committees for the year 2015

## PRESIDENT

Prof Russell Hand FSGT

## HONORARY SECRETARY

J. Henderson FSGT, MIM

## HONORARY TREASURER

Alan Stephens

## VICE PRESIDENTS

A. Wright Hon FSGT5

M. Brew FSGT

W. L. Brookes FSGT retired May 2015

## COUNCILLORS

E. R. Barney FSGT

M. C. Brew FSGT

W. L. Brookes FSGT

R. J. Hand MA PhD, FSGT

A. Hannon FSGT

J. Henderson FSGT

R. Hulme FSGT

D. Martlew FSGT

B. W. McMillan FSGT

J. R Osborn FSGT

J. M. Parker FSGT

R. Penlington FSGT

K. A. Richardson FSGT

I. D. Robertson FSGT

A. Stephens

H. M. West FSGT

C. Windle FSGT

A. C. Wright FSGT

And the Chairmen of the Board of Fellows, Technical Committees and Local Section Executive Committees ex officio.

## PAST PRESIDENTS

H. M. West FSGT

D. Martlew BSc MSc PhD MRSC FIM CChem FSGT

J. M. Parker

A. C. Wright BSc, PhD, PGCE DSc, FSGT

R. Penlington FSGT

## MANAGING EDITOR

D. Moore BSc (Eng)

## EDITOR "GLASS TECHNOLOGY"

*European Journal of Glass Science & Technology Part A*

R. J. Hand

## ADMINISTRATION STAFF

C. Brown

S. Lindley

L. Fearn

L. Ashton

## AUDITORS

Holmes Widlake, Sheffield

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## YORKSHIRE SECTION

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C. Brown (Secretary)

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M. Flower (Chairman) August 2015

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N. J. Johnson

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I. D. Robertson

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R. Penlington

A. Stephens

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D. Boardman  
M. Flower until August 2015  
J. Henderson  
S. Jamieson (Chairman)  
N. J. Johnson  
S. Jones  
J. E. Marley  
T. Moran  
S. Olson  
J. R. Osborn  
J. A. Reynolds  
R. M. Sales  
H. M. West

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J. Henderson  
D. B. Hollis  
C. M. Jackson  
J. Knowles  
R. Martin (Chairman from Sept 2015)  
M. O'Donnell  
J. M. Parker  
R. Winter  
A. Wright

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G. Laird  
N. Longshaw  
M. Marshall  
P. M. Myers  
J. Naughton  
J. R. Osborn  
J. M. Parker  
J. A. Reynolds  
C. M. Robinson  
I. L. Shoveller  
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