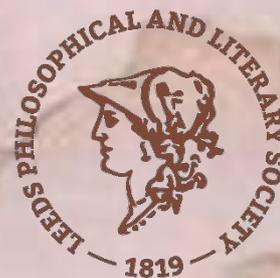


*Annual  
Review  
2019*



Bicentenary Year



The front cover is from a photograph of the print of the 1915 drawing by Charles Ginner of the original buildings of the University; the framed print was presented by the University's Vice-Chancellor, Sir Alan Langlands, as a gift to mark the Society's Bicentenary.



**Leeds Philosophical  
and Literary Society  
Annual Report and Review  
2019**

The 199<sup>th</sup> Annual Report of the Council  
at the close of the session 2018-19

*presented to the Annual Meeting held on  
5<sup>th</sup> December 2019*

and

Reviews of events and of grants awarded in 2019

THE LEEDS PHILOSOPHICAL AND LITERARY SOCIETY, founded in 1819, has played an important part in the cultural life of Leeds and the region. In the nineteenth century it was in the forefront of the intellectual life of the city, and established an important museum in its own premises in Park Row. The museum collection became the foundation of today's City Museum when in 1921 the Society transferred the building and its contents to the Corporation of Leeds, at the same time reconstituting itself as a charitable limited company, a status it still enjoys today.

Following bomb damage to the Park Row building in the Second World War, both Museum and Society moved to the City Museum building on The Headrow, where the Society continued to have its offices until the museum closed in 1998. The new Leeds City Museum, which opened in 2008, is now once again the home of the Society's office. In 1936 the Society donated its library to the Brotherton Library of the University of Leeds, where it is available for consultation. Its archives are also housed there.

The official charitable purpose of the Leeds Philosophical and Literary Society is (as newly defined in 1997) "To promote the advancement of science, literature and the arts in the City of Leeds and elsewhere, and to hold, give or provide for meetings, lectures, classes, and entertainments of a scientific, literary or artistic nature". The Society is keenly interested in cultural developments in Leeds and the region, and is constantly looking for new ways to further its aims.

*Application forms may be obtained from the Hon Treasurer and are also to be found on the Society's website.*

**Website: [www.leedsphilandlit.org.uk](http://www.leedsphilandlit.org.uk)**

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ISSN 1746-7454



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**THE LEEDS PHILOSOPHICAL AND LITERARY SOCIETY LIMITED  
LEGAL AND ADMINISTRATIVE INFORMATION**

**Constitution**                      Company limited by guarantee  
Registered number 177204  
Registered charity number 224084

**Governing document**        Memorandum and articles adopted 2 July 1997

**Members of Council (who are trustees for charity law and directors for company law)**

**President**                            C J Hatton BSc, PhD, FInstP  
**Vice-president**                 G E Blair BSc, PhD  
**Treasurer**                         C M Taylor BSc(Eng), MSc, PhD, DEng, FEng, FIMechE, FCGI  
**Secretary**                         J E Lydon BSc, PhD  
**Other Council members**        D I Bower MA, DPhil, MInstP  
Eveleigh Bradford BA  
R J Bushby BSc, DPhil  
Janet Douglas BA, MA  
P J Evennett BSc, PhD, Hon FRMS (retired 6 December 2018)  
F J Finlay BA, PGCE, PhD (resigned September 2019)  
K T Hall BA, PhD, MA  
R Jakeways BSc, PhD, MInstP  
Cllr Elizabeth Nash  
A C T North BSc, PhD, FInstP  
I W Smith HonFLeedsCM  
Mollie Temple CBE, BA, MA, DUniv, DEd

**Registered Office**                c/o Leeds City Museum  
Cookridge Street  
Leeds LS2 8BH

**Website**                            [www.leedsphilandlit.org.uk](http://www.leedsphilandlit.org.uk)

**Bankers**                            Lloyds Bank  
65 - 68 Briggate  
Leeds LS1 6LH

**Investment advisors**            Investec Wealth and Investment  
2 Gresham Street  
London EC2V 7QP

**Accountant**                        Katharine Widdowson FCA  
406 Otley Road  
Leeds LS16 8AD

## THE LEEDS PHILOSOPHICAL AND LITERARY SOCIETY 199<sup>TH</sup> ANNUAL REPORT FOR 2018-2019

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The Council presents its report and financial statements for the year ended 30 September 2019. The financial statements comply with current statutory requirements and with the requirements of the Society's memorandum and articles.

### CONSTITUTION

The Society is a company limited by guarantee governed by its memorandum and articles of association. Membership is open to anyone on payment of an annual subscription which is due on 1 October each year. Only those members who have paid or have been elected to Honorary Membership are entitled to vote at the AGM. In the event of the Society being wound up, every person who is a member, or who has been a member within one year, is liable to contribute to the debts and liabilities of the Society a sum not exceeding £10.

### STRUCTURE, GOVERNANCE AND MANAGEMENT

The members of the Council are considered to be both directors for Companies Act purposes and trustees for Charities Act purposes. One third of the members of Council retire by rotation at each Annual General Meeting (normally held in December), when appointments or reappointments are made. The Council has powers to co-opt to its membership. *Membership of the Council takes into account the need to have members with expertise to cover the variety of activities of the Society.* All members of the Society are notified prior to the AGM of the names of the Council members who are due to retire and are invited to submit nominations. At *the AGM on 6 December 2018* Professor G E Blair and Mr I W Smith were elected to Council; Mrs E Bradford, Ms J Douglas, Professor C Taylor and Mrs M Temple were re-elected.

The Officers of the Society are elected by and from the members of Council at the first meeting of Council following the Annual General Meeting; at the Council meeting on 10 January 2019, Dr Hatton was re-elected as President, Dr Lydon as Secretary, Professor Taylor as Treasurer, and Professor Blair was elected as Vice-President.

Council met on six occasions during 2018-2019 in the Civic Hall. Parts of its business were delegated to the following committees: Grants, Events, Exhibition and Museums, chaired respectively by Dr Hatton, Dr Lydon, Mrs Temple and Dr Hatton. The committees are required to act in accordance with the Society's Aims and Policies, and their recommendations are put to the Council for its approval.

Mr Norman Madill has continued as Assistant Secretary, managing the Society's links with its members and other necessary administrative matters. Mrs Sue Clarke, as the newly appointed Assistant Treasurer, administered the day-to-day financial transactions of the Society including applications for membership.

### MEMBERSHIP

During the course of the 2018/19 year, the Society lost 12 members (through death & resignations) and gained 12 new members; at the end of September membership totalled 148 including an associate member.

## THE SOCIETY'S AIMS AND ACTIVITIES

### **General**

The Society aims to promote the advancement of science, literature and the arts in the city of Leeds and its immediate area. In furtherance of this aim, which Council believes to be of benefit to the public in this area, the Council's policy has been to disburse its income as follows by:

- providing a programme of free public lectures relevant to the Society's aims
- supporting the work of the City of Leeds Museums & Galleries
- supporting other activities in Leeds of a scientific, literary or artistic nature
- providing grants for purposes of research, publication, or artistic performance

### ***Grant-making policy***

In making grants to promote the advancement of the Society's aims, the Council places particular emphasis on (but does not limit its grants to) the support of activities which directly benefit the citizens of Leeds or assist those engaged in academic and scholarly activities relating to Leeds and its immediate area. It does not give grants in general support of students on taught courses. The value of grants is normally in the range £100 to £2,000, although this limit may be exceeded in special circumstances. The Council is keen to support new endeavours by the award of 'pump-priming' grants.

### ***The Society's archives***

The Society's archives are held in the Special Collections section of the Brotherton Library, University of Leeds, where they are available for public consultation.

### ***The Society's Bicentenary***

The Calendar year 2019 marked the Society's bicentenary and a series of events to celebrate this achievement took place. These are listed below and reports of those taking place this calendar year will be included in the 2019 Annual Review.

**Exhibition:** Three separate, sequential displays illustrating (i) the early years of the Society (ii) the Society's contribution to Science during its 200-year history and (iii) the corresponding contribution to the Arts, took place in the foyer of the Leeds Library.

**Martin and Synge Plaque:** A plaque was placed on the gatepost of the original WIRA building on Headingley Lane to commemorate the scientific achievements of these two Nobel laureates. The unveiling took place on 11 June.

**Conference:** A day conference to explore the origins of the Phil. and Lit. movement and the early history of the Society took place in the Leeds City Museum on 19 October.

**Dinner:** A dinner celebrating the Society's history and its links with the city, the universities and the various societies it had spawned took place on 1 November.

## ACHIEVEMENTS AND PERFORMANCE

### *Events*

The regular monthly events covered a wide range of topics as usual and were well supported both by Society members, guests and members of the public. The lectures from January to May took place in the afternoon in the City Museum. The other meetings were held at University House. Events marked \* were related to the bicentenary.

The following events took place:

- Ryan Matthew. *Surgeons that Manhandle Pipettes*.
- Priestley Lecture. Joe Williams. *Wilson Armistead (1819-1868) - a story of Religion and Activism in Leeds*.
- Annual General Meeting and dinner at University House. After-dinner entertainment: The Leeds Waits.
- Penny Wainwright. *The Chas. F Thackray Company*.
- Annual Science Fair in the Leeds City Museum.
- Steven Burt. *Leeds at the birth of the LPLS\**.
- Dr Rebecca Wade. *From the Leeds Philosophical and Literary Society to the Leeds Sculpture Collections: Portraits, Patrons and Presidents\**.
- Col. Alan Roberts, OBE. *Repairing People: Innovations and Possibilities in Medicine*.
- Martin & Syngé plaque unveiling, Headingley Lane\*.
- Kersten Hall. *"In Praise of Wool": Archer Martin, Richard Syngé & the blobs that won Leeds a Nobel Prize\**.
- Summer Outing. A visit to Sheffield Assay Office and Kelham Island Museum.
- Professor Alan Watson, FRS. *The Growth of Large Collaborations in Science\**.
- LPLS Bicentenary Conference in the Leeds City Museum\*.

### *Grants*

During the year the following grants were awarded by the Society:

- Mrs Sylvia Craven, £600 to support the design and layout of a book describing the history of Leeds Teaching Hospitals medical and surgical specialities over the last 250 years.
- Philip Radcliffe, £500 to support '150 Singing Skills', a 10-week technical skills development programme to improve the skills of new, often younger recruits; part of the Leeds Philharmonic Chorus 150th Anniversary Appeal.
- Carry Franklin, £850 towards the installation of 10 Leeds Little Free Libraries in areas of deprivation across the city.
- Tajpal Rathore, £500 to support 'Whoever heard of a black artist?', an innovative form of participatory theatre exploring the historical-political context of black art.
- Clare Brown on behalf of Leeds Museums, £5000 towards the articulation of Leeds's Long-finned Pilot Whale.
- Liz Jeffery, £500 to support Headingley Festival of Ideas

- Dr Rebecca Wade on behalf of Leeds Art Fund, £500 to support the restoration and reinstatement of the missing figure of 'Industry' to the Victoria Memorial, Woodhouse Moor on the condition that the appeal to other agencies is successful.
- Peter Spafford, £400 to support a performance piece based on the story of Antony Gormley's discarded Brick Man statue.
- Katie Pearce on behalf of West Yorkshire Symphony Orchestra, £1000 to support a semi-staged production of *Cavalleria Rusticana* at Sunny Bank Mills.
- Dr Stephen Muir, £800 to support the orchestral premiere of Rudi Leavor's Cantata 'Enosh' at Left Bank Leeds.
- Prof. Sheena Radford, £750 to support the public lecture by Nobel Laureate, Richard Henderson in Leeds, March 2020
- David Ward, £600 to support the Leeds Opera Festival 2019
- Dr Bryan White, £300 towards the publication costs of a festschrift celebrating the work of Peter Holman MBE.
- Matthew Bellwood on behalf of Moveable Feast Productions Ltd, £450 to print a picture book about the Drayman statue in Dortmund Square - a story by children from Beechwood Primary School in Seacroft.

### ***The Leeds City Museum***

We have continued to enjoy a good relationship with the staff of the Museums, to whom we are most grateful for their collaboration. The Museums Committee, comprising representatives from the Council and the Leeds Museums Service, has met once in the course of the year and provides a valuable opportunity to discuss collaboration in the planning of events and the best use of grants for supporting the museum.

### **FINANCIAL REVIEW**

The Society's budget aims to fund all its events (lectures, dinners, trips etc) and grants from its income, the two major streams of which are the dividend income and subscriptions. The events expenditure is substantially offset by income. This budget omits the payment made during the year to the investment advisers which means that annually overall expenditure often exceeds income. The Society's financial position has been monitored regularly by the Council.

Dividends from investments within the financial year amounted to £14,459 and subscriptions and donations (including gift aid refund) to £4,367. The total value of the Society's investment portfolio (investments and cash held) increased slightly this year and now stands at £486,108, an increase of 3.1%. There were fifteen grants awarded during the financial year though one of these was in due course returned and one remains unpaid, but extant. The total grants sum paid was £12,250, this including a transfer of £2,650 from the Bicentennial Fund to supplement the agreed annual budget. The Bicentenary Fund stood at £7,100 at the beginning of the financial year and the spend during the year was £4,945.

### ***Reserves policy***

The Society's reserves comprise an unrestricted fund derived from past benefactions and its annual subscriptions, including the proceeds from the sale of the Philosophical Hall to Leeds City Council in 1921. The fund increased in value over the years as income exceeded expenditure

and the value of investments increased. Since the Society adopted its new constitution in 1997, Council's aim in the medium term has been to fund its activities as described above and to sustain/increase the capital value of its investments whilst using all the annual dividend income to promote the in-year activities. The Society's income and expenditure do, however, vary from year to year depending on several factors. The Council therefore considers it prudent to hold modest liquid reserves with Lloyds Bank.

### ***Investment policy***

There are no restrictions in the Society's Memorandum and Articles on the Society's power to invest. The Council's investment objectives are to maintain a level of dividend income sufficient to contribute substantially to the Society's activities, while promoting the capital value of its invested assets over the long term. To this end, it is the Society's normal practice to reinvest realised gains on its assets. The Council has delegated the management of its investments on a discretionary basis to Investec Wealth and Investment.

### ***Risk management***

- 1) Income: The investment managers pursue an active investment policy to generate income on the Society's behalf. The outcomes are regularly reviewed by the Trustees.
- 2) Expenditure: Expenditure on individual events and grants usually represents a small part of total expenditure and risks are minimised by standard procedures for authorisation of all financial transactions. The potential risks at the Society's events are considered as part of the planning for them, and appropriate steps are taken, including the arrangement of Public Liability insurance as necessary.
- 3) The quality of the Society's events and the outcome of grants that have been awarded are reviewed by the Trustees, and details published in the Annual Review, so as to ensure that all the Society's activities are of a high standard consonant with its Aims.

The Society has taken advantage of the small companies' exemption in preparing this Directors' Report.

*Approved by the members of the Council on 7 November 2019 and signed on their behalf by  
C J Hatton (President) and J E Lydon (Secretary)*



**THE LEEDS PHILOSOPHICAL AND LITERARY SOCIETY LIMITED**  
**STATEMENT OF FINANCIAL ACTIVITIES INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT**  
**FOR THE YEAR ENDED 30 SEPTEMBER 2019**

	Note	2019	2019	2019	2018	2018	2018
		General Fund	Designated Fund	Total Funds	General Fund	Designated Fund	Total Funds
		£	£	£	£	£	£
<b>Income from:</b>							
Subscriptions and donations		4,367		4,367	4,331		4,331
Investments		14,579		14,579	15,716		15,716
Charitable activities	2	2,232		2,232	4,342		4,342
<b>Total income</b>		<b>21,178</b>	<b>-</b>	<b>21,178</b>	<b>24,389</b>	<b>-</b>	<b>24,389</b>
<b>Expenditure on:</b>							
Investment management fees		4,480		4,480	4,486		4,486
Charitable activities	4	20,829	4,945	25,774	20,220		20,220
<b>Total expenditure</b>		<b>25,309</b>	<b>4,945</b>	<b>30,254</b>	<b>24,706</b>	<b>-</b>	<b>24,706</b>
<b>Gains/(Losses) on investment assets:</b>							
Realised	6	2,413		2,413	(3,388)		(3,388)
Unrealised	6	16,550		16,550	11,531		11,531
Total gains		18,963	-	18,963	8,143	-	8,143
<b>Net income for the year</b>		<b>14,832</b>	<b>(4,945)</b>	<b>9,887</b>	<b>7,826</b>	<b>-</b>	<b>7,826</b>
<b>Transfers between funds</b>	9	-	-	-	(1,800)	1,800	-
<b>Net movement in funds</b>		<b>14,832</b>	<b>(4,945)</b>	<b>9,887</b>	<b>6,026</b>	<b>1,800</b>	<b>7,826</b>
<b>Reconciliation of funds</b>							
Fund balances brought forward		497,500	7,100	504,600	491,474	5,300	496,774
<b>Fund balances carried forward</b>		<b>512,332</b>	<b>2,155</b>	<b>514,487</b>	<b>497,500</b>	<b>7,100</b>	<b>504,600</b>

The Society had no recognised gains or losses other than those shown above.

The notes on pages 12 to 17 form part of these accounts.

**BALANCE SHEET**  
**30 SEPTEMBER 2019**

	Note	2019 Total funds		2018 Total funds	
		£	£	£	£
<b>Fixed assets</b>					
Intangible	5		4,545		5,843
Investments	6		486,108		471,513
<b>Current assets</b>					
Debtors	7	1,314		2,086	
Short term deposits		-		19,745	
Cash at bank and in hand		25,757		7,714	
			<u>27,071</u>		<u>29,545</u>
Creditors: amounts falling due within one year	8	(3,237)		(2,301)	
<b>Net current assets</b>			<u>23,834</u>		<u>27,244</u>
<b>Total net assets</b>			<u>514,487</u>		<u>504,600</u>
<b>Funds</b>					
General Fund - unrestricted		512,332		497,500	
Designated Fund - Bicentenary Grant Fund	9	2,155		7,100	
<b>Total charity funds</b>			<u>514,487</u>		<u>504,600</u>

For the year ending 30 September 2019 the company was entitled to exemption from audit under section 477 of the Companies Act 2006 relating to small companies. The members have not required the company to obtain an audit of its accounts in accordance with section 476 of the Companies Act 2006.

**Directors' responsibilities:**

The directors acknowledge their responsibility for complying with the requirements of the Companies Act 2006 with respect to accounting records and for the preparation of the accounts.

These accounts have been prepared in accordance with the provisions applicable to companies subject to the small companies regime.

Approved by the Members of Council on 7 November 2019 and signed on their behalf by:

C J Hatton

President

C M Taylor

Treasurer

## NOTES TO THE ACCOUNTS FOR THE YEAR ENDED 30 SEPTEMBER 2019

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### 1 Accounting policies

The principal accounting policies adopted in the preparation of the financial statements are as follows:

#### *a) Basis of preparation*

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with The Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2015) - (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.

The Society meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note.

#### *b) Fund accounting*

Unrestricted funds are available to spend on activities that further any of the purposes of the Society. Designated funds are unrestricted funds which the trustees have decided at their discretion to set aside to use for a specific purpose. Restricted funds are donations which the donor has specified are to be used solely for a particular activity by the Society.

#### *c) Income*

Income is recognised when the Society has entitlement to the funds, any performance conditions relating to the item of income have been met, it is probable that the income will be received and the amount can be measured reliably. Subscriptions and donations are recognised when receivable. Investment income is included when it is receivable, and includes any recoverable income tax.

#### *d) Expenditure*

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably. All expenditure is accounted for on an accruals basis. Expenditure on charitable activities is set out in the notes to the accounts.

#### *e) Tangible and intangible fixed assets*

Tangible and intangible fixed assets are initially recognised at their transaction value and depreciated from the date they come into use over their estimated useful life.

Website - straight line over 5 years

#### *f) Fixed assets investments*

Investments are a form of basic financial instrument and are initially recognised at their transaction value and subsequently measured at their fair value as at the balance sheet date using the closing market price. The Statement of Financial Activities includes the net gains and losses arising on revaluation and disposals throughout the year.

All gains and losses are taken to the Statement of Financial Activities as they arise. Realised gains and losses are calculated as the difference between sales proceeds and the opening carrying value or the purchase value if acquired during the year. Unrealised gains and losses are calculated as the difference between the fair value at the year end and the carrying value. Realised and unrealised gains and losses are combined in the Statement of Financial Activities.

**NOTES TO THE ACCOUNTS (continued)**  
**FOR THE YEAR ENDED 30 SEPTEMBER 2019**

**g) Debtors**

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid. Accrued income and tax recoverable is included at the best estimate of the amount receivable at the balance sheet date.

**h) Cash at bank and in hand and short term deposits**

Cash at bank and cash in hand includes cash and short term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

**i) Creditors**

Creditors are recognised where the Society has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party, and the amount due to settle the obligation can be measured or estimated reliably. Creditors are normally recognised at their settlement amount. Grants payable are recognised when the application has been approved, the recipient has been told of that approval and if applicable has accepted the terms related to the grant offered.

	2019 £	2018 £
<b>2 Income from charitable activities</b>		
Events and lectures	2,232	4,283
Publication sales	-	59
	2,232	4,342

**3 Analysis of staff costs, trustee remuneration and expenses and the cost of key management personnel**

There were no employees of the charity during the year or the previous year.

The key management personnel are the trustees. No remuneration was paid to any trustee during the year or the previous year. No travel expenses were reimbursed to trustees (2018: £60). On occasion a trustee may act as agent for the Society, make purchases on its behalf and be reimbursed for this expenditure, eg payment for stationery. Such expenditure is not related to the services provided by the trustees so is not disclosed.

The assistant secretary and assistant treasurer received honoraria as disclosed in note 4.

	2019		2018
	General £	Bicentenary £	£
<b>4 Expenditure on charitable activities</b>			
<b>Grant making</b>			
Projects or organisations (10 grants; 2018: 8 grants)	5,800		6,900
Individuals (2 grants; 2018: 4 grant)	1,200		2,700
Leeds City Council (1 grant; 2018: 2 grants)	2,350	2,650	900
University of Leeds (1 grant. 2018: grant refund)	750		(500)
	10,100	2,650	10,000

**NOTES TO THE ACCOUNTS (continued)**  
**FOR THE YEAR ENDED 30 SEPTEMBER 2019**

	2019		2018
	General	Bicentenary	
	£	£	£
<b>4 Expenditure on charitable activities (continued)</b>			
<i>Events and lectures</i>			
Events and lectures	2,810	315	5,242
<i>Publications</i>			
ISBNs for future publications	-	35	-
Purchase of publications	-	-	50
	-	35	50
<i>Other charitable activities</i>			
Science Fair banner	-	99	133
Martin & Syngé - Blue plaque and reception	-	626	-
Exhibition to mark Bicentenary	-	313	-
Publicity for Bicentenary events	-	453	-
	-	1,491	133
<i>Support costs</i>			
Annual Review 2017	286		286
Membership leaflets	-	272	-
Promotional pens	-	182	-
Postage and stationery	515		510
Insurance	459		461
Accountancy	670		660
Honoraria for assistant secretary and assistant treasurer	4,000		2,000
Website hosting and maintenance	678		156
Amortisation of website cost	1,298		649
Other expenses	13		73
	7,919	454	4,795
<b>Total expenditure on charitable activities</b>	<b>20,829</b>	<b>4,945</b>	<b>20,220</b>

The grant recipients are listed in the Annual Report for the year.

<b>5 Intangible fixed assets</b>	Website £
Cost	
At 1 October 2018 and at 30 September 2019	6,492
Amortisation	
At 1 October 2018	649
Charge for the year	1,298
At 30 September 2019	1,947
Net book value	
At 1 October 2018	5,843
At 30 September 2019	4,545

**NOTES TO THE ACCOUNTS (continued)**  
**FOR THE YEAR ENDED 30 SEPTEMBER 2019**

**6 Fixed asset investments**

	Listed Investments £	Cash for investment £	Total 2019 £	Total 2018 £
Market value at 1 October 2018	466,937	4,576	471,513	466,917
Less:				
Disposals at opening market value	(60,940)	-	(60,940)	(138,730)
Investment management fees	-	(4,445)	(4,445)	(4,475)
Add:				
Acquisitions at cost	33,802	-	33,802	143,513
Cash reinvested	-	29,628	29,628	(7,243)
Net gains on revaluation	16,550	-	16,550	11,531
Market value at 30 September 2019	456,349	29,759	486,108	471,513
Historical cost at 30 September 2019	390,551	29,759	420,310	404,471
Disposals:		£		£
Proceeds		63,353		135,342
Book value at 1 October 2018		(60,940)		(138,730)
Realised gain / (loss)		2,413		(3,388)

All fixed asset investments are held in the UK, in nominee accounts by the investment managers. Details of the investment portfolio are as follows:

	2019 £	2018 £
Unit and investment trusts holding UK and non-UK equities	320,620	339,683
Gilts, bonds and fixed interest stocks	135,729	127,254
Cash held by investment managers	29,759	4,576
	486,108	471,513

**Material investments worth more than 5% of portfolio**

The portfolio includes 6 (2018: 6) unit or investment trusts worth between 5% and 8% of the total portfolio value.

	2019 £	2018 £
<b>7 Debtors</b>		
Investment income	1,082	1,414
Prepaid expenses	232	672
	1,314	2,086

**NOTES TO THE ACCOUNTS (continued)**  
**FOR THE YEAR ENDED 30 SEPTEMBER 2019**

	2019 £	2018 £
<b>8 Creditors: amounts falling due within one year</b>		
Grants approved but not yet paid	500	-
Accrued expenses	2,737	2,301
	<u>3,237</u>	<u>2,301</u>

<b>9 Designated Fund</b>	At 1 Oct 2018 £	Transfer in £	Payments £	At 30 Sept 2019 £
Current year				
Bicentenary Grants Fund	7,100	-	(4,945)	2,155

<b>Designated fund - previous year</b>	At 1 Oct 2017 £	Transfer in £	Payments £	At 30 Sept 2018 £
Bicentenary Grants Fund	5,300	1,800	-	7,100

Council has set aside funds to support the promotion of activities associated with the bicentenary year of the Society in 2019.

**10 Analysis of net assets between funds at the year end**

	<b>General £</b>	<b>Designated £</b>	<b>Total Funds £</b>
<b>Analysis of net assets between funds</b>			
Intangible assets	4,545	-	4,545
Investments	486,108	-	486,108
Net current assets	21,679	2,155	23,834
<b>Total net assets</b>	<u>512,332</u>	<u>2,155</u>	<u>514,487</u>

	<b>General £</b>	<b>Designated £</b>	<b>Total Funds £</b>
<b>Analysis of net assets between funds - previous year</b>			
Intangible assets	5,843	-	5,843
Investments	471,513	-	471,513
Net current assets	20,144	7,100	27,244
<b>Total net assets</b>	<u>497,500</u>	<u>7,100</u>	<u>504,600</u>

**STATEMENT OF CASH FLOWS  
FOR THE YEAR ENDED 30 SEPTEMBER 2018**

	2018	2017
	Total Funds £	Total Funds £
<b>Cash flows from operating activities:</b>		
<i>Net cash provided by (used in) operating activities</i>	(16,694)	(20,139)
<b>Cash flows from investing activities:</b>		
Dividends and interest from investments	15,716	14,489
Proceeds from the sale of investments	135,342	169,405
Purchase of investments	(131,795)	(165,758)
Purchase of fixed assets	(1,623)	(4,869)
<i>Net cash provided by (used in) investing activities</i>	17,640	13,267
<i>Change in cash and cash equivalents in the year</i>	946	(6,872)
<b>Cash and cash equivalents at the beginning of the year</b>	26,513	33,385
<b>Cash and cash equivalents at the end of the year</b>	27,459	26,513
<b>Reconciliation of net income/ (expenditure) to net cash flow from operating activities</b>		
	2018	2017
	Total Funds £	Total Funds £
<i>Net income/ (expenditure) for the year as per the statement of financial activities</i>	7,826	26,013
<b>Adjustments for:</b>		
(Gains)/ losses on investments	(8,143)	(26,695)
Dividends and interest from investments	(15,716)	(14,489)
Amortisation of intangible asset	649	-
(Increase)/ Decrease in debtors	(1,331)	1,012
Increase/ (Decrease) in creditors	21	(5,980)
<i>Net cash provided by (used in) operating activities</i>	(16,694)	(20,139)
<b>Analysis of cash and cash equivalents</b>		
	2018	2017
	£	£
Cash at bank and in hand	7,714	6,841
Short term deposits	19,745	19,672
<b>Total cash and cash equivalents</b>	27,459	26,513

## The year's finances at a glance

We are required by law to set out our finances in the form given in the preceding pages. It may, however, be helpful to set the Society's finances during the financial year in a different context. The Society sets a broad budgetary aim of funding its grants, events and administration from subscription and dividend income during any financial year. To this end a budget is drawn up and approved by Council to attempt to achieve a balance between income and expenditure determined on a receipts and payments basis for the financial year, with a modest surplus. The pie charts for income and expenditure during the 2018-19 financial year for this budget are presented below. The data is based upon the excel spreadsheet cashbook used by the Society to record its income and expenditure and differs in a few, insignificant, regards from the formal presentation of the accounts. Note that the expenditure shown in the chart omits the Investment Management fee, which has been subtracted directly from the investment capital, as in other recent years.

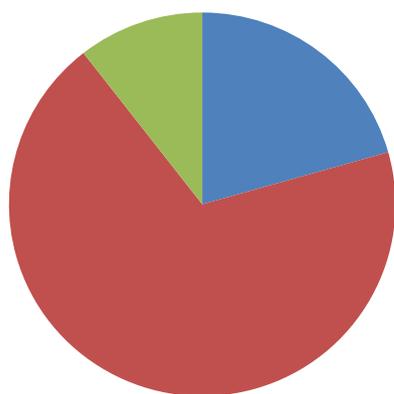
Dividends within the financial year amounted to some 69% of the income, and subscriptions (including gift aid) 21%. The difference between the events income and expenditure is account for by hospitality extended to guests.

In 2018-19 fifteen grants were awarded to outside bodies, though one of these was returned and one remains to be paid. The grants paid totaled £12,250. The Bicentenary Fund (termed the Designated Fund in the accounts) stood at £7,100 at the beginning of the financial year, this sum having been established by setting aside funds whilst running a budget designed to be in balance. This year's expenditure therefore exceeds income by a not inconsiderable sum as the expenditure from the Bicentenary Fund amounted to £4,945, representing 19% of total expenditure.

Grant payments represented 46% of expenditure and the cost of public lectures/the Science Fair 1.9%. Administration costs totaling 21% of expenditure include the Assistant Secretary's honorarium, the Assistant Treasurer's honorarium (a new additional cost), the accountant's fee, stationery, photocopying, telephoning, postage and printing. Insurance and website maintenance costs were 2.7% of the total expenditure.

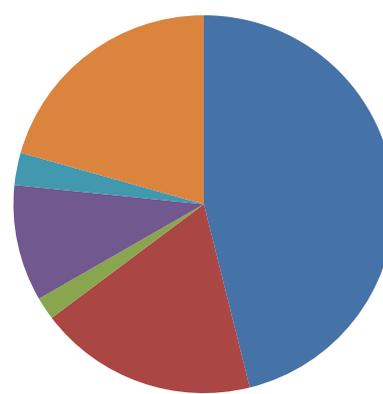
**Chris Taylor, Treasurer**

### Income (£21,178)



- Subscriptions (includes Gift Aid refund) (£4,367)
- Dividends (£14,579)
- Events (Dinners/Summer Outing) (£2,232)

### Expenditure (£26,566)



- Grants (£12,250)
- Bicentennial Fund (£4,945)
- Lectures, Science Fair (£515)
- Events (£2,646)
- Insurance/Web Maintenance (£736)
- Administration (£5,474)

## Presidents

*(since the foundation of the Society)*

1820-26	John Marshall	1922-24	Arthur J Grant, MA
1826-28	Revd W H Bathurst, MA	1924-26	Walter Garstang, MA, DSc, FZS
1828-31	Michael Thomas Sadler, MP	1926-28	Edwin Hawkesworth
1831-33	William Hey	1928-30	F W Branson, FIC
1833-35	James Williamson, MD	1930-32	E O Dodgson
1835-37	Revd Joseph Holmes, MA	1932-34	A Gilligan, DSc, FGS
1837-40	Revd Richard Winter Hamilton	1934-36	R Whiddington, MA, DSc, FRS
1840-42	Adam Hunter, MD	1936-39	Hugh R Lupton MC, MA
1842-45	John Hope Shaw	1939-46	W M Edwards, MC, MA
1845-50	Revd William Sinclair, MA	1946-48	E A Spaul, DSc, PhD
1850-51	William West, FRS	1948-50	W L Andrews
1851-54	Revd Charles Wicksteed, BD	1950-52	J N Tetley, DSO, LLD
1854-57	John Hope Shaw	1952-54	Terry Thomas, MA, LLD, BSc, PhD
1857-58	James Garth Marshall, FGS	1954-56	H C Versey, DSc, FGS
1858-59	Revd W F Hook, DD	1956-58	H S Vick, JP
1859-61	Revd Alfred Barry, MA	1958-60	H Orton, MA, BLitt
1861-63	Thomas Pridgin Teale, FRS	1960-62	Sir George Martin, LLD, JP
1863-66	Revd Thomas Hincks, BA	1962-64	E J Wood, MA
1866-68	Charles Chadwick, MD	1964-66	R D Preston, DSc, FInst P, FRS
1868-72	John Deakin Heaton, MD	1966-68	J le Patourel, MA, DPhil
1872-74	Revd Canon Woodford, DD	1968-70	G P Meredith, MSc, MEd, PhD
1874-76	J I Ikin, FRCS	1970-72	J G Wilson, MA, PhD, FInst P
1876-78	Revd J H McCheane, MA	1972-74	J Taylor, MA
1878-81	T Clifford Allbutt, MD, FRS	1974-76	H Henson, DSc, PhD, FRES
1881-83	Revd John Gott, DD	1976-78	P R J Burch, MA, PhD
1883-85	J E Eddison, MD	1978-81	R Reed, MSc, PhD
1885-86	Edward Atkinson, FLS	1981-83	Lord Marshall of Leeds, MA, LIB
1886-89	Thomas Marshall, MA	1983-85	B R Hartley, MA, FSA
1889-92	Thomas Pridgin Teale, MA, FRS	1985-87	D Cox, BA, ALA
1892-94	Revd J H D Matthews, MA	1987-89	B Colville, MB, BS, FRCGP
1894-96	Revd Charles Hargrove, MA	1989-91	I S Moxon, MA, BA
1896-98	Edmund Wilson, FSA	1991-93	R F M Byrn, MA, PhD
1898-00	Nathan Bodington, MA, LittD	1993-95	Mrs J E Mortimer, BA
1900-02	J H Wicksteed, President InstME	1995-97	A C Chadwick, BSc, PhD, DSc, CBiol, FIBiol, FRGS
1902-04	Arthur Smithells, BSc, FRS	1997-99	O S Pickering, BA, BPhil, PhD, DipLib
1904-06	J E Eddison, MD	1999-03	P J Evennett, BSc, PhD, Hon FRMS
1906-09	E Kitson Clark, MA, FSA, MInstCE	2004-07	M R D Seaward, MSc, PhD, DSc, FLS
1909-11	Revd J R Wynne-Edwards, MA	2007-10	C J Hatton, BSc, PhD, FInstP
1911-12	C T Whitmell, MA, BSc, FRAS	2010-13	A C T North, BSc, PhD, FInstP
1912-14	P F Kendall, MSc, FGS	2013-16	Joyce M Hill, BA, DPhil, DUniv, FEA, FRSA
1914-17	Revd W H Draper, MA	2016-19	C J Hatton, BSc, PhD, FInstP
1917-19	James E Bedford, FGS		
1919-22	Sydney D Kitson, MA, FSA, FRIBA		

## Life Members

Byrn, Dr R F M  
Day, N

Laurence, Miss M  
Moxon, I S

## Subscribing Members, as at 31.12.2019

Adamthwaite, Professor A P	Dowson, Professor D	McCleery, Dr I
Algar, D	Drewett, Dr R	McTurk, Professor R
Andrews, Professor R A	Drife, Dr D	Madill, N
Archenhold, W F	Eastabrook, Ms G	Marchant, Dr P
Bailey, Ms L	El-Hassani, M R	Meadowcroft, M
Barker, Ms J	Evans, Ms L	Meredith, Professor P
Bassant, M	Evennett, Dr P J	Midgley, C.
Beddows, Professor C G	Eyres, Dr P J	Mill, Dr P J
Blair, Professor G E	Farmer, P J	Millner, Professor P A
Blair, Dr M	Fletcher, Dr C R	Morgan, C J
Bourdillon, Ms A L	Gibson, Ms N	Morgan, Professor G J
Bower, Dr D I	Godfrey, Ms M A	Müller, A E W
Bradford, Mrs E J	Golphin, Dr P	Murphy, K
Bradford, J M	Grady, Dr K	Nash, Cllr Mrs E A
Briggs, M	Hall, E *	Newiss, Miss J
Britten, E A	Hall, Dr K	North, Professor A C T
Brown, Mrs C	Hammond, Dr C	Oakshott, Ms J, MBE
Bushby, Professor R J	Hann, Professor M A	Paterson, Dr A
Butlin, Professor R K	Harrison, Mrs H	Peat, Dr D W
Byde, Dr C	Harrison, M R	Pheby, Dr H
Chadwick, Mrs A L	Hatton, Dr C J	Pickering, Dr O S
Chadwick, P R P	Henderson, Professor P J F	Radford, Dr A
Chesters, Dr M S	Higgins, Dr J M	Ramsay, Ms G V
Childs, Professor W R	Higgins, Dr S J	Rastall, Professor G R
Clark, Mrs E A	Hindmarch, Professor I	Rawnsley, Dr S J
Clarke, Ms S	Hollings, Mr C	Reeves, Ms R, MP
Collins, C J	Hope, Professor T E J	Reynolds, P
Conaboy, A	Jakeways, Dr R	Richardson, Professor B F
Cook, Mrs D	Jenkins, Professor E W	Rivlin, Dr M
Cooper, Miss E	King, Dr M H	Roberts, Professor K J
Crosswell, R	Knapp, Dr D G	Robson, Ms R M
Cruse, J	Lance, Professor C E	Roche, Mrs G M
Dagg, Dr M	Larkin, B	Rushton, Professor J G
de Pauw, Dr K	Lawson, P W G	Salinger, Dr D
de Pennington, Mrs J	Lewis, Dr E L V	Savage, Professor M D
Dodson, Mrs H I	Lydon, Dr J E	Seaward, Professor M R D
Douglas, Ms J	Lynch, Ms K	Sellen, Dr D B

Sellers, D  
Shaw, K  
Slomson, Dr A  
Smith, W  
Stafford, Professor P A  
Stephenson, Mrs A  
Sunderland, Dr P  
Sutcliffe, Mr J R  
Suter, Mrs P A  
Sutton, Dr S L  
Swire, Ms L M P

Tannett, P G  
Taylor, Professor C M  
Temple, Mrs M  
Thornton, Dr D  
Turney, Dr J  
Turton, Dr A  
Unsworth, Dr R  
Wain, G  
Wainwright, M  
Wainwright, Mrs P  
Watson, Professor A A

Webster, I C  
Wesley, Mrs J  
West, A  
Widdowson, Mrs J  
Wilson, Miss C A  
Winn, P  
Wood Robinson, Mrs V  
Woodhead, Miss S  
Wright, Dr P G

We note with regret that two members of the Society,  
Mr A Morris and Mr R Smithson, died during 2019.



## Reports of Events held during 2019

*Editor's note: the events described below cover the calendar year 2019 and therefore differ from those listed in the Annual Report section of the Review, which are for the financial year 1 October 2018 to 30 September 2019. Events for October-December 2018 were reported in the Annual Review 2018.*

### **The Chas. F. Thackray Company Penny Wainwright**

*21<sup>st</sup> February 2019*

For a number of years Penny was an active member of the Leeds Phil. and Lit. Council and it was good to see her again. Her talk chronicled the development of a family business that started at the time when prescriptions were written in Latin and the practice of wearing a white coat and carrying out surgical operations in sterile conditions was considered to be an unnecessary affectation.

It began when a young pharmacist, Charles Thackray, and an accountant, Henry Wainwright (Penny's husband's grandfather), bought a small retail pharmacy in the centre of Leeds in 1902. Their enterprise prospered: expanding at every stage throughout two world wars and the creation of the NHS until it became a major international supplier of pharmaceuticals and medical equipment.

The premises they acquired was a corner shop, a retail pharmacy in Great George Street, Leeds. The site was well chosen and played a crucial part in their success. In the early days they continued supplying walk-in customers with the usual trade of ear drops, enemas, eye drops, ointments, pills, suppositories, cough mixture and gargles. One of the first indications of their business acumen was the purchase of an industrial-scale sterilizer. This enabled them to supply sterile bandages and dressings to local hospitals and nursing homes – and expand into the wholesale market. With the proximity of their shop to the Infirmary, surgeons would call in for sterile dressings and sometimes brought items of medical equipment for repair. The small workshop was extended when, with encouragement from local consultants, they began to manufacture, as well as repair, surgical instruments. Extended programmes of collaboration arose, notably with the orthopaedic surgeon, John Charnley. His close cooperation with the firm was to continue for over thirty years – and was to become a key factor in the development of hip replacements.

The First World War created a major market. At one stage, every British soldier carried a sterile wound dressing supplied by Thackray's. Between the wars, Thackray's grew to become one of Britain's principal medical suppliers, and began exporting goods all over the world. They built up a reputation for high standards and impeccable business ethics (to the extent of recommending products of competitors whenever they were appropriate). More than any other firm it was Thackray's who set the criteria when the new NHS was founded in 1948.

By the late 1980s Thackray's was becoming too large to operate as an extended family concern. It was an international organisation with its eyes on increasing its exports to N. America, and this brought its problems. They were facing aggressive and, at times, ruthless competition, in a rapidly-changing market. A merger with a large American company appeared to be the only

solution. Accordingly, in 1990 it was sold to the pharmaceutical company Corang Ltd. (A figure in excess of £80 Million was mentioned.)

Even with their ambitions and scope, the young Charles Thackray and Henry Wainwright could hardly have foreseen that their corner shop would expand to become a business empire employing over 500 people in the UK, with markets all over the world - and have the daily gratitude of tens of thousands of people (this writer included) for their role in the development of hip joint prostheses and keeping them mobile.

*John Lydon*

## **Science Fair**

*16<sup>th</sup> March 2019*

This year's Science Fair was again very successful and most of the usual participants were present who, as usual, provided interesting and popular displays. There were plenty of hands-on activities for the young and much informative material for all. There were new displays from the University including an enthusiastic display from the Public Engagement with Research team and another from the Astbury Biomolecular Structure Laboratory who invited visitors to massacre daffodils by immersing them in liquid nitrogen and banging them on the table! A popular latecomer was a representative from the Woodland trust with much interesting material.

Attendance was good, notwithstanding the very poor weather, and some 1500 or so visitors made their way through the rain. There were many families with young children who enjoyed themselves with such activities as pulling owl pellets apart and finding out what they had for their last meal! The Maths World stand had many interesting displays and one of the most popular activities was building structures out of plastic piping with the able and patient assistance of a senior member of the Maths World team. The Association for Science Education team also had their usual display of new physics for all.

Bobbie Millar from Quarry Arts brought along her usual collection of musical rocks which were very much appreciated since they could be struck with hammers to make a satisfying and musical sound. Leeds Astronomical Society members were present in good numbers together with telescopes and pictures on display and the Leeds Microscopical Society introduced visitors to the fascination of the very small with microscopical views on a screen.

Peapodcity again attended with packs of illustrated cards which, when scanned with a smart phone using a special free App, provided information about the illustrations on the phone screen. Many visitors bought packs of cards which provided much information mostly aimed at the young but also fascinating for their parents!

A stall about the joys of bird watching was again present and The City Museum's Natural Science table had examples of many kinds of teeth which were well received by the visitors.

There was a well-presented display poster near the entrance about the work of two of Leeds's Nobel Prize winners who carried out their research in the Wool Industries Research Association on Headingley Lane.

It was again a good and very worthwhile day and we are deeply indebted to John Roles for permission to use the Central Museum Arena and to the staff of the museum who were, as usual, unfailingly helpful.

*Robin Jakeways*

### ***Leeds in 1819 – the year of the foundation of the Leeds Philosophical and Literary Society***

**Steven Burt**

*21 March 2019*

In 1819, four years after celebrating Wellington's success at the Battle of Waterloo, the residents of Leeds were struggling to cope with post war problems of economic depression, high unemployment, poor standards of education and health, and desperate sanitary conditions. Despite this bleak outlook some visionary members of the town's elite, led by the octogenarian surgeon William Hey (1736-1819), made the decision to found the Leeds Philosophical and Literary Society and to provide the funding for an ambitious building, Philosophical Hall, for its lectures and museum.

What was Leeds like in that eventful year? Steve Burt led us on an insightful guided tour of the town, drawing on his extensive research into contemporary sources – directories, maps and local newspapers – and illustrating his descriptions with a wealth of wonderful images from the period. So we followed William Hey from his fine house in Albion Place (still there) to the splendid Court House in Park Row (gone now) where the first meeting about forming the Society was held. We were introduced to Benjamin Gott and John Marshall, both leaders and major shareholders in the Society. We walked the principal streets of the town – Briggate with its Moot Hall and Shambles leading down to the old Leeds Bridge, Kirkgate and the old Parish Church, narrow Boar Lane, and the newly developed Park estate, Park Square with its splendid merchants' houses, and Park Row where Philosophical Hall was to open in 1821. This was the prosperous West End of Leeds, in stark contrast to the filthy slum yards in the East, plagued by smoke from the new factories carried by the prevailing winds, captured by Turner in his 1816 view of Leeds, one of the first artistic depictions of an industrial town.

We were shown the great cloth halls and markets, and the thriving mills which represented the vibrant commercial and industrial life of the town. But there were many pressing concerns too: the lack of a clean water supply or sewerage, the rise in crime and vagrancy, the economic depression leading to many bankruptcies, the plight of the poor under the impact of industrialisation, highlighted by Robert Owen in his visit to Leeds that year. There was continuing political unrest and pressure for reform – this was the year of Peterloo. But people's charitable efforts helped to fund churches and schools, and the Infirmary and the House of Recovery to care for the poor and the sick: the work of town surgeon Charles Turner Thackrah,

later joint secretary of the Society and the pioneer of occupational medicine, was specially mentioned here.

Leeds in 1819 was in the process of evolving into a great industrial and commercial town. Extremes of wealth and poverty existed side by side, and major problems remained to be solved. However, there was a real desire for improvement, for enrichment of life, and an optimism which underpinned the move to found the Society and motivated those involved to provide the very best for their town and its citizens.

### ***Eveleigh Bradford***

### ***Repairing People - Innovations and Possibilities in Medicine* Alan Roberts**

*16<sup>th</sup> May 2019*

The Society was fortunate for the final afternoon talk of this year's series at Leeds City Museum to have Alan Roberts as speaker. As a former Pro-Chancellor at the University of Leeds and a former Vice President of the Royal Society of Medicine Alan was known to many in the audience.

He began his presentation with the observation that science and technology have made an immense contribution to developments in medicine in the last thirty years. This was emphasised through a variety of examples where the use of bio-materials had been employed to reconstruct various parts of the human body:- for prostheses for tendons, hernia repair, vascular(textured material) applications, breasts, hips, and knees, for ear replacement, cartilage replacement, cardiac valves, synthetic skin and so on.

The importance of the application of silicones in medicine since the middle of the last century was highlighted. Examples cited included breast implants, head and neck implants (chin, nasal, ear), siliconized fabrics, heart valves and tendons. The importance of the purity and use of medical grade silicone which through its biocompatibility properties enables safe contact with living tissue was highlighted. The low chemical reactivity, low toxicity, flexibility and heat resistance enables applications in tissue expanders, bandages and feeding tubes as well as implants.

A particularly engaging part of Alan's presentation related to the development and use of cyanoacrylates, a family of fast-acting, powerful adhesives with medical as well as industrial and household uses. Possibly the best known to the individual in the street is the super glues. Such materials can be more effective for closing wounds than sutures. One such wound glue is 'Indermil' the inventor of which was Alan Roberts. It is licensed for external use and adopted to place skin onto burns and enable healing around the ends of skin grafts and the relevance to those injured in the Bradford City stadium fire in 1985 was noted. Clinical interest in the tissue glue relates to the rapid action time, quoted as 10 seconds, the reduced damage to tissue, the improvement in repair of tissue compared to sutures, the prevention of seepage and hence elimination of infection and the ability to effect closure in inaccessible areas.

Alan Roberts' presentation was extremely well received by the audience and a vote of thanks given by the Secretary of the Society.

*Chris Taylor*

### **Report on Martin and Syngé plaque unveiling - 11<sup>th</sup> June 2019**

On 11<sup>th</sup> June 2019, members of Leeds Philosophical and Literary Society (LPLS) braved some unseasonal inclement weather to witness the unveiling of a new plaque commemorating the achievements of two local scientific heroes. In 1941, whilst working at the laboratories of the Wool Industries Research Association (WIRA) which used to stand on Headingley Lane, the scientists Archer Martin and Richard Syngé developed a new method of separation called partition chromatography. Although initially developed by Martin and Syngé for the analysis of wool, the impact of this method went far beyond the textile industries of



West Yorkshire. It allowed the biochemist Fred Sanger to determine the complete chemical structure of the protein hormone insulin and, when applied by Erwin Chargaff to the analysis of DNA, offered the first hint at how the genetic code might be carried. As a result of this profound contribution to biochemistry, Martin and Syngé were awarded the 1952 Nobel prize in Chemistry for the work that had been done at WIRA.

The plaque was unveiled by Drs Chris Hatton, President of LPLS, and Kersten Hall who has been researching the life and work of Martin and Syngé and said a few words before guests attended a reception at Devonshire Hall. LPLS were particularly pleased that several former employees of WIRA, and Mr. Erdal Kackar from Addlving, the current owners of the site who kindly gave permission for the plaque to be located on their property, were able to attend. Also very welcome was media coverage of the event by 'North Leeds Life' magazine and 'The Yorkshire Evening Post', including a short video clip on the YEP website, all of which helped to bring LPLS and its bicentenary celebrations to a much wider audience.

*Kersten Hall*

***“In Praise of Wool”: Archer Martin, Richard Synge & the blobs that won Leeds a Nobel Prize***

**Kersten Hall**

*13<sup>th</sup> June 2019*

As a Chemist, I have always been frustrated and irritated that, whereas the 1915 Nobel Prize for Physics awarded to Lawrence and William Bragg is well-known and well-celebrated in this city, the 1952 Nobel Prize for Chemistry awarded to Archer Martin and Richard Synge has almost been forgotten. Since initially the Civic Trust proved reluctant to install a ‘blue plaque’ on the old WIRA site (where the work was done) it was decided that the Society should take the initiative. The unveiling of the plaque (on the gatepost of Torridon House in Headingley) took place on 11th June (see previous report). Two days later it was followed by a lecture by Dr Kersten Hall, who is writing a book based on the Martin and Synge story; his short booklet (From Dark Satanic Mills to DNA) on this theme will be published by the Society in 2020. His lecture was both entertaining and informative and placed their work properly ‘in context’.

Archer Martin and Richard Synge (the name was pronounced ‘sing’) were initially research workers in the Chemistry Department at the University of Cambridge. Synge, who was sponsored by a Wool Industries grant, was using a counter-current apparatus built by Martin to try to separate the mixture of amino acids derived from the hydrolysis of wool. At this time, the analysis of complex mixtures such as this was an extremely difficult task and counter-current was perhaps the only way in which it could be done. However, this was a crucial problem that needed to be solved if the structure of wool proteins from different sources or that of any protein was ever to be understood.

When Martin was offered a job at WIRA (the Wool Institute Research Association) in Leeds it was decided that Synge should move with him. Eventually they succeeded in analysing their amino acid mixtures but the work was very difficult, very slow and laborious. Those of us who have used counter-current systems know that it is one of the most difficult and unpleasant of jobs imaginable. In counter-current the apparatus moves two solvents in opposing directions and separation depends on the relative solubility of the components in the two liquids. Martin and Synge then had the idea that one liquid (water) could also be held stationary on silica gel while the other liquid flowed over it. This worked just as well and was very much quicker and easier. It led them to the development of a number of different ‘chromatographic’ methods for separating mixtures. Their analytical paper chromatography, for the separation of amino acid mixtures, was to prove particularly important.

One of their first findings disproved the theory championed by Astbury that the amino acids in the protein chains in wool were arranged in a regular repeating sequence. Their method was then used by others in some of the first determinations of the structures of peptides and proteins including insulin and the antibiotic gramicidin. It was the beginning of the trail that led to our present detailed understanding of the chemistry that underlies ‘life’. By providing general, convenient ways of separating and of analysing mixtures it was also to revolutionise the practice of Chemistry and to pave the way for many of the advances in Chemistry and Medical Science that we have seen in the past fifty years. Their work should never be forgotten!

***Richard Bushby***

## **Summer Outing: A visit to Sheffield Assay Office and Kelham Island Museum**

*1<sup>st</sup> August 2019*

During our visit, we were told about the history of the Sheffield Assay Office which was established in 1773, when local silversmiths successfully petitioned Parliament for the right to assay silver, meaning to test and assess the precious metal content of an item. It is impossible to tell the precious metal content of an item just by looking at it. Gold, silver and platinum are too soft to use alone for making jewellery, cutlery and other goods and need to be alloyed with other, baser (and cheaper) metals for manufacturing. To protect both the manufacturer and the consumer, articles need to be tested to make sure that too much base metal has not been used. A 'hallmark' is the oldest form of consumer protection that exists.

While initially most of the assay business came from within a 20-mile radius of the city, Sheffield Assay Office now attracts customers from all over the world. Jewellery and items of precious metal are still assayed in their millions each year and bear the distinctive Sheffield 'Town' mark.

Having been told about the history of the Office and shown round its library, we were taken to the extensive laboratory where staff were engaged in testing items and applying hallmarks to show that they met the required standards.

For the second part of our Sheffield visit, we moved from precious metals to the history of steel production at the Kelham Island Museum, situated beside the river Don on a site that has been a centre of metalwork for nearly four centuries. We learned about the development of Crucible Furnaces which in the 18<sup>th</sup> century made what was widely regarded as the best steel in the world for tools such as saws and chisels; this was followed by Bessemer Converters, which made steel for railway lines, structural girders and steel-hulled ships. The exhibition contained a huge range of tools, reconstructions of workshops and all sizes of engines, culminating in the River Don Engine – the museum's largest and loudest exhibit, built in 1905 and in use till 1978; it is the biggest and most powerful steam engine in Britain today and it uses so much fuel that they only run it for a few minutes every day. The visits gave us an excellent insight into Sheffield's contributions to Britain's industrial heritage.



The River Don engine

*Anthony North*

*The Growth of Large Collaborations in Science* Alan Watson  
19<sup>th</sup> September 2019

In 1913, the physicist William Bragg and his son Lawrence, working together with only handmade equipment and in humble conditions that Bragg once politely described as 'shedding', made a discovery that revolutionised our understanding of matter. Their invention of X-ray crystallography, a method which used scattered X-rays to determine the arrangement of atoms in crystals, earned them the 1915 Nobel prize in Physics and to date some 28 further Nobel prizes have since been won using this method, including unravelling the structures of DNA, penicillin and insulin.

But, as was clear from Professor Watson's talk, the world of physics has changed dramatically since the days when Bragg and his son were shivering together in a freezing cold shed. Collaborations in physics now regularly involve thousands of scientists from across the world generating publications such as a recent one on the analysis of the Higgs Boson in which twenty two of the thirty three pages were devoted to listing the names of co-authors. To explore the rise of these large scale collaborations and the benefits and challenges that they present, Prof. Watson used his own experience of working in the field of astrophysics using the Pierre Auger Observatory Based in Argentina, this uses a network of detector arrays that cover over 3000km<sup>2</sup> - an area one and half times the size of West Yorkshire - and has played an important role in cosmological discoveries such as the coalescence of two neutron stars.

Why then have such large collaborations arisen? In the fields of geography and geology, large numbers of collaborators were being used in the 19<sup>th</sup> century and at the start of the 20<sup>th</sup> century, in the survey of India and the establishment of a network of seismographs on Martinique. But it was in the mid-20<sup>th</sup> century with the Manhattan Project and shortly afterwards, the establishment of CERN, that physics began to be done on such a large scale as such a broad range of scientific skill and technical expertise.

The successful detection of gravitational waves and the Higgs boson show that these large-scale collaborations can be highly productive. But they are also not without their challenges. Co-ordinating these massive projects is a formidable feat of logistics, communication and management as well as the ever-present challenge of winning funding to support them. Large-scale international research teams also raise the important question of who exactly is the experimenter – a question which has become of interest to sociologists of science.

Such large-scale collaborations also bring a particular challenge to young researchers for whom involvement in such a massive project may not necessarily generate the papers they will need to distinguish themselves as independent researchers. Nor is this problem confined solely to physics. Molecular biology also now routinely involves large international collaborations such as a recent publication on the genetics of the fruit fly *Drosophila melanogaster* which listed 1014 authors and a study of the mouse genome involved over 50 authors from research teams in Germany and Japan.

In his autobiography, 'Heraclitean Fire', Erwin Chargaff who was one of the pioneers of molecular biology expressed his concerns about these developments. Science was in danger of

losing its soul when carried out on an industrial scale. Science, said Chargaff, had become no longer about understanding, but outwitting nature and he feared what might come as a result of this. His solution was that science needed to return to being done in a shed. What Prof. Watson would have made of Chargaff's fears would certainly be interesting to know.

### *Kersten Hall*

## **The Bicentenary Conference**

*19<sup>th</sup> October 2019*

It was thought appropriate that as part of the Society's Bicentenary celebrations, we should explore the origins and early history of the Leeds Phil. & Lit. Rather than planning a series of separate lectures during the year, a day conference would enable both speakers and conference attendees to exchange ideas rather than the more conventional format of a question and answer session at the end of a lecture. An impressive panel of lecturers was gathered to speak at the Conference: Professor Jon Mee of York University, Professor R.J. Morris from the University of Edinburgh, Professor Greg Radick and Dr Jon Topham, both from Leeds University. Janet Douglas, who organised the conference, also delivered a lecture.

Professor Mee's paper located the Leeds Phil. & Lit. in a wider Trans-Pennine context which stressed how thickly-networked groups over the region shared common Enlightenment beliefs that knowledge was produced through discussion and argument. Many of the leading members of these northern societies were Unitarians though Phil. & Lits. were never exclusively Unitarian clubs. In Leeds for example, there were members of other Non-conformist denominations as well as Anglicans like William Hey and Benjamin Gott. Focussing primarily on Leeds, many of the concerns of the first paper were taken up by Professor Morris who reminded us that the intensity of religious divisions in the early 19<sup>th</sup> century were a serious barrier to middle class co-operation; hence the Phil. & Lit.'s constitution prohibited discussion of religion or politics, and in this way provided a neutral space for negotiating differences and raising levels of tolerance and mutual understanding. Useful knowledge exchange can only take place within the rules of courtesy and to ensure that argument did not descend into confrontation, associations needed to develop regulations and the rituals of meetings that we now take for granted.

In the afternoon, we listened to two papers on the Phil. & Lit.'s Museum from Dr Topham and Professor Radick both of whom paid tribute to Mark Steadman, whose PhD on the Museum informed their lectures. Dr Topham spoke about the origins of the Museum, how the collections were housed and managed, and issues of accessibility, whilst Professor Radick gave us a memorable case study on the work of the Society's first professional curator, Henry Denny and his relationship with Charles Darwin. The conference was rounded off by Janet Douglas' talk on the Phil.& Lit. and the Encouragement of British Art. Although the Fine Arts were not formally part of the Society's objectives, but through lectures, conversazione and exhibitions, it locally also played its part in transforming cultural tastes away from the work of foreign artists to a Buy British agenda.

It was entirely appropriate that the conference was held in the City Museum as the Phil. & Lit. Museum formed the basis of the City's own collections today. We are very grateful to the assistance given to us by John Roles and his museum staff. We all learnt a lot not only about the Leeds Phil. and Lit. but also about the significance of these societies in the broader cultural history of Britain.

*Janet Douglas*

***Why Grass is Green and Blood is Red*** Simon Phillips

*24<sup>th</sup> October 2019*

As long ago as about 400 years BC, Democritus had said that everything was made of invisible atoms, but it was not until the early days of the LPLS that John Dalton clearly proposed that all matter was composed of atoms, indivisible and indestructible building blocks. While all atoms of an element were identical, different elements had atoms of differing size, mass and properties, such as whether they attracted or repelled each other. All living things are made of compounds that mainly consist of H, C and O atoms, and were referred to as 'organic', compounds from other sources being termed 'inorganic', though this distinction was nowadays considered to be irrelevant. Atoms are clearly minute: 30 trillion would fit on a pinhead; the world population is about 7.5 billion.

While visible light allows us to see objects as small as bacteria through microscopes, radiation of much shorter wavelengths is required to see details of the structures of viruses and of the individual molecules that make up living things. X-rays had appropriate wavelengths, but it is not possible to make lenses that would bend the rays to form images directly; however William Bragg (Professor of Physics in Leeds and a member of the LPLS) together with his son Lawrence showed how the structures of molecules and the interactions between them could be found from the patterns formed when X-rays passed through crystals. Later, again in Leeds, William Astbury used X-ray diffraction to study biologically important substances such as wool and hair and laid the foundations of 'molecular biology'. He also showed that soluble proteins could be processed to form fibres.

Atoms consist of a minute nucleus at the centre of orbiting electrons – they are mostly empty space. Water is a very special substance – water molecules seem to like each other and need to reach quite a high temperature (100°C) to boil compared, for example, to methane which boils at -161°C. This is a consequence of the ability of water molecules to form hydrogen bonds with each other. The 'stickiness' of hydrogen bonds is an essential feature of the molecules in living organisms – there could be no life without them.

Differences in chemical structure lead to differences in properties, such as hardness or softness. and colour too; until the 18<sup>th</sup> century it was thought that 'organic' molecules were all colourless, but we now know that is not the case. Biological molecules are not different in nature from those in other substances, but they are highly complex. Many have a tendency to form helices or strands. For example, there are 30 trillion cells in our body, each of which

encloses helical DNA which, if unwound and stretched out, would be 2m long. We now know that this DNA comprises 20 thousand genes, with a full complement being present in most of our cells.

Colour is a conspicuous property of some biologically important molecules, a well-known example being haemoglobin which is responsible for the red colour of blood; the colour is due to the incorporation of an atom of iron in addition to the H, C and O atoms (supplemented by a few sulphur atoms) which make up the rest of the molecule. In a similar way, the presence of iron and sulphur atoms in the molecules of the photosystems which convert light to chemical energy are responsible for the green colour of materials such as grass.

We think that mankind has been responsible for many inventions, e.g. fire, pigments, the wheel, clocks and pumps. In fact, many of these have been 'invented' by nature in the course of evolution. Reference has already been made to pigments. Ropes are made from fibres being twisted round each other, and then twisted the opposite way; the molecule of collagen, the protein of tendons, is just like that with molecular chains having an anti-clockwise twist wound round each other in a clockwise manner.

Bacterial flagella spin round to form motors that move the bacteria around. Changes of shape in membrane molecules pump calcium through the membrane. Muscles comprise components that exert a tug-of-war on each other, with slight differences in the distances between the units of two strands causing the components to slide past each other, as in a moving train.

Understanding ourselves and how our bodies function allows us to recognise what has gone wrong when we have a disease and to design new treatments.

*Anthony North*

## **Bicentenary Dinner**

*1 November 2019*

To celebrate the two hundred years' existence of the Leeds Philosophical and Literary Society and its links with the city, a dinner was held at University House at the University of Leeds. This was an occasion for the Society to welcome guests from institutions and societies within the city with which it had been associated over its lifetime.

Recognising the lengthy and strong link between the University of Leeds and the Society, the Guest of honour was the Chancellor of the University, Dame Jane Francis, accompanied by the Vice Chancellor, Sir Alan Langlands. Other guests included Martin and Penny Wainwright (a former member of Council) and representatives of the City Council, the Leeds Civic Trust, the Medical School, the Thoresby Society, the Leeds Library, the Photographic Society and the Astronomical Society. Joining the current Society's Council were past Presidents, Oliver

Pickering, Peter Evennett and Professor Mark Seaward. The Society was also pleased to welcome the Vice President of the Manchester Literary and Philosophical Society.

After the dinner, several of the guests spoke of their association with the Society and its contribution to the city over the last 200 years. After his speech, Sir Alan Langlands kindly presented the Society with a gift from the University, a framed print of a 1915 drawing by Charles Ginner of the original buildings of the University.

*Chris Hatton*

### **Annual Priestley Lecture**

held jointly by Mill Hill Chapel, the Leeds Library and the LPLS

28 November 2019

#### ***From Climate Science to Climate Action? Piers Forster***

It is highly appropriate (at a number of levels) for Professor Forster to have given this lecture to this audience. During the six years that Joseph Priestley was in Leeds, he preached and taught at Mill Hill Chapel, was the leading figure in the creation of the Leeds Library and founded a discussion group, of which the Leeds Phil. and Lit. is the linear descendent. He was also actively carrying out chemical experiments – particularly concerning the properties of ‘airs’ (gases). You might consider that an investigation which involved a bell jar, a candle, a sprig of mint and a mouse is unlikely to change the face of science – especially when it was carried out by a man clinging to the discredited concept of phlogiston. However, that is precisely what it achieved. Priestley’s discovery of dephlogisticated air (oxygen) and the realisation that plants ‘produced’ it and animals ‘consumed’ it, gave rise to the concept of ecology on a global scale. Its significance was acknowledged during his lifetime, with the Copley medal of the Royal Society (the Nobel Prize of its day). And it is fitting that the new International Centre for Climate at the University of Leeds is named after him.

Piers Forster is Professor of Physical Climate Change and Director of the Priestley International Centre for Climate at the University of Leeds. He is a physicist by training and his research has focused on quantifying the different human causes of climate change. He sits on a number of National and International committees concerned with global temperature rise. After an introductory explanation of the physics of the ‘greenhouse effect’, he described the role of the CONSTRAIN project, a body set up to implement the 2015 Paris Agreement in which 197 countries agreed to address the problem of global warming. They committed themselves to reducing greenhouse gas emissions (particularly carbon dioxide) at ‘*least enough to limit average global warming to 2° C above pre-industrial temperatures*’. Each country volunteered to set its own targets and give details of how it intended to meet them. The agreement, stresses the need to replace fossil fuels with clean, renewable energy sources. Although it does not explicitly mention agriculture, it is heartening to find that 36 of the 197 signatories also committed themselves to raising the levels of carbon stored in soils by encouraging ‘regenerative’ agricultural practices.

CONSTRAIN faces two distinct problems. The major one is political. The agreement is purely voluntary – and the required measures could be expensive, at least in the short term. The risk is that smaller countries will increasingly resent making sacrifices while larger countries go ahead discharging pollutants into the atmosphere, and the whole scheme will collapse. The second problem is to assemble a quantitative model, relating pollution levels from various sources to the degree of global warming, so that the effectiveness of measures taken can be evaluated and acted upon accordingly. This has been tackled by the team headed by Professor Forster in Leeds and incorporated in a series of reports over recent years from the Intergovernmental Panel on Climate Change (IPCC). If climate warming continues at its current rate, it is estimated that we are likely to reach an excess temperature of 1.5°C between 2030 and 2050.

This was an informative and thought-provoking lecture on the major problem threatening the future of humanity - and it was a privilege to have heard it from the lips of a world expert.

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#### *Addendum*

2020 is just few months old and Britain has already been lashed with two storms and subsequent flooding of a severity which, a decade ago, would have placed them in the ‘*once a century*’ category. And recent national news showed a helicopter ferrying 60 tons of snow to cover the bare ground of what used to be the lower pistes, now left exposed by receding snow-line at the Louchon-Superbagnères ski resort in the French Pyrenees. In 2017 Donald Trump announced his intention to withdraw the United States from the Paris agreement formally in November this year, but changes in United States policy contrary to the Agreement are already in place. How large does the writing on the wall need to be?

*John Lydon*

#### **AGM & Dinner**

*5 December 2019*

As last year, the Society’s reception, AGM and Christmas dinner were followed by a musical offering, this time by the Hot Rhythm & Dynamite Ukulele Cabaret Show Band – a group of five members with ukuleles, fiddle phone, guitar, washboard and bass, playing music written within the Society’s lifetime – a clear contrast to last year’s Leeds Waits’ entertainment and a good awakening for the journey home after our meeting and food.



## **Reports received during on Grants awarded by the Society**

### **Women of Westminster: The MPs That Changed Politics**

*£500 to Rachel Reeves, MP, towards publication of her book on Women of Westminster*

I am hugely grateful to the Leeds Philosophical and Literary Society for giving me a grant that helped to pay for my research assistant for my recently-published book, *Women of Westminster: The MPs That Changed Politics*. When I was elected as MP for Leeds West in 2010, I discovered that there had only been one woman MP to represent Leeds in parliamentary history: Alice Bacon. Yet there was very little information publicly available about her. I started to do some research and I decided to write a biography of Alice Bacon, which was published in 2015. During my research I came to appreciate the extent to which women MPs in general have been written out of our parliamentary history. Consequently, I embarked on a larger project – a book chronicling the 100 years of women in Parliament, since Nancy Astor took her seat as an MP in 1919. Research for the book involved not only extensive literature review but archival research, and interviews with 68 contemporary women MPs. It was therefore enormously helpful to have some financial assistance for research, and I am very grateful to Leeds Philosophical and Literary Society for their generous support. The book was published in March 2019 – to mark the 100<sup>th</sup> anniversary of the first woman to take her seat in the Commons – and the paperback edition will be published in March 2020.

*Rachel Reeves*

### **Left Bank Opera Festival 2018**

*£1,000 to support the Festival*

Between 22 and 26 August 2018, we delivered the 2018 Left Bank Opera Festival (our second annual Festival at Left Bank Leeds) themed around Opera and Asia. This consisted of three productions – two new Northern Opera Group productions (‘The Original Chinese Conjuror’ and ‘The Yellow Princess’) and Ensemble Tempus Fugit’s ‘Calcutta’. Alongside these were a series of talks, discussions, and participatory sessions, including a panel discussion with academics from the University of Leeds and free arts activities prior to ‘Calcutta’.

The Festival achieved one of our principal aims in helping to promote Northern Opera Group more widely, achieving our first national newspaper review (The Guardian, 4\*), a whole Festival review in Opera magazine, and seeing strong growth on social media, including 62 new Facebook followers and 40,086 reach, and 42 new Twitter followers and 36,700 impressions in August. We achieved audiences of 1,500 for a live rehearsal we streamed online prior to the Festival of ‘The Original Chinese Conjuror’.

Feedback to the Festival has been immensely positive with the following headline figures:

- 100% ‘Good’ or ‘Very Good’ feedback on the productions (82% ‘Very Good’, the highest option)
- 43% of audiences under 35 years old
- 60% of first time audiences to Left Bank Leeds

- 100% 'Good' or 'Very Good' on value for money (70% 'Very Good')
- 100% would like to see more work by Northern Opera Group

"Both of us had an intense emotional reaction to Calcutta, wonderful experience"

"The opera was both amazing and charming. Loved all the characters, how the story was done and the music. Will find out more about the festival next year and book more events."

"We very much enjoyed the performance and thought the singing and music were excellent. The venue is enchanting"

"Lewis Gaston conducted the instrumental sextet vividly. David Ward's production, to designs by George Leigh, was especially alive to comic possibilities" (Opera magazine)

***David Ward***

### **Life and Work of Archer Martin and Richard Synge**

*£100 to Dr Kersten Hall to support his research*

The purpose of this grant was to explore the life and work of the scientists Archer Martin and Richard Synge who were awarded the 1952 Nobel Prize in Chemistry for their development of partition chromatography, a novel method of chemical separation. Although originally developed by Martin and Synge whilst working at the laboratories of the Wool Industries Research Association (WIRA) in Headingley for the chemical analysis of wool fibres, the impact of partition chromatography was to go far beyond the textile industries of West Yorkshire. The biochemist Fred Sanger, who received the 1958 Nobel prize for determining the complete sequence of amino acids in the hormone insulin, said that partition chromatography had been crucial to his work and described it as 'probably the greatest advance that has been made recently in this field'. Later, the US biochemist Erwin Chargaff used Martin and Synge's method to analyse the chemical composition of DNA and offer the first hint at how DNA carries genetic information through its base sequence.

The research funded by this grant aimed to discover more about how a novel method of separating the chemical components of wool could have led to the ground-breaking discoveries of Sanger and Chargaff that were landmarks in the emergence of molecular biology. The grant funded a number of visits to the archives of Trinity College Cambridge to study the papers of Richard Synge; the papers of Fred Sanger at the Wellcome Archive in London, and the archives of the Nobel laureate Dorothy Hodgkin at the Bodleian Library in Oxford.

The results of this research were presented in a lecture to the Leeds Philosophical and Literary Society to coincide with the unveiling of a blue plaque in honour of Martin and Synge in June 2019, and in a research paper submitted to the journal 'Endeavour'. The research also forms the basis of a forthcoming booklet 'From Dark Satanic Mills to DNA' to be published by LPLS in 2020 and several chapters in a new book about the story of insulin, to be published by Oxford University Press.

***Kersten Hall***

### **Whoever heard of a Black Artist?**

*£500 to Tajpal Rathore of Tribe Arts to support a theatrical performance on the historical-political context of black art*

With the assistance of the society's grant, we were able to stage the in-house created Tribe Talks event focusing on how Black Art is understood in contemporary British society with the aim of decolonising the thought process and perception around the 'Black Artist', Black used as a label to define anyone not White European.

We engaged attendees in a conversation using provocations such as "how has empire and colonialism affected black art", "what is the white gaze", "what is black art", "how and why the output and motivations of black art have changed". Attendees included local artists in Leeds, many from the communities we were speaking about who partook in discussion around the work they do and their struggles and experiences of being a Black artist.

The panel comprised Sonia Boyce and Hammad Nassar who helped facilitate the discussions with the audience, using their personal expertise to delve into the deeper rooted origins of the Black artist in British and Western societies, how their stories were perceived and translated, the fetishization of their work and how many used their art as a form of therapeutic output. We discussed the historical aspects of 'whitewashing' of black bodies by white artists such as Edward Poynter's and Claude Lorrain and the implications of erasing these individuals from history and the political and racially fuelled reasons behind this.

One of the attendees, artist Barbara, talked about how even today she is confronted with racism in Artist circles as her work is not 'urban' or typically 'black' therefore she is continuously questioned about her place in such a high brow setting. The event could not have been successful without the Society's support for the rehearsal and facilitation fees for this project and we have already received a lot of interest around the decolonising format of Tribe Talks and we are currently working on how we can further develop the format to be inclusive of a wider range of societal topics and issues.

### ***Tajpal Rathore***

#### **Headingley Festival of Ideas**

*£500 to support the Festival*

This year's Festival of Ideas, the fourth held in Headingley over the last few years, and whose theme this time was 'Borders', proved a great success. In total, 17 events took place, ranging from talks on prison reform to borders throughout history and an interactive panel presentation (which included our local MP) on the borders and barriers encountered by refugees. Other more light-hearted events included a walk around the borders of Headingley, a musical performance demonstrating how national borders have impacted on music-making over the centuries and a poetry event, with local poets exploring in their own words the concept of borders in their lives. The middle Saturday showcased a number of events ranging from a presentation from Medecins sans Frontieres to another about cross-border trekking in the

Balkans, interspersed with performances from refugee choirs and with stalls marketing craft items produced by refugees.

The festival was widely publicised and generally well-supported, with between 450 and 500 attending the various events, mostly from the local area but with some from other parts of Leeds and elsewhere in Yorkshire. Attendees represented a wide age range with those in the 20 to 60-year group roughly equalling the over 60's in numbers. The walk around the borders of Headingley attracted a 6 month-old baby (and her parents) as well as a woman of over 80, in a group totalling 30 in number. Most of those who attended events were White British but there was a reasonable representation of people of different ethnicities.

Feedback sheets were available at all events and comments were universally positive. Out of 80 forms that were analysed, 77 respondents found the events 'very interesting' and 3 'quite interesting'. (cf. individual comments below) The only mild criticisms received related to the MSF presentation which one young woman found too upsetting and another comment from an event about refugees, which was described as 'speaking to the converted' but where the attendee acknowledged that reaching beyond this group posed difficulties.

It is anticipated that the Festival will continue into the future and to that end, an email has already been circulated to groups and individuals who have either already shown an interest or who may want to become involved, giving details of a meeting in September to start to plan the next one.

#### Individual comments

'My knowledge of refugees and asylum seekers was much improved'

'Interesting thoughts on hedgerows, native plants and eco-systems.'

'Very thought-provoking film. Good to have opportunity to talk and think about this.'

'We were shown places that we didn't know existed and loved hearing about the people who once lived in this area.'

'I would like to get more involved in prison reform, perhaps through volunteering with prisoners. Thanks a lot. This event really inspired me.'

'Fabulous to have such a gathering of local poets.'

'It's wonderful to meet people I would never ordinarily have met. Thanks for organising such an interesting and varied festival.'

'We are very lucky to live here.'

*Liz Jeffery*

#### **The Brick Man**

*£400 to support a performance based on Antony Gormley's proposed statue*

Even though we did not raise our target income, we made the decision to continue our research and development time on Brick Man as outlined in the application but with a few adjustments.

Our application to use a space at Yorkshire Dance Centre was not successful so we worked in a studio space in Wortley between May 13<sup>th</sup> and 17<sup>th</sup> 2019 without the input from a designer and choreographer. We also decided that it would be more productive if we worked on the material without the pressure of producing something to show to an audience at the end of the week.

We explored the physicality of telling the story, looking at the choices Antony Gormley made in representing a standing figure and whether he achieved creating an “everyman” figure. Moving the angle of the head can change the meaning dramatically from “looking heavenwards” to “looking down in shame” or a “sideways glance at danger”. The hands are equally powerful in representing ‘something to hide’ or “something to behold”.

Trying to keep the text to a minimum and allowing the physical movement to tell the story proved a real challenge when dealing with a sculpture that is all about “stillness”. The strength of the image can really only be appreciated against a backdrop of movement, whether that is an ever changing cityscape or a natural backdrop of changing light and weather. From this discovery we looked at how we could shape a performance and whether we needed our audience to be participants, walking around an actor standing still as the Brick Man, or if they should experience the stillness by actually ‘being’ the Brickman.

We discovered that an interesting way to tell the story of the Brick Man was through its absence, which meant relating the narrative as if the sculpture had been actually made and then telling the audience that it was in fact rejected and never built. This sense of absence would work in different ways depending on whether the audience knew about the Brick Man or not. We also wrote the story of the Brick Man in a version for children based loosely on the structure of The Pied Piper, with the artist Antony Gormley representing the pied piper figure who comes in with a contribution to the city that is rejected.

Our next step is to approach Leeds International Festival next year with the possibility of developing the Brick Man piece for performance there. It was a very productive week and we are extremely grateful to the Leeds Philosophical and Literary Society for making it possible.

***Anthony Haddon and Peter Spafford***

### **Production of Mascagni's Cavalleria Rusticana**

*£1,000 to Katie Pearce on behalf of West Yorkshire Symphony Orchestra*

WYSO's production of Cavalleria Rusticana by Mascagni took place at Sunnybank Mills in Pudsey on 15 and 16 March 2019 to sell out audiences of 200 on each evening. The grant was specifically used to pay fees for the young artists taking the solo roles, as well as for the conductor, Davide Levi, who found it a very valuable experience in his career development, especially to be able to conduct two performances of the work, having prepared and rehearsed the orchestra, soloists and chorus. Davide used a video extract from the performances as part

of his application pack for the Sir Charles Mackerras Conducting Fellowship at Trinity Laban, which he was successfully awarded.

Julien Segol, who played the part of Alfio, was offered a scholarship to the Oxenfoord International Summer School as a direct result of the Summer School directors seeing his performances in *Cavalleria Rusticana*; he attended the course in summer 2019.

Sarah Estill, who took the role of Santuzza (1 night), is a member of the Opera North chorus; for her to have the opportunity to take on a solo role, rather than an ensemble role, with full orchestra was great experience for developing her role further at Opera North. Sarah's student, Luna, undertook the role of Santuzza (1 night) as part of her undergraduate performance module at Leeds University. This of course involved Sarah in teaching the role as well as performing it.

The orchestra enjoyed the experience of preparing different repertoire from the usual 'Overture, Concerto, Symphony' format of a concert and rose to the challenge of working with a much greater cast of multiple soloists plus chorus.

The location at Sunnybank Mills really lent itself to creating a different and more relaxed atmosphere than can perhaps be found in a grand opera house. The large mill space was set out with long tables at which the audience enjoyed a three-course meal supplied by Salvo's restaurant before the performance.

Financially the project broken even, with contributions to the budget from Leeds Philosophical and Literary Society, the Liz and Terry Bramall Foundation and ticket sales from the two performances.

***Katie Pearce***

### **Essays on Musical Exchange between Britain and Europe, 1500–1800**

*£300 towards the publication of a festschrift celebrating the work of Peter Holman, MBE*

This grant has supported the publication of *Musical Exchange between Britain and Europe, 1500–1800: Essays in Honour of Peter Holman*, ed. Bryan White and John Cunningham. The final manuscript was delivered to The Boydell Press on 15 September 2019. In addition to the book's 22 chapters, there are 24 figures and 76 musical examples; the LPLS funding has helped to meet the cost of this aspect of the publication. The projected publication date is May 2020. The LPLS appears prominently in the Acknowledgements with thanks for its support.

The collection celebrates Peter Holman's work on British musical culture in the early modern era, developed over a long and distinguished academic career, including over a decade at the University of Leeds as Professor of Music. His association with Leeds still continues in his role as Emeritus Professor at the University and as Director of Leeds Baroque, the period instrument group that he founded in 2001. Peter's main research activities concern English

music c.1550–1850 and early stringed instruments and their repertoires. Many of his scholarly insights are generated and underpinned by an intimate knowledge of the music. He is a distinguished performer and conductor; in addition to his work with Leeds Baroque, he is director of the choir Psalmody, Opera Restor'd, and of the Parley of Instruments. The Parley, founded by Holman and Roy Goodman in 1979 has become a leading period ensemble with an international reputation. It has made over sixty broadcasts for BBC Radio 3; its repertoire has ranged from Renaissance string consort music to nineteenth-century English parish church music: much of it has been recorded for the path breaking series on Hyperion, The English Orpheus.

The essays in this volume offer a reappraisal of musical activity in Britain c.1500–1800. Given that Peter has significantly redefined understanding of cross-Channel traffic in the development of British musical culture in the early modern period, contributors were asked specifically to deal with the theme of cultural exchange through the lenses of Repertory, People and Practices. The essays also consider the many ways in which musical culture participated in the dynamic relationship between Europe and Britain c.1500–1800. All of the scholars represented in this book have worked personally with Peter over many years, as fellow researchers, colleagues or as his research students. All have been influenced by the breadth and intelligence of his publications, the rigour of his methods, the extensive repertoire he has brought to life in recordings, and by his personal generosity as a scholar. In their contributions, they follow avenues opened up by Peter's work, exploring ways in which the cross-fertilisation of music and musicians has enriched European, and especially British, culture of the early modern period. The three-fold division of the book reflects Peter's own research methods in which the consideration of the relationship between these factors has brought insights not available by considering each factor in isolation. Likewise, the timespan, c.1500–1800, mirrors the period over which his work has most intensely focussed.

***Bryan White***

### **The Downhearted Drayman**

*£450 to Matthew Bellwood on behalf of Moveable Feast Productions to print a picture book about the statue in Dortmund Square*

The Leeds/Dortmund 50 project took place this year to celebrate the 50<sup>th</sup> anniversary of the twinning of Leeds and Dortmund in 1969.

As part of the project, writer and storyteller Matthew Bellwood worked with a group of ten children from Beechwood Primary School to create a story about The Dortmund Drayman. This statue, by German sculptor **Arthur Schulze-Engels**, was a gift to the people of Leeds to celebrate the 10<sup>th</sup> anniversary of the twinning of the two cities.

The story was developed together with the children and concerns the statue's adventures on his "night off". It features encounters with other statues in Leeds City Centre and links to the

folkloric story of the Town Hall Lions coming to life once a month when the Town Hall clock strikes thirteen.

The children undertook a visit to Leeds City Centre to encounter some of the statues there and to learn more about them. They also took part in drama and creative writing activities to help them generate a story using the statues as characters.

The material generated was used to create a short radio play, which the children performed. The play was recorded at Chapel FM in Seacroft and was broadcast as part of the Leeds/Dortmund 50 festival in September.

In addition to the play, the story was turned into an illustrated book, featuring pictures drawn by children in the school. Altogether, fifty children provided illustrations for the books. Copies have been sent to partner organisations in Dortmund and given to German visitors attending the festival in October. Remaining copies will be distributed to schools in the Seacroft Area via the Schools Trust and given to Leeds Library and Information Services for archiving purposes and for distribution to children's libraries in branches around the city.

There are links to the radio play and the launch event for the picture book in:  
<https://www.chapelfm.co.uk/?s=the+downhearted+drayman>

***Matthew Bellwood***

### **A History of Clinical Specialties in Leeds Teaching Hospitals NHS Trust 1767-2018**

*£600 to Sylvia Craven to support the production of a book describing the history of Leeds Teaching Hospitals' medical and surgical specialities over the last 250 years.*

The book (hardback consisting of 28 articles, 279 pages, 87,000 words and both black and white and colour photographs) was launched in December 2018 at an event in the original main entrance of the Gilbert Scott Infirmary.

The total publishing costs were £6,965 of which Leeds Philosophical and Literary Society contributed £600. Leeds Cares contributed the remainder, but without the Philosophical and Literary Society's contribution we would not have been able to go ahead with publication.

The book has been very well received and we have had requests for it from doctors who trained in Leeds but who are now working as far away as Canada, Australia and the USA. 1,000 copies were printed and have been sold in Blackwells' bookshop as well as by the Trust charity, Leeds Cares, through their website. Once the Thackray Medical Museum is refurbished they will go on sale again in their bookshop.

The main purpose of publication was to mark the 70th anniversary of the NHS and the founding of the Leeds General Infirmary by capturing stories of the development of medicine in Leeds since 1767. The Trust has been able to give the book to many visiting dignitaries, and it

provides a rich source of information to new doctors in the Trust who are helped to understand the history of the services they are continuing to provide through into the twenty first century.

The inside jacket cover acknowledges the support the Leeds Philosophical Society has provided for the book.

*Sylvia Craven*

### **Leeds's Long-finned Pilot Whale**

*£5,000 to Clare Brown on behalf of Leeds Museum & Galleries towards the cost of the re-articulation of Leeds's Long-finned Pilot Whale*

In 1868, the LPLS acquired the skeleton of a sub-adult male Long-finned Pilot Whale *Globicephala melaena*. It was part of a pod of whales that were spotted by fishermen in the Firth of Forth in 1867. The long saga of the catching, stranding, shooting and stabbing of this particular pod is well documented. It was reported in many newspapers at the time and a record is even made in the Transactions of the Zoological Society (Murie, 1873, "On the organisation of the Caaing Whale *Globicephala melas*"). The specimen itself can be seen on display in the background of a c.1900 photo of Philosophical Hall. There are no records of it on display after this and the bones appear to have resided in three boxes, shuffled around the stores of Leeds Museums and Galleries for many decades. LMG was therefore extremely pleased to be able to have the opportunity to resurrect this lost specimen with the generous funding of the LPLS, the National Lottery Heritage Fund and the Friends of Leeds City Museums. The LPLS kindly gave the project a large grant as part of their 200<sup>th</sup> anniversary celebrations.

The conservation, re-articulation and re-hanging of the whale itself was carried out by the natural science conservator, Nigel Larkin. Mr. Larkin has been involved in several whale re-hangs, not least the spectacular Fin Whale at the University Museum of Zoology in Cambridge. Various parts of the Leeds skeleton were missing and some of the bones were very dirty. Mr. Larkin painstakingly cleaned the bones and replaced missing parts with 3D printed components



*The scapula on the left is the original, the other has been 3D printed and painted*

obtained by scanning extant bones and modelling smaller parts of teeth from another Long-finned Pilot Whale (also in the University Museum of Zoology in Cambridge and we thank them for their support with this).

The whale was put on display on 26<sup>th</sup> October 2019 at Leeds City Museum outside the Life on Earth Gallery. We celebrated the launch with a programme of events – from baby-friendly curator talks to hands-on craft activities – and a poem commissioned for the occasion from Winston Plowes. The LPLS has also arranged a talk on the evolution of whales to be held on 23<sup>rd</sup> January 2020 at Leeds City Museum.

*A photograph of the re-articulated whale skeleton, now suspended below the City Museum's ceiling, is on the back cover of the Annual Review*

*Clare Brown*





The back cover is a photograph of the Long-finned Pilot Whale given to the LPLS in 1868 which had fallen apart many years ago and is now on show suspended from the ceiling in the City Museum, having been painstakingly reconstructed. The work was supported by a special grant from the Society as part of its Bicentenary celebrations. See full report on pp 43 - 44.



*The Long-finned Pilot Whale*