



**Leeds Philosophical
and Literary Society
Annual Report and Review
2022**

The 202nd Annual Report of the Council
at the close of the session 2021-22

*presented to the Annual Meeting held on
8th December 2022*

and

Reviews of events and of grants awarded in 2022

Welcome

The Society, known to many Leeds citizens just as “the Phil. and Lit.”, was founded in 1819. Over the following two centuries it has always embraced the current topics. A glance at each of the past years’ lecture titles and event programmes provides evidence of its determination to tackle contemporary issues which were often controversial and regularly innovative. It aims to maintain that tradition today and it is the foremost organisation in Leeds that informs and challenges the citizens of Leeds and district in the fields of literature, science and the arts. Because of its long history and its reputation, it is able to secure the foremost lecturers and presenters in their respective fields. Its membership is open to all and the only qualification for membership is an interest in key issues of the day and a wish to be better informed. Beyond that we welcome ideas and suggestions from members. To encourage younger members the Society offers free associate membership to anyone up to the age of twenty-five.

Membership

Application forms may be obtained from the Hon Treasurer and are also to be found on the Society’s website: www.leedsphilandlit.org.uk

History

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 Society’s aim and purpose

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”.

Grants

Each year the Society allocates a sum for grants to individuals or organisations for projects within its sphere of reference. Applications are welcome and can be submitted to the Assistant Secretary: n.madill@tiscali.co.uk Further details can be found on page 6.

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[Thanks are due to Dr Tony North for his work on preparing the Annual Review]

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 Professor G E Blair BSc, PhD, FRSB, FLS

Vice-President Dr C J Hatton BSc, PhD, FInstP

Treasurer I W Smith Hon F Leeds CM

Secretary Michael Meadowcroft

Other Council members J Douglas BA, MA
Dr K Hall (Co-opted on 20/1/22)
Dr R Jakeways BSc, PhD, MInstP
Professor P Millner (Co-opted on 20/1/22)
Ms J Mitchell (Co-opted on 20/1/22)
Hon. Ald. E Nash
B Selby
Dr M Staniforth (Co-opted on 20/1/22)
Emeritus Professor C M Taylor BSc (Eng.)
MSc, PhD, DEng, FEng, FIMechE, FCGI (Retired 9/12/ 2021)
Professor D Westhead MA, PhD (Retired 9/12/2021)

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

Website 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 2021-2022 ANNUAL REPORT FOR 2021-2022

The Council presents its report and financial statements for the year ended 30 September 2022. 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 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 considers 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 (via Zoom) on 9th December 2021 Professor Blair, Ms J Douglas and Mr I W Smith were re-appointed to Council. Two members retired at the same time, Emeritus Professor C M Taylor, who diligently served the Council as Treasurer on two occasions, and Professor David Westhead. Dr Kersten Hall, Professor Paul Millner, Ms Jane Mitchell, and Dr Martin Staniforth were co-opted to Council on the 20th of January 2022.

The Officers of the Society are elected by and from the members of Council. At the 2021 AGM, G E Blair, J Douglas and I W Smith were re-appointed to Council.

Council met on six occasions during 2021-2022 by Zoom. Parts of its business were delegated to the following committees: Grants, Events, Exhibition and Museums, chaired respectively by Dr C Hatton, Professor D Westhead, J Douglas, and B Selby. 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 N Madill has continued as Assistant Secretary, managing the Society's links with its members and other necessary administrative matters. P Bourke commenced his first year as the Assistant Treasurer, administering the day-to-day financial transactions of the Society including applications for membership. Dr R Unsworth continued in her role of Events Secretary.

MEMBERSHIP

During the 2021/2022 year, the Society lost seven members (through death & resignations) and gained forty-one new members.

At the end of September membership totalled 188 including 18 associate members.

It is noted that Dr John Lydon and Professor Anthony North were awarded Honorary Life Membership in January 2021.

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
- Maintaining a detailed web site including live lectures, histories, and forthcoming events

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, and in offices in the Leeds Museum in Cookridge Street where they are available for public consultation.

The Society is looking to recruit an Honorary Librarian. Applications are welcome from members of LPLS, or individuals with an interest in joining the Society. Experience of working within an academic library would be an advantage. Full details are available on the Society's website.

ACHIEVEMENTS AND PERFORMANCE

The Society's Events October 2021 – September 2022

11 October Gabriela Arriagada Bruneau, University of Leeds: 'Artificial Intelligence PART 2 - 'Machine ethics, Data ethics, Robot-human interaction'

1 November The Priestley Lecture Professor Cath Noakes, University of Leeds: 'The air we breathe - How understanding of disease transmission has evolved during COVID-19 & the role of ventilation in reducing risk'

17 November Professor Nicholas Tosca, University of Cambridge: 'The Mars 2020 Perseverance Rover and the search for ancient life on Mars'

- 2 December Dr Rachael Unsworth: ‘Leeds in 1821 – two hundred years since the opening of the Philosophical Hall’
- 20 January Michael Meadowcroft: ‘One Yorkshire – devolution or division’
- 16 February Professor Steve Westland, University of Leeds: ‘Does colour exist?’
- 1 March Dr David Hopes, Leeds Museums & Galleries:
‘Thinking ahead about presenting the past’
- 12 March Science Fair, Leeds City Museum
- 28 March Dr Vlad Strukov, University of Leeds:
‘Russian invasion of Ukraine: critical reflections at a time of crisis’
- 9 May David Hart and Shirley-Anne Sherriff: ‘From West Yorkshire wool to global multi-fibre business - shifts in power & environmental impacts’
- 14 June Dr Kersten Hall, University of Leeds: ‘one hundred Years of Insulin: from ‘Thick Brown Muck’ to ‘Wall Street Gold’
- 20 July Professor Craig Jordan, University of Texas:
‘Tamoxifen Tales: suggestions for scientific survival’
- 5 September Georgina Ferry:
‘I think with my hands – Dorothy Hodgkin’s contributions to science’

Grants Awarded

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

- Cath Brooke, £1000 to facilitate Skippko Community Research Team sessions in the Leeds Local and Family History Library.
- Kerry Harker, £590 to support a second free newspaper about the East Leeds Pavilion.
- Edward Maughan-Carr, £500 to support an environmental/ecological art window gallery at 130 Vicar Lane.
- Paul Digby, £1000 to support the creation of a life size sculpture of a St James Hospital critical care nurse.
- Patrick Eyres, £1000 to support the publication of Atlantic Flowers by Leeds based New Arcadian Press.
- David Ward, £1000 towards community events as part of Leeds Opera Festival 2022.

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 comprises of representatives from the Council and the Leeds Museums Service. The new Director, David Hopes, was appointed. The President had meetings with Mr Hopes which provided 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 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 £12,376 and subscriptions and donations (including gift aid refund) to £5,054. The total value of the Society's investment portfolio (investments and cash held) decreased this year due to global recession affecting the stock market and now stands at £429,938 a decrease of £53968 (11.15%), compared with last year's 9.7% increase.

There were 6 grants awarded during the financial year, far fewer than usual due to a lack of suitable applications. The total grants sum awarded was £5,090.

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, especially due to the continuing economic downturn. 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 minimized by standard procedures for authorization 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, 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 10 November 2022 and signed on their behalf by

Professor Eric Blair (President)

Michael Meadowcroft (Secretary)

The year's finances at a glance - 2021-2022

We are required by law to set out our full finances in the prescribed form. The Society's detailed accounts may be viewed on the Companies House web site [LEEDS PHILOSOPHICAL AND LITERARY SOCIETY LIMITED filing history - Find and update company information - GOV.UK \(company-information.service.gov.uk\)](https://www.gov.uk/government/organisations/companies-house) or a copy can be posted to you upon request to the Society.

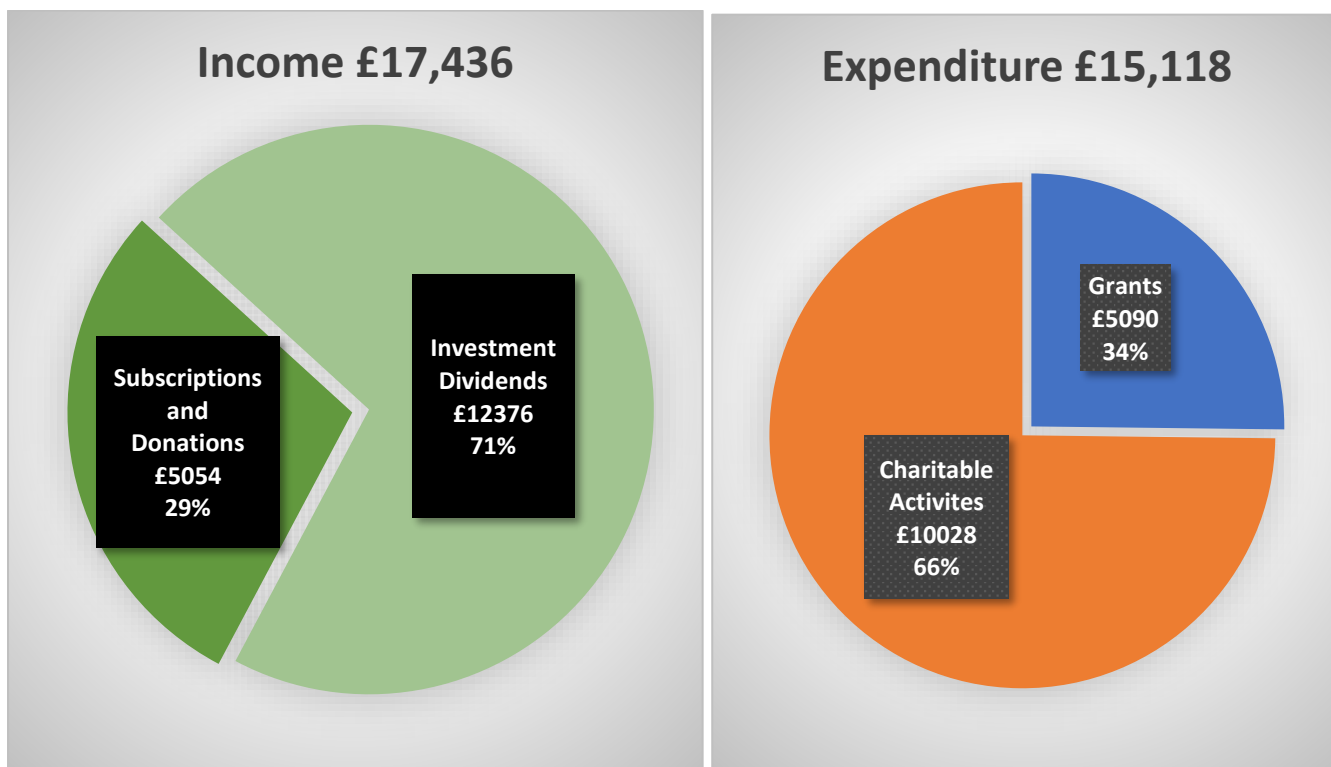
It may, however, be helpful to set the Society's finances during the financial year in a different context. The Society sets a broad budgetary aim of funding its grants, events and administration from subscription and dividend income during any financial year. To this end a budget is drawn up and approved 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 2021-2022 financial year are presented below. The data are based upon accounts of the Society as presented. 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.

The overall effects of Covid pandemic have continued to impact on Dividends from investments within the financial year; Subscriptions and Donations (including gift aid) have increased due to additional members joining the society, a noticeable benefit from our new web site investment.

This year's income therefore exceeds expenditure, due primarily to low applications for grants.

In 2021-22 six grants were awarded to outside bodies and individuals.

Warren Smith (Treasurer)



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 Lydon, Dr J E
Moxon, I S North, Professor A C T

Subscribing Members, as at 31.12.2022

Andrews, Mrs G	Cruse, J	Jurica, Miss J
Andrews, Professor R A	de Pauw, Dr K	King, Dr M H
Bailey, Ms L	de Pennington, Mrs J	Knapp, Dr D G
Barker, Ms J	Dodson, Mrs H I	Kulkarni, P *
Bartlett, Mx K *	Douglas, Ms J	Lance, Professor C E
Bassant, M	Drewett, Dr R	Larkin, B
Beddows, Professor C G	Drife, Dr D	Lawson, P W G
Beeks, Ms D	Eastabrook, Ms G	Lewis, Dr E L V
Best, Ms N	El-Hassani, M R	Lightman, Mrs E
Blair, Professor G E	Evans, Ms L	Lynch, Ms K
Blair, Dr M	Eyres, Dr P J	Lyth, Mrs R
Blanchard, C	Farmer, P J	McAra, Mrs J
Bolton-Gabrielsen, S	Fletcher, Dr C R	McCleery, Dr I
Bower, Dr D I	Freeman, J	McDonnell, E *
Bradford, Mrs E J	Gibson, Ms N	McTurk, Professor R
Bradford, J M	Gillett, P	Madill, N
Briggs, M	Gilliland, A	Maguire, Ms K
Briggs, Miss S *	Golphin, Dr P	Maniarasan, Miss H *
Britten, E A	Gott, Ms H	Marchant, Dr P
Brooke, Miss C	Grady, Dr K	Meadowcroft, M
Brown, Mrs C	Gulliford-Knight, E *	Meredith, Professor P
Bushby, Professor R J	Hall, E *	Mill, Dr P J
Butcher, D	Hall, Dr K	Millner, Professor P A
Butlin, Professor R K	Hammond, Dr C	Mills, Dr P
Byde, Dr C	Hann, Professor M A	Minkin, Mrs E
Chadwick, Mrs A L	Harker, Dr K	Mitchell, Ms J
Chadwick, P R P	Harrison, Mrs H	Morgan, C J
Chesters, Dr M S	Harrison, M R	Morgan, Professor G J
Childs, Professor W R	Hatton, Dr C J	Müller, A E W
Clark, Mrs E A	Henderson, Professor P J F	Murphy, K
Clarke, Ms S	Higgins, Dr S J	Nash, Ald. E A
Clifton, Miss H *	Hill, G	Oakshott, Ms J, MBE
Collins, C J	Hindmarch, Professor I	Ogden, J
Conaboy, A	Holdstock, Dr C R	Parry, M *
Connor-Watson, F *	Hollings, Dr C	Parsons, A
Cook, Professor G	Hope, Professor T E J	Parsons, Mrs A
Covic, Ms J	Howard, D	Paterson, Dr A
Cox, S	Jackson, Miss A *	Peat, Dr D W
Crabbe, Dr D	Jakeways, Dr R	Pheby, Dr H
Crosswell, R	Jenkins, Professor E W	Pickering, Dr O S

Powell, M	Shaw, K	Trower, H *
Radford, Dr A	Slomson, Dr A	Turney, Dr J
Rastall, Professor G R	Smith, D	Unsworth, Dr R
Rawnsley, Dr S J	Smith, W	Wade, R
Raynor, Professor D K Theo	Staniforth, Dr M	Wain, G
Reeves, Ms R, MP	Stephenson, Mrs A	Wainwright, M
Reynolds, P	Stevens, Miss E *	Wainwright, Mrs P
Richardson, Professor B F	Sutcliffe, Miss A *	Watson, Professor A A
Rivlin, Dr M	Sutcliffe, J R	Webster, I C
Roberts, Professor K J	Suter, Mrs P A	Webster, Professor W
Robinson, M	Sutton, Dr S L	Wesley, Mrs J
Robson, Ms R M	Swire, Ms L M P	West, A
Roche, Mrs G M	Tannett, P G	Westhead, Professor D R
Rushton, Professor J G	Taylor, A	Westland, Professor S
Salinger, Dr D	Taylor, Professor C M	Wilson, Miss C A
Sargent, D *	Temple, Mrs M	Winn, P
Savage, Professor M D	Thomas, Miss B *	Winter, Miss S *
Sayer, Professor K	Thornton, Dr D	Wood Robinson, Mrs V
Seaward, Professor M R D	Tierney, D *	Woodhead, Miss S
Selby, B	Timbers, Ms G	Wright, Dr P G
Sellers, D	Trent, M	

* Designates Associate Member

We note with regret that 3 Society members died during the year: Mr W F Archenhold, Dr M Dagg and Dr D B Sellen

Current Members of Council

President	Professor Eric Blair
Vice-president	Dr Martin Staniforth
Treasurer	Mr Warren Smith
Secretary	Mr Michael Meadowcroft
	Ms Janet Douglas
	Dr Kersten Hall
	Dr Christine Holdstock
	Professor Paul Millner
	Ms Jane Mitchell
	Ald. Elizabeth Nash
	Mr Brian Selby
	Professor Wendy Webster

Events Secretary	Dr Rachael Unsworth
Assistant Secretary	Mr Norman Madill
Assistant Treasurer	Mr Pat Bourke
Website Consultant	Ms Nina Best

Reports of Events held during 2022

Editor's note: the events described below cover the calendar year 2022 and therefore differ from those listed in the Annual Report section of the Review, which are for the financial year 1 Oct. 2021 to 30 Sept. 2022. Events for Oct.-Dec. 2021 were reported in the Annual Review for 2021.

Devolution or Division? Exploring the relationship between central and local government in the UK's largest county Michael Meadowcroft 20 January 2022

Which elements of society and economy should be organised at the highest level of the nation state and what should be devolved to lower levels? Is the prospect of ‘**One Yorkshire**’ devolution desirable and practicable? <https://oneyorkshire.org/>

Nearly five and a half million people live within the county that comprises eleven per cent of the land area of England. Yorkshire has roughly the same population as Scotland. Yet Scotland has a high level of devolution, whereas Yorkshire does not. (Admittedly Scotland evolved and retained various quite separate systems such as education and law.) During the late twentieth century, a process of evidence gathering was undertaken that produced ideas on which to base the constitutional arrangement for Scotland. Could there be a similar ‘constitutional convention’ for the 22 local authority areas that make up Yorkshire?

Michael Meadowcroft, journalist and author specialising in British politics (as well as being honorary secretary of the Phil. & Lit.), summarised the way local government’s role has changed over the decades and how powers have been eroded. He made a case for stronger devolved powers at the level of the whole of Yorkshire.

A **fine 1577 map of Yorkshire** showed the 3 ridings (thirdings) with York in the centre. The boundaries to west, north and east are strongly delineated geologically/geographically: the Pennines, the River Tees and the coast. Although this old-established county did lose some elements in the 1974 re-drawing of county boundaries, it remains essentially recognisable. The extensive core area has strong continuity over the centuries. Yorkshire people continue to have a particularly strong sense of their own identity – as revealed in a 2018 survey: <https://www.oldmapsonline.org/map/britishlibrary/001ROY000018D03U00061000>

Michael argues that there is a history of independence, of strong local government. By the middle of the twentieth century, Leeds City Council was responsible for utilities (gas, electricity, water), transport, local hospitals, most social security, further education, some higher education and emergency services. Many services and interventions were put in place from 1835 onwards as a result of the local authority getting Bills passed by parliament to enable the raising of local finance – powers that are essential to give substance to the notion of self-determination.

The responsibilities and powers of local authorities have nearly all been taken away since the late twentieth century, through either privatisation or centralisation. Local government retains few statutory responsibilities – only education services, children's safeguarding and social care, adult social care, domestic waste collection, planning and housing services, road maintenance and library services. Erosion of local government accelerated from 2010, with reduced local budgets limiting even what the remaining services could achieve, while central control has

grown. Instead of strong local democracy we have a range of appointed and much less accountable bodies.

Now, ironically, central government even decides on the form of devolution. There is an elected mayor in South Yorkshire and one in West Yorkshire, while the whole of North Yorkshire has become one authority with established boroughs such as Harrogate and Scarborough reduced to the status of parishes.

The proposal on offer to the North East in 2004 amounted to taking powers **up** from local authorities not bringing them **down** from central government. It was adding nothing at the higher level while taking away from the lower one.

The West Yorkshire Combined Authority consists of ten members, all appointed by political parties, not directly elected by the local people. Assets and services also have appointed boards to run them.

A Yorkshire-wide authority, with cities and towns running their own affairs below this level, would restore proper autonomy and encourage locals, and those who have made a decision to move to Yorkshire for its quality of life, to be more involved in political life.

At the end of the talk, Michael responded to several questions, including: Why not devolution for ‘The North’ as a whole? Various ideas have been promoted: ‘Council for the North’, Northern Way, Northern Powerhouse. These have failed to catch on. The geography is perhaps too far-flung and there’s insufficient coherence. The agenda was always relatively narrowly focused on economic growth.

Michael stressed that there is no need for uniformity across England on devolution deals. Other areas may wish to have city regions or remain in the same relation to the centre. He pointed out that the upper house of the parliament in Germany is composed of elected representatives from the Länder, or ‘counties’. This a system with both strong devolution and with regional input to national debates and legislation.

During his talk, Michael referred to this report as a particularly worthwhile resource:

<https://www.ippr.org/publication/state-of-the-north-2021-22-powering-northern-excellence>

	Square miles	Square kilometres	Population 2021
East Yorkshire	956	2,476	602,327
North Yorkshire	3,341	8,653	1,110,135
West Yorkshire	783	2,028	2,345,235
South Yorkshire	599	1,551	1,415,054
TOTAL	5,679	14,708	5,472,751
<i>England</i>	<i>50,300</i>	<i>130,279</i>	<i>56,489,800</i>

<https://www.statista.com/statistics/971694/county-population-england/>

Yorkshire is bigger than Qatar, Lebanon or Jamaica. It’s roughly the size of East Timor.

Rachael Unsworth

‘Does Colour exist?’ Professor Stephen Westland

16 February 2022

Stephen Westland, Professor of Colour Science at the University of Leeds, teaches and researches on many aspects of colour including colour ontology, colour design, colour imaging and the use of colour in textiles, automotive industry, cosmetics and dentistry. He has published over 200 peer-reviewed articles and several text books and is currently a member of the Colour Literacy Project.

Professor Westland started by answering the question in his title: “Does Colour exist?” The short answer is “Yes”, but said he was going to give a longer answer and talk about “Is colour a property of the world or is it simply our response to properties in the world?” People have been studying this for a very long time. Both Democritus and Newton stated in different ways that the colour is not a property of light but it is our perceptual response to light. A definition that Professor Westland likes is “Light of different wavelengths produces different perceptions of colour”. The everyday experience is that it seems as if things are coloured. For example, a banana is yellow. He showed a video which demonstrates the misunderstandings that many people have. When we look at a yellow lemon on a screen we are seeing “fake yellow”, because the screen “only emits red, green and blue light”.

Professor Westland introduced four axioms that one would have to believe for this view to be true, and said that he intended to show, with measurements and data, that all these axioms are false and what should replace them. He noted that when he refers to e.g. red light he should say “light at wavelengths that look red to us” but he will use “red light” for brevity.

First axiom

A1: Light is coloured

Various examples of colours appear different in different surroundings, or depending on how long we look at them. In his opinion “Colour is produced in the brain in response to light which it receives through the eye”.

When teaching, Professor Westland asks: How many colours are there? This produces a range of answers: zero, three, 16 million to an infinite number. However, when he asks “How many countries are there in the world?” this produces a much smaller range of answers because we all share a common understanding about what the word country means, but we don’t share a common understanding about what the word colour means.

It is almost universally accepted by scientists that colour is a perception. Most would conclude that colour is not an intrinsic property of light but is, at least, a relational property. Therefore axiom A1 should be replaced by:

B1 Light looks coloured (to us)

Professor Westland said that he has worked with many companies with many practical problems and none are interested in “physical colour”, only in “perceptual colour” i.e. what it looks like - he showed some examples.

Second axiom

A2: Coloured objects absorb all the wavelengths apart from those of a particular colour which they reflect

An instrument called a reflectance spectrophotometer can measure the percentage of light reflected by an object at each wavelength. When we measure a yellow dress, for example, we find it reflects about 85% of all the light above about 530 nanometres (nm), so it is reflecting most of the red, orange, yellow, and green wavelengths (similar to fig. C). Why does this dress look yellow at all if it's not reflecting just the yellow light? It is because the light reflected from the yellow dress produces identical cone responses in the human eye to spectral light of wavelengths that look yellow (fig. B). The yellow dyestuff that has been applied to the dress absorbs wavelengths of light from about 400nm to 530nm (mainly blue). So this second axiom A2 should be replaced by:

B2: Coloured objects tend to selectively absorb some wavelengths more than others; energy that is not absorbed is reflected or transmitted

Third axiom

A3: emissive devices (e.g. display screens) only emit red, green and blue light

If we were able to have a single wavelength red light and a single wavelength green light, shine these on a white wall, and overlap these we would see yellow. If we measured the light coming from this yellow it would consist of two wavelengths (red and green) but would look identical to light from a single wavelength yellow light. This is because the two yellow spots produce identical cone responses in the retina and hence are indistinguishable. The visual system has no way to detect between these wavelengths or even how many of these wavelengths are present. So a white light produced by three single wavelength red, green and blue lights looks the same as white produced by natural daylight which contains all the wavelengths from about 400nm to 700nm.

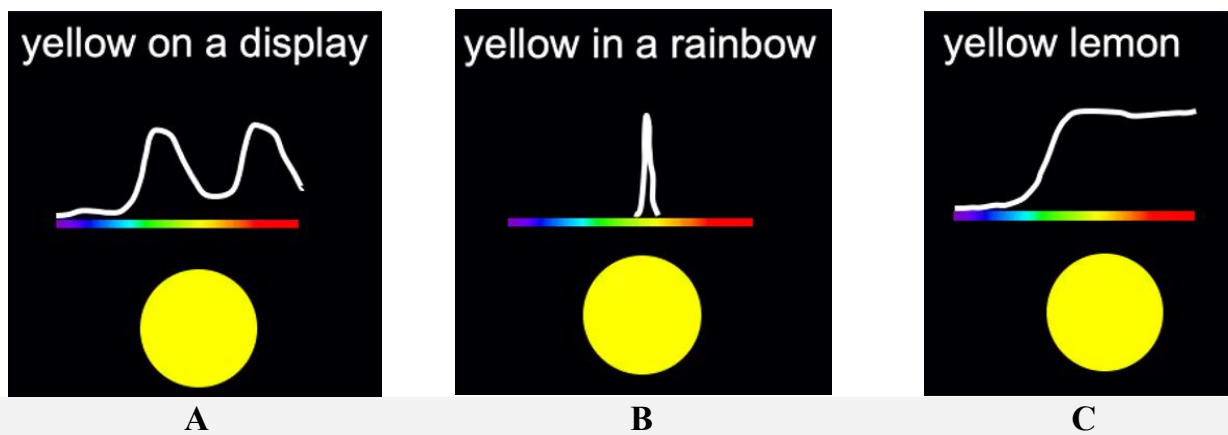
An instrument called a spectroradiometer can be used to measure the spectral distribution of all the wavelengths that are emitted from a screen. Professor Westland showed the results of some experiments done by his PhD students for a phone displaying a white screen. They found that the screen does not emit only red, green and blue light; it emits at all wavelengths with varying amounts, with peaks in the blue region, the green region and the red region, however some light is emitted from the screen in the yellow region at about 490nm. It is not true that screens only emit red light, green light, and blue light; they emit light that looks red, light that looks green and light that looks blue.

So axiom 3 should be changed to:

B3: Most displays emit light that looks red, green and blue to create a range of colours

4th axiom

A4: Some colours (e.g. yellow) generated on emissive devices are not real



Professor Westland showed in a diagram (above) the wavelengths of light from three differently produced yellows. All of these yellows are completely visually indistinguishable. Most people have three types of cone cells in their eyes, one type sensitive mainly to the short wavelengths (S), one sensitive to mainly the medium wavelengths (M) and one sensitive to mainly the long (L) wavelengths. All these three yellows activate the L and M wavelength cones very strongly and approximately to the same degree, and do not activate the S cones very much, and all three generate the same cone responses in us. There is no basis for believing that any one of these colours is more or less real than another.

Newton was probably the first person to create a hue circle. He observed that the hues at the long wavelength end of the rainbow spectrum (red) looked rather similar to the short wavelength end (violet) and if he bent the spectrum into a circle, there were some hues missing – the range of hues from red through magenta to purple and then to violet. These hues cannot be seen in the rainbow; they only occur with combinations of wavelengths, but that doesn't mean that they are any less real. It is not true to say that the spectrum contains all the colours. The spectrum contains all the visible wavelengths (the wavelengths that *look* coloured), but there are many colours that do not appear in the rainbow spectrum e.g. purple, brown, pink and beige. The vast majority of colours that we see in the world result from seeing combinations of wavelengths, which can be produced on a display or by physical objects. So axiom A4 can be replaced by:

B4: Colours whether seen with reflective objects or on emissive displays are perceptions

Professor Westland summarised by saying that these new axioms (the B axioms) are the ones that underpin contemporary understanding about colour and these should be the basis of teaching of colour at schools or universities. He showed that the statements on the BBC Bitesize revision notes about colour were wrong, but when he complained to the BBC they said this is what is in the GCSE syllabus. Professor Westland is part of a group called the Colour Literacy Project, which is supported by The Inter-Society Colour Council (ISCC) and the International Colour Association (AIC). The mission of this project is to “raise the level of common knowledge about colour in order to facilitate colour communication across disciplines and increase the awareness of the important role colour plays in our everyday lives”. They are working on a new syllabus to be taught at junior schools, to teach colour properly and avoid a lot of the misconceptions he has described.

Christine Holdstock

Thinking ahead about presenting the past Dr David Hopes

1 March 2022

David Hopes is Head of Service for Leeds Museums & Galleries. He was formerly Head of Collections and Interiors for the National Trust for Scotland (NTS) from 2016-2021 and, previous to this, Director of the Robert Burns Birthplace Museum in Alloway (also part of the NTS). He has over 20 years' experience as a curator working on a range of initiatives from the Open Museum's Pollok Kist Project to new-build capital projects such as MUSA (now the Wardlaw Museum, University of St Andrews) and Robert Burns Birthplace Museum (shortlisted for the Art Fund's Museum of the Year prize, 2011).

For a century from 1821, the Phil. & Lit. owned and ran Leeds Museum. The present-day Leeds Museums & Galleries service, run by Leeds City Council, has the Phil. and Lit.'s collection at its core but covers nine sites* and is operating in very different social, economic and environmental circumstances.

Since the early twenty-first century, the service has undergone hugely successful expansion and development. Carrying forward this momentum, and responding to the experience of the pandemic, in March 2022 the service published an ambitious new five-year strategic plan entitled '*Deepening Connections, Widening Impact: Leeds Museums & Galleries 2022-27*'.

David Hopes gave us a preview in early March about what makes this strategy different and where he hoped it would take the city's cultural offer, particularly during 2023, Leeds' Year of Culture. David included reflections on the process of forming the strategy, and on how his own background has helped shape the service's vision.

When David arrived in Leeds early in 2021, he was 'in listening mode' and made notes about everything that he encountered. Within two months he gave a review to colleagues of where he considered future efforts could most effectively be focused. After a meeting with senior management team in summer 2021, he had only six months to create the new strategy – to fit with other deadlines, including the Arts Council grant cycle.

He realised that much potential could be released by making more of what we've got. It's possible to amplify what's here and what's happening, and to contribute more to the city's overall objectives, especially through making more use of digital techniques.

Leeds Museums and Galleries is integral to helping bring about the wider city ambitions on inclusive growth, climate change (net zero carbon by 2030) and health and well-being. This means maximising positive impacts of engagement with existing and new audiences, and making best use of all resources, while actively working to reduce negative impacts of operations and the way visitors interact with all its sites. There are opportunities to influence behaviour and to be a leader in the sector – to have more and better impact within Leeds, the country and internationally. This is certainly not wallowing in the past; it's about using even better the various elements of our heritage sites and collections to contribute to shaping the city's future.

Ambitions include digitally-enabled and more thorough research, for instance, on who **is** and who **isn't** visiting, and encouraging visitors to explore sites that they haven't yet experienced. Already, MYLearning.org, run by Museums Yorkshire, has proved popular with local schools but also more widely. During 2023, a powerful new resource will open up: a database giving access to information about all 1.3m objects in the city's collections, searchable by anyone,

from anywhere. Digital techniques will also be used to expand and enhance visitor experiences. For instance, twelfth century Kirkstall Abbey will be experienced using twenty-first century innovations in ‘immersive technology’. At Armley and Thwaite Mills, links between industry and the environment are to be emphasised more strongly and there is potential for water power to be harnessed in new ways.

The city’s picture library has been running since the 1960s – allowing households to borrow assets. Might hotel partners participate in ‘Sleeping with Art’? Guests who enjoy an artwork in their room might be encouraged to be visitors and donors to Leeds Museums and Galleries. Expanding educational reach will include a greater focus on early years, home-educated families and teacher training.

Efforts will be made to diversify the workforce, strengthen action to combat racism and address colonial histories. There will be an active approach to filling gaps in the civic collection such as LGBTQ+ in Leeds. Audible signage is to be trialled at Kirkstall, using a system called Navilens, developed by Leeds-based CDS.

The new development manager’s tasks include creating a fund-raising strategy, applying for substantial grants, setting up a development foundation (a charity to raise funds for large capital projects) and finding smart ways to encourage both individual giving and corporate sponsorship.

A new commercial strategy will find ways to boost income beyond core funding from the Council and Arts Council England, and takings from retail, admissions and catering, while trimming costs wherever possible.

Work is under way on making the cluster of cultural facilities – Central Library, Art Gallery and Henry Moore Institute – more approachable and coherent, with enhanced use of available accommodation. Staff will have freedom within a broad framework to be creative and collaborative in realising these ambitions.

In developing the strategy, David drew on ‘grounded theory’ – using what’s already there – which he explored in his PhD research between 2011 and 2014. He also drew a parallel with writing a book review: learn about the author first, be aware of their world view and it will help you be more aware of your own when writing. He is also inspired by fellow Scot, physicist Lord Kelvin, to be solidly based in evidence: “without a knowledge of numbers we have a meagre grasp on a subject”. Opportunities, requirements and progress all need to be quantified. This is not a substitute for qualitative work but a vital basis for decision-making. Research should be practically-orientated, especially to help with fund-raising.

David is acutely aware of the need to protect the strengths of the service now in his care. He is also, though, daring to challenge and modernise aspects of the service. President Eric Blair concluded by assuring David that the Phil. & Lit. is fully committed to contributing towards making the outcomes of the strategy a reality.

*Leeds City Museum, Leeds Art Gallery, Leeds Discovery Centre, Kirkstall Abbey, Abbey House Museum, Armley Mills, Thwaite Watermill, Temple Newsam, Lotherton Hall

Rachael Unsworth

The Russian Invasion of Ukraine: critical reflections at the time of crisis Dr Vlad Strukov

28 March 2022

Vlad Strukov is a London-based multidisciplinary researcher, curator, and cultural practitioner, specializing in art, media, and technology cross-overs. He is an Associate Professor in Film and Digital Culture, University of Leeds, working on global visual cultures. His major research project, funded by the Swedish Research Council, is on contemporary queer visual culture. He is the author of many research publications, including volumes 'Memory and Securitization in Contemporary Europe', and 'Popular Geopolitics: Plotting an Evolving Interdiscipline'.

The Phil. and Lit. was very fortunate to have a thoughtful and expert academic at the University of Leeds able to give the Society a highly topical lecture on the Russian invasion of Ukraine, including many personal insights. Reporting of this lecture needed to take note of possible consequences for those on the frontline. Because of these sensitivities, the recording of the talk was not added to the Society's website.

Dr Strukov began by pointing out that the present conflict was different from that of 2014 in that then virtually all comments were from outside the areas attacked whereas now there are constant voices from within Ukraine. Events are happening so quickly on the spot that it is almost impossible to keep up. Certainly, the early "peace" talks were clearly poisoned. The dispute being over land and its borders, he quoted with approval Suhaiymah Manzoor Khan's saying that the nation state is "inherently violent" (*Resisting Systems of Violence*, Institute of Contemporary Arts, 2019).

He described how he became 'Russian'. He lived within the Russian Federation for eighteen years following the dissolution of the Soviet Union in 1991 and was consequently automatically given Russian citizenship. His problem of identity was further complicated by being born in Voronezh which is within Russia. He pointed out that historically there were parts of the Soviet Union that crossed 'national' borders. One such was the 'Pale of Settlement' – the only part of the Russian Empire in which Jews were permitted to live. Dr Strukov pointed out that there were many different communities in Soviet era Russia, including religious groups: Buddhists, Muslims, Jews, Christians and Pagans, all as a consequence of Imperial Russia. Thus present day Russia is not monolithic.

What, he asked, was the purpose of the Russian invasion of Ukraine, which, in the words of a New York professor, was "suicide"? It was irrational and a de facto war against the West. Why Ukraine? Zbigniew Brzezinski, advisor to two US Presidents and a respected diplomat, made the perceptive comment in 1994 that a "healthy and stable Ukraine is a critical counterweight to Russian power" and that "Russia needs Ukraine in order to be an empire". There are also practical considerations, including the gas and oil pipelines crossing Ukraine. In cultural terms Kyiv is the seat of Eastern Orthodoxy and has a key role in the development of Russia into a religious state. In this context Putin's open religiosity is significant. There is a danger of a Russian crusade to regain its place as the orthodox religious centre. Ideology is also an important factor, with Russia appearing to embrace 'modernisation through de-westernisation' and hence the war against the west.

Symbols are important to Putin, hence the ‘Z’ used increasingly to show support for Russia; Dr Strukov likened the use of such a symbol to the Ku Klux Klan in the USA or to the concepts in D W Griffith’s 1915 film *‘Birth of a Nation’*. For Putin and his supporters nothing has changed from Soviet times and nor has it for poor communities. Life in Russia is now very black and white: (un)available, (im)possible and (irr)econcilable.

Russian society is in layers from the oligarchs down to the poor. The division could be as great as 20 per cent at the top and 80 per cent at the bottom. However, despite economic and political constraints, there is still much innovation. For instance, the Garage Museum of Contemporary Art in Moscow demonstrates diversity and novelty but is now closed and cannot continue in the present circumstances. There is also Mikhail Dobrovolski, an artist who uses his images to combat masculinity and violence. His exhibition, due to take place in February 2022, could not go ahead. His view is that domestic violence is seen as endemic and not viewed as such in terms of the war. Because of its symbolism he had no market. Russian culture is to be respected and has a current relevance; we have gone from Dostoyevsky to a Tolstoy phase. For himself, Dr Strokov also saw relevance in Mikhail Bulgakov’s books of cats!

Dr Strukov’s talk sparked a number of questions. These included a reference to Francis Fukiyama’s book, *‘The End of History’*. Dr Strukov believed that the author had been far too complacent. The former Soviet Union republics had acquired capitalism but not democracy. Thatcher was a cult image to many Russians including her espousal of the infamous Section 28 forbidding teaching that promoted homosexuality. Professor Blair commented that religion played a significant role in the region: Poland is Catholic, Russia is Orthodox and it would be difficult in many countries for someone to say, as Nick Clegg had done, that he is an atheist. Strukov commented that in its own way communism had been a religion.

Strukov was asked what was the difference between Georgia, Chechnya and Ukraine in Russian eyes? Strukov countered by asking why the view of the West was also different in its attitude to the different struggles. Ukraine had captured the attention of the West. Michael Meadowcroft commented that the cases of Crimea and of parts of the Donbass were problematic in that they were dominantly Russian in language and history. The drawing of borders has produced problems throughout history. He compared Putin’s talk of bringing all Russians within the Russian Republic to Hitler’s ‘excuse’ for uniting Sudetenland and Austria within one Germanic state.

Janet Douglas reminded the audience that borders often change and individuals find themselves ‘transferred’ from one nationality to another. Dr Strukov mentioned that DNA testing was liable to produce a curious and sometimes dangerous mix of ancestry. Chris Hatton told of his great grandfather’s emigration trek over a great distance and also stressed the important connection between faith and buildings. Their actions in Ukraine suggested that the Russians lacked faith. Dr Strukov drew a distinction between religiosity and religion which clearly led to buildings being shelled indiscriminately. Professor Blair thanked Dr Strukov warmly for his highly instructive lecture that had assisted our understanding of the current situation.

Michael Meadowcroft

From West Yorkshire wool to global multi-fibre business: shifts in power & environmental impacts David Hart & Shirley-Anne Sherriff
9 May 2022

David Hart is a graduate of the University of Cambridge and Shirley-Anne Sherriff of the University of Cape Town. Both have occupied senior management positions in the chemical fibres industry within a number of countries. They subsequently moved into business consultancy working with two main kinds of clients across Asia, Greater Europe and the Americas: leading fibre/textile companies and also international fibre organisations, trade bodies and charitable foundations. They are acknowledged industry experts in end-use modelling to project business dynamics and guide market development.

The textile sector is arguably already the largest manufacturing industry in the world, incorporating not just apparel but also the huge household and industrial textile markets. How has the sector changed – fibres, fabric, production methods and patterns of supply? Can the world sustain a rate of increase in textile production sufficient to bring everyone up to the typical consumption levels of richer countries? If not, can the consumption patterns be sufficiently transformed? These were the big questions addressed by textile market consultants David Hart and Shirley-Anne Sherriff in their compellingly coherent overview, drawing on several decades of work in this sector.

Changing nature and patterns of supply

David's career has spanned the era since the tail end of 'mule' spinning in the Lancashire cotton industry in the 1960s. By the 1970s, the best staple fibre spinning machines had reached 12,000rpm. But the emergence of open end (air vortex) systems from the 1980s then delivered massive productivity increases in staple fibre spinning – up to 12.5 times faster than traditional ring spinning. Synthetic filament yarn systems are even faster: molten polymer is pushed through a spinneret – like a spider extruding its thread – and can be wound at a rate of 5000 metres per minute, a pace that would have been well beyond the imagining of a woman at a spinning wheel in a Yorkshire hamlet.

Looms have also undergone radical change delivering huge increases in speed and productivity. Modern machines are wider, and use air or water jet propulsion of the weft threads, instead of traditional heavy shuttles, so output per loom is already up to 30 times greater than in the 1970s.

Outside conventional weaving and knitting technologies there has been huge growth in 'non-woven' textiles produced by technologies comparable with paper production. Non-woven fabrics are everywhere, and their share of overall textile output is growing. Think of nappies, medical textiles, wipes, linings, duvets and cushions, geo-textiles in transport infrastructure, filtration and insulation. With ultra-high-speed non-woven machines, it can take as little as 35 minutes to generate the same output as even a modern loom can produce in a week and non-woven technology continues to innovate with new products to challenge conventional textiles.

As recently as 1980, cotton was still king of the fibre world, accounting for a greater proportion of the global market than all other fibres combined. But by the 1990s, this was no longer the case, as so much expansion has come in areas where cotton doesn't have a role, consequently promoting the use of synthetics. Cotton retains around 25 per cent of global fibre markets and

does continue as a significant element of apparel activity. But expanding production of cotton has negative implications for land use and water consumption. Counter-intuitively, perhaps, this natural fibre also isn't as recyclable as synthetics.

The massive area of expansion is in filament polyester, which currently accounts for over 50% of global fibre consumption and is heading to comprise about 60 per cent by 2030. Polyester can be made cheaply and is highly versatile in both fibre format and end-use application.

Wool, by the way, now accounts for only about 1% of total global fibre output. This is a shocking statistic to hear in the place which had the biggest pre-industrial cloth market in the world and dominated industrial production of woollen cloth through the nineteenth century.

Britain (and Europe) has been left way behind as countries have 'fought viciously' for share of textile supply chains which have migrated relentlessly to Asia. Competition has spurred investment in sophisticated machinery in the early stages of the supply chain, so there are few people employed in a capital-intensive modern yarn or fabric factory. The downstream parts of the production chain are, by contrast, still very labour-intensive, and this is a key determinant of supply chain location. A synthetic yarn industry can be carried out in a place with high labour costs, but when it comes to assembling the final product, it's wage levels that largely dictate where these industries are located.

China accounted for 18 per cent of global textile manufacture in 1990; but in 2022, a massive 55 per cent of global textile manufacture is Chinese. China has, though, already passed through its low-cost era of hosting increasing amounts of garment manufacture and is now investing in higher productivity machinery and higher value textiles. Garment making – much of it controlled by Chinese companies – is going to parts of Asia where wage rates are lower. However, concerns around long-distance transport and political volatility suggest that some manufacturing might move back closer to consumers in other parts of the world.

In the next decade, global fibre demand is expected to *increase* by around 40 million tonnes – a greater volume than the *total* of global fibre output in 1990. Will this come about or will we learn ways to be less demanding in our per capita fibre consumption: make do with less, choose more hard-wearing options, put more 'round the loop again' with re-use and re-working of products, find novel ways to share products? Without significant changes in consumption patterns, the unacceptable footprint of the global textile industry will become even heavier.

Can the textile industry become sustainable enough fast enough?

It's estimated that between 2 per cent and 8 per cent of GHG emissions are accounted for by this industry. But there's more to sustainability than direct implications for climate change. Major concerns relate to demand for water, pollution beyond the emission of greenhouse gases, degradation of land, unacceptable labour practices, and waste management.

Focusing on waste: it's estimated that in richer markets 5-6 per cent of municipal (ie. household) waste comprises textiles. This is small compared with food, paper and plastics, but still a massive weight. A third of global annual output is being thrown away, just in the USA and EU, much of it going to landfill or being burned. Re-wear and re-use is still tiny by comparison with this profligate throughput. Taking old textiles and reworking into new textile goods again amounts to less than 1 per cent of all that's produced.

Clothing and other textiles contribute up to a third of micro-plastics contamination. The Microfibre Consortium is developing global standards to address the problem and to stimulate a shift towards fibre types and product formats that cause less pollution.

There are no good or bad fibres; there are good and bad ways of producing, processing, using and disposing of them. Cotton is perhaps surprisingly poor in terms of eco-costs, though there are difficulties behind the funding and methodology of life cycle analyses in this area. The Sustainable Apparel Coalition represents about 25 per cent of global retail apparel sales but these top companies admit that finding solutions to the conundrums is almost as elusive as looking for the Higgs Boson particle. Nevertheless, they are working on the ‘Higg Index’ to quantitatively compare the environmental impact of various textile products in consistent ways that make sense to consumers. However, many key environmental criteria that should be to the fore can be crowded out by the demand for minimum cost to the consumer.

The best immediate response is to consume less and wash garments less frequently so that textile products (not just apparel) last longer and are less resource-intensive in use. Garment rental has taken off amongst younger consumers and selling of second-hand garments is becoming more professional. Mending and altering are coming back in a small way. However, a downside of getting through significantly less fabric and fewer garments would be the inevitable reduction in jobs in parts of the world where this sector is a major source of employment.

Countering these positive moves towards sustainability is the phenomenon of Shein, a Chinese firm founded in 2008. Since then it’s turned into the largest online-only fashion firm and has taken more than a quarter of the US fast fashion market. Consumers are offered more than 2 million products a year. On top of the massive throughput of resources, the company has been challenged on quality, use of toxic chemicals and abuse of workers’ rights.

The only effective way to counter such environmentally negative trends is to create a global system of more responsible standards and practices, with monitoring and enforcement. There’s cause for some optimism, though it has to be admitted that there is a great need for a significant cultural shift amongst the majority of consumers. The fundamental human requirements to feed ourselves, meet energy needs and clothe ourselves in sustainable ways all deserve strategic planning and attention.

Rachael Unsworth

From ‘Thick Brown Muck’ to ‘Wall Street Gold’: 100 Years of Insulin **Dr Kersten Hall**
14 June 2022

Kersten Hall graduated from the University of Oxford with a degree in biochemistry and then came to the University of Leeds to study for a PhD. He used molecular biology to study how viruses evade the human immune system. He then worked as a Research Fellow in the School of Medicine at Leeds before becoming a Visiting Fellow in the School of Philosophy, Religion and History of Science. 2022 marked the centenary of the discovery of insulin, and Kersten’s interest in insulin was inspired by his own sudden diagnosis with type 1 diabetes just over ten years previously.

Before the discovery of the hormone insulin, a diagnosis of type 1 diabetes was a certain death sentence. Produced by the pancreas, insulin allows sugar in the blood to pass into tissues such as muscle where it is used as fuel. Diabetic patients, unable to produce insulin themselves, faced a steady slide into a fatal coma caused by the build-up of ketones, a toxic metabolic by-product. Doctors could only put their patients on a starvation diet to delay the inevitable.

But all this changed in January 1922 with the injection of what one clinician described as a preparation of ‘15cc of thick brown muck’, derived from the pancreas of a pig or a cow and which contained the life-saving hormone.

However, the landmark discovery that has saved countless lives was surrounded by controversy. It cannot simply be said that Canadian physician Fred Banting (1891-1941) and his boss at the University of Toronto, John Macleod (1876-1935), deserve all the credit. Yet they were awarded the 1923 Nobel Prize for Medicine. There was not even unalloyed delight for these two scientists: Banting was furious that he had to share the prize with Macleod, whom he considered unethical. Banting’s experiments in 1921 were carried out with a graduate student Charles Best (1899-1978), who was not cited. Macleod was sceptical about the quality of this work, yet without him, it would not have been presented in a timely and convincing way. (In his 1982 book, *The discovery of insulin*, Michael Bliss showed that the early experiments in 1921 were indeed far from robust.) Charles Best tried for years to establish what he saw as **his** rightful place as a pioneer. Yet, that first successful treatment of a human patient in 1922 was not by Banting but by James Collip (1892-1965), who prepared a purer version of insulin than Banting and Best had achieved. He did not receive due credit. Completely overlooked were other scientists – Europeans – who had been involved earlier. The award of the Nobel Prize for this massively important breakthrough marked the beginning not only of a revolution in life expectancy for diabetics but the start of decades of dispute. As Kersten put it: “this is a tale of monstrous egos and toxic career rivalry”. At the end of the talk he agreed that the Nobel Prize process has some intensely perverse consequences.

After these murky and acrimonious beginnings, a new era dawned at the end of the 1970s. Until this time, diabetic patients had been forced to manage their condition by injecting themselves with insulin recovered from cows or pigs as a by-product of the meat industry. A dramatic press conference in 1978 marked the beginning of a new era: scientists from Genentech, a new biotechnology company, announced that they had used the newly developed technology of genetic engineering to alter the DNA of a common gut bacterium so that it could now produce human insulin on an industrial scale. This had been achieved not only by overcoming formidable scientific challenges, but also fierce competition from two eminent academic laboratories as well as social and political opposition to the scary prospect of genetic engineering.

As a result of Genentech’s success, dealers on Wall Street recalled how the new company made such a spectacular debut when its shares went public on 14th October 1980 that by the end of the day’s trading, its two founders Bob Swanson and Herb Boyer were multi-millionaires. What is less well known is that two of the pillars on which Genentech built their success had their roots in a discovery made not in California but in 1940s Leeds. The first of these was the discovery that, as a protein, insulin is a long chain of amino acids linked together, rather like

chemical beads strung together to form a molecular necklace; the other is that DNA carries the information to string this necklace together. And both had their origins in studies of wool fibres.

By the twentieth century, the long history of woollen textiles in Yorkshire had led to much research being done here into the molecular structure of wool. Through his X-ray studies of wool fibres, William Astbury (1898-1961) had demonstrated that the proteins in wool are built from long chains of amino acids, while Archer Martin (1910-2002) and Richard Syngé (1914-1994), working at the Wool Industries Research Institute (WIRA), took this work even further to develop a method of chemical separation known as partition chromatography, which allowed the linear order, or 'sequence' of amino acids in a protein to be determined. Although Martin and Syngé had originally developed this method for the analysis of wool, its impact was to go much further. This gave Cambridge scientist Fred Sanger exactly what he needed to solve a problem with which he had been wrestling for some time: working out the order of amino acids in insulin. And when applied by the Columbia biochemist Erwin Chargaff to the analysis of DNA, partition chromatography offered the first hint at how the genetic message might be carried.

Martin and Syngé received the 1952 Nobel Prize in Chemistry for their work and, as part of their bicentennial celebrations in 2019, LPLS unveiled a commemorative plaque to them on the fragment that remains of WIRA on Headingley Lane. The insights from their work had allowed the Genentech scientists to synthesise the segment of human DNA that carries the instructions to make human insulin. Taking this approach gave them a crucial advantage over their academic competitors who, having adopted a very different strategy, were hamstrung by restrictive safeguards concerning genetic engineering work.

Kersten pointed to a whole additional complex set of questions relating to access to insulin: who produces, distributes, pays for, administers it and manages its effects? A whole structure of funding, manufacture, licencing, prescribing and monitoring of use had to be built around the scientific phenomenon.

And insulin alone – whether from cows, pigs or genetically altered bacteria – is not a cure for diabetes. It transforms what would otherwise be a fatal condition into a chronic one that can be managed, albeit for the potential of complications such as blindness, kidney damage and neuropathy. Anyone with diabetes needs insulin to survive, but thriving requires managing lifestyle, activity and diet.

In future, better control of diabetes may be achieved through an 'artificial pancreas' which monitors blood sugars and delivers an appropriate dose of insulin via a pump. Another treatment under development is 'smart insulin' which detects levels of sugar and responds appropriately. But as the first clinicians involved in trials of insulin back in the 1920s had recognised, technological solutions alone are often not enough. For such measures to be effective, they need to go hand in hand with appropriate behaviour on our part. This is perhaps even more true for type 2 diabetes in which, although the pancreas is still making insulin, the body is no longer responding to it – a condition that often arises from obesity, poor diet and lack of exercise. And as we face challenges such as global pandemics, climate change, and AI,

maybe the story of insulin has lessons for us all, whether or not we happen to be injecting ourselves with it.

Rachael Unsworth

‘Tamoxifen Tales’ Professor Craig Jordan

20th June 2022

Professor Jordan received BSc and PhD degrees in Pharmacology from the University of Leeds. He was also lecturer in Pharmacology here 1974-1979 and later he was awarded a DSc by his alma mater. He declares in the introduction to his recent book ‘Tamoxifen Tales’: “The University of Leeds changed my life in an exceptional and positive way”

Craig Jordan was born in Texas but his family moved to England when he was a child. Immediately after his studies at the University of Leeds he took up a post in Massachusetts and in 1979-80 he worked at a cancer research institute in Switzerland. Since 1980, his career has been within the USA: University of Wisconsin-Madison, Northwestern University (Chicago), Fox Chase Cancer Center in Philadelphia, Georgetown University (Washington, D.C.) and latterly at the University of Texas MD Anderson Cancer Center, Houston, Texas where he is Professor of Breast Medical Oncology and Professor of Molecular and Cellular Oncology.

In 2019 he was appointed Companion of the Most Distinguished Order of St. Michael and St. George by Queen Elizabeth II for services to women’s health.

After two years of online talks during SARS-Cov2, we had high hopes that Professor Craig Jordan might well be our first live in-person speaker. Once again, though, we were thwarted by Nature. Not a viral pandemic this time, but rather a sudden and ferocious heatwave that made rail travel impossible.

Unable to make the journey from London to Leeds, Professor Jordan gave his talk online but had it not been for a lucky escape as a child, he might well not have been able to give it at all. Having discovered a love of chemistry, aged only 12, he persuaded his mother to convert his bedroom into a laboratory – a decision which she probably regretted when Craig nearly killed himself with home-brewed chlorine gas.

Undeterred, Craig’s love of chemistry brought him to the University of Leeds, where he studied pharmacology as an undergraduate and then stayed on to carry out doctoral research that did not, initially at least, look very promising. The subject of his PhD was a drug which, despite being developed as a ‘morning-after-pill’, had been shown to have the opposite effect to that desired, by actually promoting ovulation. Far from being a dead end however, Craig’s research into what he described as ‘a failed contraceptive’ went on to transform medicine. When this compound was found to inhibit the growth of breast tumours, Craig went on to lead a research team at the University of Leeds devoted to discovering the molecular mechanism by which it did this. As a result of their work, this compound, once known by the rather uninspiring name of ICI 46474, is today better known as the anti-cancer drug Tamoxifen. Having saved the lives

of millions of women, it is included on the World Health Organisation's list of essential medicines.

After talking us through the discovery and development of Tamoxifen, Professor Jordan concluded with some valuable lessons for young scientists and their supervisors that I certainly wish I could have heard when I first started out at the lab bench. His words also reminded me of some advice offered by another local scientific pioneer, William Astbury: in early 1945 he urged the Vice Chancellor of the University of Leeds that "Leeds should be bold and help to lead the way" in the powerful new methods that were transforming biological sciences at the time. Thanks to Craig Jordan's work on Tamoxifen, Leeds has done just that.

Kersten Hall

Dorothy Hodgkin - 'I think with my hands' Georgina Ferry

7 September 2022

Georgina Ferry is a science writer, author and broadcaster. She has been a staff editor and feature writer on New Scientist, and a presenter of science programmes on BBC Radio. Her biography of Britain's only female Nobel-prizewinning scientist, "Dorothy Crowfoot Hodgkin: Patterns, Proteins and Peace", was reissued by Bloomsbury in 2019. She has published several further books on 20th and 21st-century science. She is a regular contributor of reviews, obituaries and features to publications including The Guardian, Nature and The Lancet.

During 2022, Leeds received national attention not only for having once been the home of the British Prime Minister serving a record-breaking short term in office but also, according to an article in 'The Observer', now being a weekend attraction for travellers from as far afield as London who make the journey north to take part in the fancy dress bacchanalia known as 'The Otley Run' pub crawl in Headingley.

But Leeds has other – perhaps more enduring – claims to fame, such as a scientific discovery that laid the foundations for the pioneering work of Dorothy Hodgkin (1910-1994), the Nobel Prize winning scientist who was the subject of this talk by her biographer, distinguished science writer Georgina Ferry.

In 1913, William Bragg, who was then Cavendish Professor of Physics at the University of Leeds, working with his son Lawrence, discovered that X-rays could do far more than simply revealing broken bones. Working long into the early hours in their laboratory at the University of Leeds, the Braggs showed how the scattering of X-rays could be used to determine the arrangement of atoms and molecules in a crystal.

Since then, twenty-eight Nobel Prizes have been won using the Braggs' method, known as X-ray crystallography. Of these, the 1964 Nobel Prize in Chemistry was awarded to Hodgkin for having solved the three-dimensional structure of both penicillin and Vitamin B12. For while the Braggs had restricted their method to explore the structure of simple materials such as ice and rock salt, Hodgkin had taken it to dizzying new heights by pioneering the application of

X-ray crystallography to solve the structure of important biological compounds. Of these, perhaps her greatest achievement came in 1969 when, having persevered for over 30 years, she finally succeeded in solving the crystal structure of the hormone insulin that is essential for the control of blood sugar.

Nor was science the only field in which Hodgkin blazed a trail. Having found a love of chemistry at an early age, she had to fight to be allowed to follow her passion at a school where girls were expected to be doing needlework instead of science. An early photograph, in which Hodgkin and one other girl can be seen at the back of a chemistry lab full of boys, shows that her campaign was successful. Yet even when she was awarded her Nobel Prize, she was described by the newspapers as an ‘affable-looking housewife’ whose achievement for ‘a thoroughly unhousewifely skill’ was reported with headlines such as ‘British woman wins Nobel prize - £18,750 award to mother of three.’

As well as pioneering the role of women in science, Hodgkin was also a passionate advocate of other political and social causes such as nuclear disarmament, the peace movement and promoting dialogue with the Soviet Union during the Cold War. Her visits to China in the wake of the Cultural Revolution inspired students there, and it has been suggested that it was Hodgkin’s influence on one of her former students, Margaret Thatcher, that led to engagement in dialogue with Mikhail Gorbachev.

Having had no live lectures for two years, firstly as a result of the Covid pandemic, and then a ferocious summer heatwave, it appeared that this trend was set to continue thanks to logistical railway hiccups doing their best to prevent Georgina from reaching us. Thankfully however, victory was snatched from the jaws of defeat with minutes to spare and, speaking to a full house at The Leeds Library, Georgina gave the first live, in-person LPLS presentation since early 2020. This was followed by lively discussion and questions which continued over a glass of wine afterwards – all very welcome after an afternoon of severely bitten nails.

Kersten Hall

The drawing by Dorothy Hodgkin is reproduced by permission of Georgina Ferry

The History of Photography and of Leeds Photographic Society Alan Parsons

11 Oct 2022

Alan Parsons joined the Leeds Photographic Society in 2019, having moved up to Leeds from Burton upon Trent. He initially trained as an industrial designer but from just after the turn of the millennium has had his own marketing and design business, designing websites and printed literature for companies large and small including the NHS, Mappin and Webb, British Waterways, Nottingham University and many others.

Leeds Photographic Society (LPS), the oldest in the world, was founded in 1852, before the Royal Photographic Society. After an enthusiastic but small-scale start, activity picked up in the 1880s as major developments in camera technology opened up photography to a wider

range of people. Members have always shared both the ever-evolving technology of photography and the images produced. Their programme continues to be a mix of illustrated talks, competitions and outings.

Alan Parsons started his appealingly illustrated talk with evidence that humans were making images way back in pre-historic times, perhaps even more than 70,000 years ago. Much historic imagery was sponsored by religious institutions and the oldest illuminated manuscripts are 4000 years old. There are tapestries from Egypt dated at c.1500BC. When it comes to direct antecedents of the photography and the images it can produce, historians point out that as long ago as the 4th century BC Chinese artists could project an image using what came to be known as a 'camera obscura'. This kind of technique was used in early 18th century Europe. With the addition of a lens, the image could be focused. Still, to create an enduring image required artistic ability.

Many skilled amateurs around Europe, such as Thomas Wedgwood (1771-1805), a son of Josiah, started experimenting with creating images on paper sensitised with silver salts. But such images became progressively darker and there was no way to 'fix' the image at a certain level of exposure.

French inventor Joseph Nicéphore Niépce (1765-1833) explored ways to create a permanent image and is credited with producing the first photograph that still survives. A drawback of his 'heliography' was that it took eight hours for the image to emerge and required some curious ingredients. (There may have been other earlier/better images of his or other experimenters that weren't saved.)

After Niépce's sudden death, Louise Daguerre (1787-1851) persisted with experimentation and eventually his pioneering product carried the name 'daguerreotype'. A thin silver-plated copper sheet was exposed to iodine vapours to produce a coating of light-sensitive silver iodide. The plate was then exposed in the camera. The process was speeded up by chemically developing the first faintly appearing 'latent' image. Daguerre declared: "I have seized the light – I have arrested its flight!" The technique was patented in 1839 and a photographer in Leeds had a licence as early as 1842.

Englishman Henry Fox Talbot (1800-1877), an FRS and polymath, was working in parallel. He invented a process for creating reasonably light-fast and permanent photographs. Waxed paper, a contribution from Gustave le Grey (1820-1884), made it easier to store images, which then kept better. This was still a wet plate process. Other pioneers sought a more stable, rapid and convenient process.

Along came sculptor Frederick Scott Archer (1813-1857). He used a glass plate coated with a new chemical mix which exposed rapidly. Sadly for him, he did not patent this technique and died penniless. The LPS, recognising the significance of the invention and feeling sympathy in the face of the tragedy, contributed over £18 towards supporting his family. Archer's process enabled a new phenomenon of itinerant photographers.

So, by the time the LPS was founded, there was a range of different techniques available but much invention still to come. Colour photography began early in the next decade and other innovations followed rapidly. Once photography no longer required dabbling with dangerous chemicals, more participants, including women, were drawn to ‘seizing light’.

John Eastman started using gelatin-treated paper and had the idea of making a long strip of paper and rolling it up to load into his box camera. Not all inventions are highly technical. Some are effective but dangerous, such as Hannibal Goodwin’s 1889 nitro-cellulose film.

1851 was the year when The Great Exhibition was held in London. It both reflected and stimulated enthusiasm for new ideas. It was also the year when photographic societies were started in both Paris and New York. Leeds was not far behind: LPS was announced on 27 March 1852, making it the oldest club in the UK. Many more followed in the next few years.

Early members such as Washington Teasdale, William Fieldhouse and William Ramsden took many photographs, made cameras and exhibited all over the country. A book was published in 1852 including work that was already under way before the Society was set up. Current members are trying to work out where early photos were taken. We were shown some intriguing pictures revealing both continuity and change in views taken in the mid-nineteenth century and the 2020s. Original members were all, by the way, already LPLS members. The specialism of photography blends a broad set of interests in science, technology and art.

When the Society revived from 1882 it was on a firmer basis: there were agreed criteria for membership, strict rules and record books that were scrupulously kept. The archives are at West Yorkshire Archives (Leeds) and the National Media Museum (Bradford). The LPS is grateful to the (slightly younger) LPLS for inviting our members to attend this lively presentation.

Rachael Unsworth

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

Attacks on Knowledge from Ancient Assyria to Ukraine – and how to protect knowledge in a digital world **Richard Ovenden**

1 November 2022 (held by Zoom)

Richard Ovenden OBE has held the traditional title of ‘Bodley’s Librarian’ at the University of Oxford since 2014. He is also Director of the Bodleian’s ‘Centre for the Study of the Book’ and published ‘*Burning the books*’ (John Murray) in 2021. He came to his current position via school in Kent, a degree at the University of Durham and positions at Durham University Library, the House of Lords Library, the National Library of Scotland and the University of Edinburgh, where he was responsible for Collection Management, Special Collections and Archives, and for the University Museums and Art Gallery. His move to Oxford came in 2003 when he was appointed Keeper of Special Collections and Western Manuscripts at the Bodleian Libraries, and in 2011 he became Deputy Librarian.

Richard Ovenden, the head of Oxford's Bodleian Library, was not in the end able to travel to Leeds to deliver this year's Priestley lecture, but the interest and importance of his subject, his relaxed speaking style, and the quality of his slides easily overrode the potential disadvantages of online presentation. He had several related purposes: to inform us about multiple instances of the burning of books and archives throughout history; to cheer us by describing remarkable cases of rescue in defiance of such destruction; to stress the importance for human society of the preservation of knowledge; and to raise questions about the safety of knowledge in the present-day digital world.

Knowledge in whatever form, we heard, has always been seen as a potential threat to authority, and the speaker began with recent examples of knowledge suppression: the destruction by the Taliban of libraries in Afghanistan, and the current targeting by the Russians, in occupied Donetsk, of material relating to Ukrainian independence. He even cited – though more as an instance of lack of foresight – the Home Office's destruction of files relating to the arrival of members of the Windrush generation, characterising the fall-out as a classic demonstration of why we need to preserve social knowledge.

Some of his examples of past acts of destruction were well known, such as the loss of the ancient library of Alexandria (although this is now thought to have been partly the result of neglect) and the despoliation of monastic libraries by Henry VIII's commissioners. A prime case here was the targeting of Glastonbury Abbey, of whose c. 2000 books no more than about seventy now survive. Less familiar were the destruction of the huge library of writings on clay tablets built up in ancient Assyria, lost along with the rest of the city of Nineveh, and the scandalous burning of the original Capitol building (and with it the Library of Congress) by the British naval expedition that attacked Washington in 1814. One of Richard Ovenden's cited acts of rescue was, in this last case, Thomas Jefferson's immediate offer of his own private library as a first step in the necessary restocking of the library.

With the 20th century, Richard Ovenden's case studies sadly multiplied. We heard about the destruction of Louvain university library by German forces in both world wars; the Nazis' highly organised public book burnings in May 1933, not restricted to Jewish books; the targeting, during the German attack on Vilnius in 1943, of the YIVO Institute's rich collections of material relating to Yiddish learning and culture; and the almost complete destruction by the Serbs of the Bosnia-Herzegovina national library in 1992. There were subsequent international contributions to rebuilding the Louvain and Sarajevo collections. The heroic attempt to save YIVO material was quite a different matter, in that members of staff (the 'Paper Brigade') forced to prepare the holdings for destruction, did all they could to smuggle documents out, at huge personal risk.

As for present and future digital knowledge, the big questions include who manages its preservation and who pays for it? The US Internet Archive and the UK's Web Archive are busy preserving what they can, concentrating on cultural materials and websites, but what about social media, vast amounts of social knowledge in the hands of private enterprise? What, for example, about Donald Trump's Twitter account? Is there a way of preserving its contents, fake news and all, before it is deleted? (Trump, as Richard Ovenden pointed out, is known to

have illegally removed government documents from the White House, and some of these may have been destroyed.) Fortunately, the Internet Archive managed to preserve evidence on the Parler website relating to the January 2021 attack on the Capitol before that website was taken down. In the case of the digital giants our speaker's proposed remedy, to raise funds to ensure preservation, was a 'memory tax' to be levied on them.

He finished, as befitted one of the country's leading librarians, with the declaration that libraries and archives (including in digital form) are reference points for truth and facts, places where knowledge can be verified, and agencies for preserving what is known about societies, individuals, and our collective history. Richard Ovenden's lecture, it should be said, was based on his book *Burning the Books: A History of Knowledge under Attack*, published in 2020 to great acclaim and now available in paperback. It was a privilege to have him as this year's Priestley Lecturer.

Oliver Pickering

***The Lost Houses of Hunslet* Steven Burt**

30 November 2022

Steven Burt was born and bred in Leeds and has extensive experience of communicating his enthusiasm for history and heritage through teaching, lecturing, leading guided tours, research, writing and broadcasting. His lifelong interest in the history of Leeds was recognised in 2008 when he became a finalist in Leeds Civic Trust's Spirit of Leeds Award. In 2010 his contribution to education was formally acknowledged when he received an Honorary Doctorate of Education from Leeds Metropolitan University.

On the last day of November 2022, I attended a brilliant history lecture given by Steven Burt at the Leeds City Museum on the lost houses and heritage of Hunslet - brilliant because of the amount of his research producing so many photographs of mansion houses, portraits of their owners and wives, and maps and plans of their estates.

In the 16th Century, Hunslet was the most desirable place for the very rich to live. It was then entirely rural with plenty of open land for their country parks with an unpolluted river for recreation. Most Hunslet people will have heard of Hunslet Hall, the first of its mansions, but none apart from the very elderly will have seen it. It was situated where the Salvation Army is now, on what is currently called Hunslet Hall Road. It was demolished by Leeds Corporation in 1933. Sadly, there are no drawings or photographs of it, but Peter Brears, a friend of Steven, has provided a drawing of a typical Tudor house of the time with a central door with double mullioned windows each side. A remarkable feature was a Prospect Room - a large turret with windows to enable the family and guests to survey and admire the surrounding park and countryside.

Hunslet Hall was occupied by the Neville Family (related to the Middleham and Raby Nevilles) until its fifth generation when John Neville in 1569 joined the "Rising of the North", a movement to overthrow Protestant Elizabeth I and replace her with Catholic Mary Queen of

Scots. His wife Lady Neville begged and pleaded with him not to do so, but headstrong John would not listen. The coup failed and Elizabeth's retribution was swift and terrible. Eight hundred were arrested and executed and their lands and property confiscated.

John escaped firstly to Scotland and then to the Continent. Lady Neville and her ten children were turned out of Hunslet Hall and were homeless and destitute. Lady Neville eventually joined her husband in Flanders. Hunslet Hall was sold and most of its land was divided into thirty plots, initially for tenant farming.

Eventually, there were twenty-four mansions in Hunslet mostly owned by mill owners and cloth manufacturers in the 17th, 18th and early 19th Centuries. The navigable River Aire, which flows into the Humber with its many tributaries, allowed export to other parts of the Country and to the Continent with cloth made from wool, then cotton and then flax, making their owners very wealthy. We were shown photographs of nearly all of the mansions with plans of their surrounding parks and portraits of their owners and family members.

There were three mansions which stood out for me because of anecdotes associated with them. Firstly, Sundial House on Hunslet Lane, of which we were shown drawings by Peter Brears, based on photographs before its demolition in the 1950's. For many years it was the home of the Goodman family who were so wealthy that they built a ballroom extension! Secondly, Leathley Lodge at the end of Leathley Lane with its extensive grounds. The Tsar of Russia stayed there in 1816. Thirdly, Brookfield House on Hunslet Road, owned by the Ingham family. Benjamin Ingham travelled to Sicily in 1806 where he discovered Marsala wine and he went into the production and exporting of it, which made him extremely wealthy. He paid for half of the cost of building St Mary the Virgin Church, of which its iconic and much-loved spire, the highest in Leeds, remains.

In the latter half of the 19th Century, the resident cloth mill owners were replaced by the owners of foundries, coal mines, smelting, engineering (primarily steam engines), glass works, potteries and breweries. At the same time, developers were building poor quality houses on the rural land for the new workforce in back-to-back terraces - not the back-to-back houses we know today in blocks of eight with toilet yards in between, but long streets with toilets at the end. The noise of manufacture and the pollution from coal-fired furnaces to drive machinery, together with the hundreds of domestic coal fires was intolerable to previous mansion owners who moved to the more salubrious parts of north Leeds. Their mansions were either converted into manufacturing establishments like Sundial House or fell into dilapidation or ruin.

For workers and their families, life was hell. Their houses were one up one down types, with no sanitation. If they did not die from the processes of manufacture and air pollution, disease was rife with overcrowding and close proximity to neighbours. Neville Chamberlain, who was the Chairman of the Government's Unhealthy Areas Committee, wrote in 1921 "The City of Leeds is perhaps confronted with the most difficult problem to be found in any of the provincial towns owing to the enormous number of back-to-back houses. There are 72,000 of which 33,000 are the oldest and worst...". Clearance of slum houses was difficult and slow, mainly due to lack of alternative accommodation but also as Leeds landlords objected to it. In 1930

wholesale demolition of unfit housing along Hunslet Road and Low Road did take place but this was due to road widening.

Of course, World War II held up slum clearance and it was not until the 1950`s that the worst houses were cleared. If there happened to be a dilapidated mansion house in the middle of the area, that was cleared too. Out of the 24 mansion houses in Hunslet there is just one left - Burton House on Burton Road, a splendid early Georgian House owned by the Busk family, shown on the back cover of this Review.

As a former councillor, I always argued that to preserve historic buildings they must have another use or they deteriorate further and can be a target for vandals. Burton House is a prime example of another use. In 1919 the Leeds Corporation bought Burton House to extend adjacent Cockburn School and we were shown a slide of children in the playground there. In 1981 it was acquired by Bellway Homes and converted into residential flats. It is good to know that Burton House once more has people living in it.

Much more information can be obtained from Steven Burt's "The Remarkable Story of Hunslet", a beautifully illustrated book for which he thanked the Leeds Philosophical & Literary Society for financial help without which the book would not have been published.

Is Hunslet today a desirable place to live? Steven Burt had asked Hunslet residents if this were the case and was given a resounding, "Yes".

Elizabeth Nash

Reports received by January 2023 on Grants awarded by the Society

Skippko Community Research Team

£1000 to Cath Brooke to facilitate sessions in the Leeds Local and Family History Library

Our grant was spent to support the Skippko Community Research Team including: Recording Leeds history, extending people's knowledge of arts, culture and heritage of Leeds, research for Skippko's project 'In the Waiting Room', presenting the research at an exhibition and publication, and visits to museums, galleries, archives. Over 6 months the group have been meeting to research and record stories of the NHS as part of Skippko's 'In the Waiting Room' project. Many personal tales and fascinating facts have been uncovered, through a trip to the Thackray Medical Museum and personal research. All the information gathered will be brought together into a 'Waiting Room' magazine publication and presented at an exhibition and performance at the end of June 22. A copy of the publication will be sent to the Leeds Philosophical and Literary Society. "It's been good to meet new people, and share ideas with them. The trip to the Thackray Museum was so interesting - thank you for organising that.

As always, the support from Skippko, and your team is so positive. The sessions and activities have provided an escape from 'normal life!'” “The Skippko project means a lot to me, I find it very interesting, and we can help with projects. I enjoy the sessions as it's very therapeutic for myself, sometimes I can't make it to the sessions due to other commitments. Thank you to the team for all their work and support.” Thanks to the support of Leeds Philosophical and Literary Society our Research Team have become well established and new members have joined. We've recently learnt that a further 6 sessions will be funded by the Arnold Clark Community Fund. We are in discussion with group members about future research with the possibility of publishing their work in a book, specifically for the Research Team. Given the success of the project following your funding and the enthusiastic personal investment in the work, Skippko will be maintaining support for the Research Team. This is part of ongoing efforts to create pockets of sustainable community creativity across the City of Leeds.



Cath Brooke

Leeds Opera Festival 2022

£1000 towards community events as part of the Opera Festival

Funding supported our additional events programme as part of the Leeds Opera Festival 2022. Predominantly funding supported our audio tour of Leeds Art Gallery. Working with volunteers from the Gallery's 'Meet and Make' group we created an audio guide to items from the Gallery's collection that reflected the Festival's theme of POWER. They were able to work with Northern Opera Group's Artistic Director, David Ward, and curators from the Gallery to explore this theme, and identify items that they wanted to explore. Ten items were eventually chosen, with each participant recording an audio commentary reflecting their thoughts on the piece, and its relation to the idea of POWER. The audio guide was uploaded to the Gallery website and available for free for visitors to listen to during the Festival period. The audio tour achieved over 250 listens, and we were pleased to welcome the volunteers to our main Festival production of Handel's 'Silla'. This was the first time most participants had attended an opera, and supported our aims to bring together the various events of the Festival and create opportunity for participants, audiences and artists to take advantage of various part of the Festival. The project succeeded in its main aims to - Demonstrate the links between art and opera, and support the cross-promotion of existing audiences for both art forms - Promote the creativity and artistic voices of participants, celebrating their contributions - Improve participants' skills in curation, writing for audio, and audio recording - Provide new and diverse experiences for Festival audiences to engage with other creative organisations in the city Across the rest of the Festival, we welcomed over 3,000 audiences and participants for productions, workshops and other events. Our headline production of 'Silla' received exceptionally positive reviews (including 5* from Opera Now) and we visited 12 different areas of Leeds during the two weeks. This video provides an overview of the Festival - <https://youtu.be/mOJhxTNs7Do> We enjoyed working with Leeds Art Gallery and the

partnership's ability for each of us to reach different participants and audiences. We are already planning another project alongside our 2023 Festival, which will see participants create their own artworks that reflect their individual identities and heritage; this is inspired by our main Festival production of 'Frida' (the life of Frida Kahlo).

David Ward

Sculpture of a St James Hospital critical care nurse

£1000 to Paul Digby towards the creation of the sculpture

I used the funds to pay for materials to have a clay life size model sculpture of a nurse in PPE fabricated using plaster, pigment, fibreglass and resin. The mould making and casting had been planned for September and I had bought all the materials and booked out a space to work in. Then one week before it was meant to take place, the artist I was working with who has key



knowledge about the process had a stroke. He thankfully survived and he is well all be it incapacitated but has finally been sent home from hospital. This left me in a difficult position and I needed to fund raise a further £2500 to have the sculpture made at Dartura in Holmfirth. This is where it currently resides and is in the process of being fabricated ready for collection in January 2023. The mould needed over a month to completely dry out. The sculpture will be exhibited between February and early April via a tour of community venues around Leeds including mental health and dementia services as well as arts venues, I am currently confirming these. Then in April it will be on display in Leeds City Museum with a promotional event planned for International Nurses Day. The sculpture alongside drawings and paintings I have made about the St James

ICU ward, they will all go on display in St James Hospital Atrium Gallery in August. Both events are in the Leeds 2023 programme. There will be a QR code alongside the sculpture taking people to an online questionnaire asking them where they would like the sculpture to be sited. This document will then be submitted to Leeds City Council who have supported the project from the start. As part of the fundraising promotion, I was on the cover of the Yorkshire Post (image enclosed) and have had the valuable support of Barnsley Bard Ian MacMillan who spoke at an event I organised in Leftbank Leeds. I also delivered a series of exhibitions in bars around the city as fundraising events. I always promote all sponsors including yourselves and you featured in the Yorkshire Post article.

Paul Digby

Atlantic Flowers

£1000 to Patrick Eyres to support publication by New Arcadian Press

The artist-illustrated 'Atlantic Flowers' is the 54th edition of the New Arcadian Journal (77/78, 2022). The NAJ was launched in 1981 by the Leeds-based New Arcadian Press. It was the grant of £1000 from The Leeds Philosophical and Literary Society that was instrumental in realising this unique project. The purpose of 'Atlantic Flowers' is to broaden the understanding of the internationally renowned poetic garden, Little Sparta, by addressing the place as a garden of remembrance. Created by the poet, Ian Hamilton Finlay (1925-2006), the wide range of memorials not only embrace cultural heroes but also the 'Flower' Class corvettes of the Battle of the Atlantic (1939-45). Never before have the warships within the garden's fleet of maritime sculptures been considered as naval memorials. The NAJ also locates Finlay's practice of memorialising within the tradition of the 18th-century English Landscape Garden. The theme of naval memorials is explored from the first commemorative print and sculptural maquette (1972) to the cluster of artworks (1999-2001) that culminate in the monumental installation, 'Camouflaged Flowers'. This is an epic composition of garden and landscape, planting and sculpture, weather and seasons, whose meanings are animated by leaves, blossom and berries. Indeed, 'Atlantic Flowers' emphasises that planting is integral to Finlay's sculpture, and that this practice is brilliantly demonstrated by the brick, bronze and cotoneaster sempervirens that embody 'Camouflaged Flowers' (2001). 'Atlantic Flowers' also emphasises the longstanding relationship between the NAJ and Little Sparta. The text is composed of primary material gathered from correspondence and conversation (1979-2006) between the author, Dr Patrick Eyres, and the poet-gardener, Ian Hamilton Finlay. The 228 pages are elegantly designed and garlanded with 204 illustrations in colour and monochrome. These include a selection of the photographs taken by Eyres over the years since 1979. The artist-contributors include the NAJ



veterans, Catherine Aldred (including cover), Chris Broughton, Howard Eaglestone and Andrew Naylor, as well as Ron Costley, Gary and Jo Hincks and Kevin Lycett. Moreover, Finlay's important but unrealised set of proposals for a circuit walk punctuated by landscape sculpture, 'The Peterhead Power Station Projects' (1978), has been reproduced in full for the first time. Not only does this sustain the maritime theme of 'Atlantic Flowers', but these 'Projects' also showcase the consummate drawings by Ian Appleton (1939-2020), who was the architect of the Leeds Playhouse (1985-90). When opened,

the building was hailed by one critic with the back-handed compliment that it was the new national theatre that should have been built in London.

Patrick Eyres

A Leeds Anniversary - the 150th anniversary of the grand opening of Roundhay Park
The history of the park and its acquisition in September 1872 on behalf of the people of Leeds

It's by a series of unfortunate events that a former deer park, turned private estate, came on the market in 1871. It was **fortunate**, though, that it was the year when John Barran took his turn as Mayor of Leeds.

For five centuries this corner of Yorkshire was grassland with trees. Grazing deer were kept inside the 'round hay' by an earth bank and fence erected by a Norman baron. As well as being a hunting ground, the territory was also exploited for stone, iron, coal, clay, timber and as farmland. By the early nineteenth century, the former medieval park was divided into fields and very little woodland remained. Thomas Nicholson, a successful banker, bought it and landscaped it into a gentleman's park, planting trees, making the two lakes and building himself a fashionable house. He'd intended that the property should always pass down through the family. He had no children, though, and the property passed to his half-brother, who was also childless. A nephew, William Nicholson Nicholson, inherited it in 1862. Several of his 13 children had caused no end of trouble and the disappointed father decreed that on his death the estate should be sold. His executors delayed, and his widow took them to court. An auction date was set for 4 October 1871.

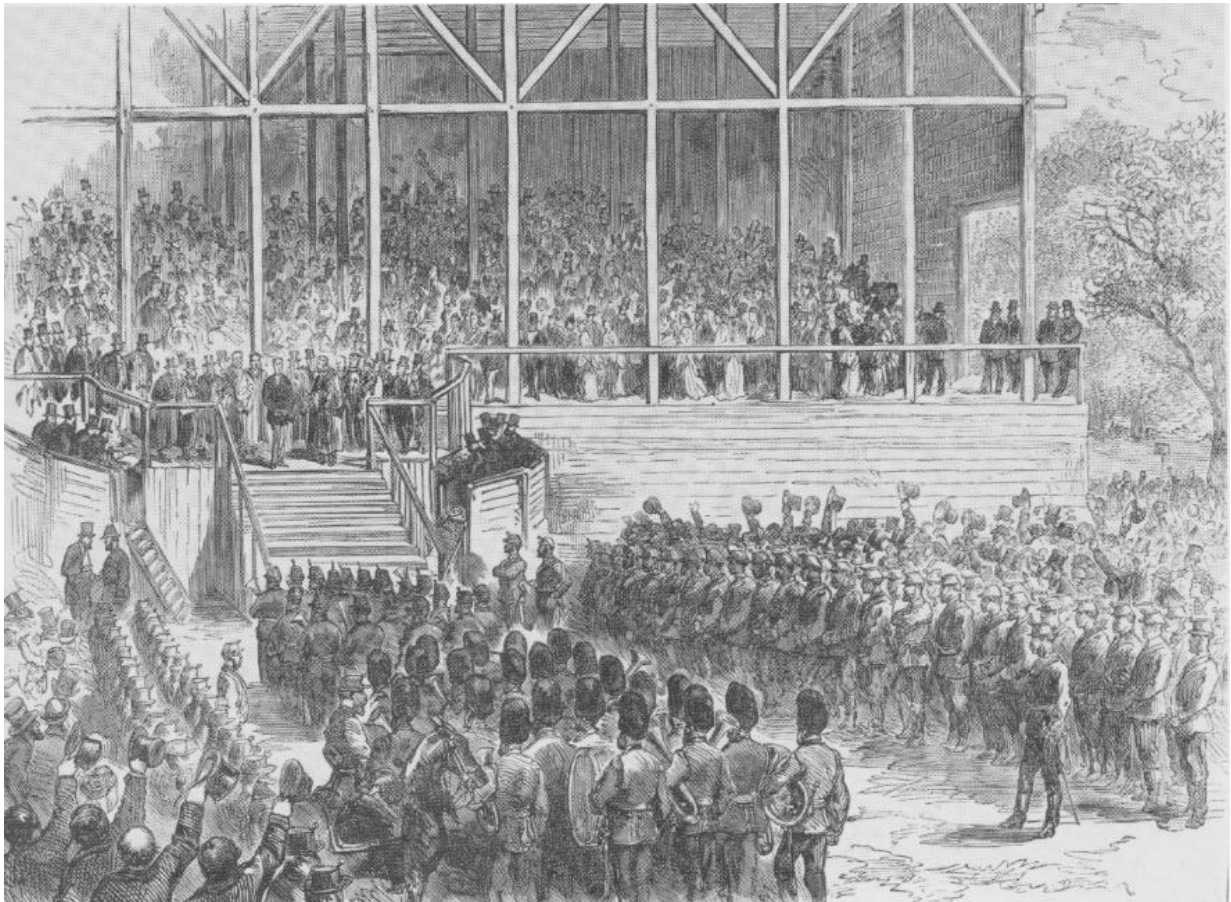
John Barran (1821-1905) had arrived in Leeds in 1842 and became the successful pioneer of ready-made clothing. As a town councillor, he was involved in trying to improve the grimy industrial town. When the park came up for auction, he was able to use his position as mayor to take the initiative and secure a great amenity: "... *Here we have an estate which would make an ideal playground for the people of this town*".

It was a difficult challenge: the location was beyond the borough boundary and three and a half miles from the town centre. The price was going to be beyond the Corporation's spending limit, meaning that an Act of Parliament was needed to enable the extraordinary commitment. Nearby residents objected. Yet Barran argued that it was an opportunity not to be missed. It was a ready-made park and the difficulties could be overcome. If the Council bought not only the park itself but some extra land, they could sell it off for villas and recoup the cost to the ratepayers. The Mayor won over enough fellow councillors and he wooed the public, including by opening the park on Sundays in the summer of 1871. At what must have been a nerve-racking auction, the hammer came down on the two lots at £139,000 (more than £15m in 2022). He mortgaged his own house to contribute interim funds.

Despite residents in fine houses around the park mounting another campaign of resistance, the enabling Act was passed in June 1872. Now the Corporation invited Prince Arthur, seventh child of Queen Victoria and Prince Albert, to open the park on 19 September 1872. The royal visitor came to Yorkshire by train and stayed overnight at Harewood House. Next day, the prince was taken to the Town Hall and then in a procession to the park, where he was shown around the mansion, upper lake and 'castle' - a shorter route than we took 150 years later.

He gave a brief speech from the specially constructed platform: "Mr Mayor and Gentlemen, it gives me great pleasure to be present on this occasion when we are about to confer so great a boon on the people of Leeds. Most sincerely do I trust that the large sum of money which has been expended upon this beautiful park may be amply repaid by the great improvement in the

health and comfort of the hard-working classes for whose benefit it has been purchased. In the name of Her Majesty the Queen, I declare Roundhay Park open”.



The opening of Roundhay Park print©Leeds Library Service

Even when no longer in office, Barran continued to try to solve problems connected with the park - the land disposals, affordable transport and facilities for visitors. Eventually, in 1891, a tram service was in place to bring visitors up from town. The first line in Europe with overhead electric wires, it was taken over by the Corporation in 1897.

Barran’s prediction will surely always hold true: *“Future generations will remember us with gratitude as they stroll along the pleasant walks and enjoy the ease and shade of the trees”*.

Rachael Unsworth

