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Registered Charity No. 235313

The Manchester Literary and Philosophical Society

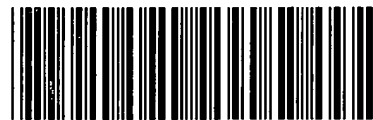
Annual Report and Accounts

**for the year ended
30 June 2016**



Registered office
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Manchester
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The Manchester Literary and Philosophical Society

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The Manchester Literary and Philosophical Society

Trustees (directors)

Prof Sir Netar Mallick
Dr Diana Leitch
Mrs Constance Holland
Mr J S Buckley
Mr D Astbury
Mr D S Brown
Professor J G Booth
Dr A McDougall
Dr D Shreeve
Mr C Baker
Mr D Brailsford
Prof Kenneth Letherman
Mrs J Lavelle
Mrs J Ross
Mrs P McWilliam-Fowler
Professor M Sinnott
Mr N P Barnes
Dr J S Thompson

Chairman and President
Vice President and President Elect
Vice President
Honorary Secretary
Assistant Hon Secretary
Honorary Treasurer
Honorary Editor of Memoirs

Chairman of Social Philosophy Section (resigned May 2016)
Chairman of Arts Section
Chairman of Science and Technology Section
Acting Chairman of Social Philosophy Section from May 2016
Chairman of Young People's Section

Company Secretary

Mr J S Buckley

Bankers

The Royal Bank of Scotland plc
PO Box 356
38 Mosley Street
Manchester
M60 2BE

CAF Bank Limited
25 Kings Hill Avenue
West Malling
Kent
ME19 4JQ

Auditors

Beever and Struthers
Chartered Accountants
St George's House
215-219 Chester Road
Manchester
M15 4JE

Investment managers

Brewin Dolphin
1 The Avenue
Spinningfields Square
Manchester
M3 3AP

President's Report

The past Season has been an eventful one but the programme was completed successfully with the hard work of members of Council and of our Sections. This could not have occurred without the work of our office staff. Julie and Kathryn have endured two office moves in the year, a change of bankers with the attendant delays in our normal cycle of business and the introduction of a new booking system - together with a complete redevelopment of our website and its infrastructure. They have been essential in the underpinning of our activities.

I must pay particular tribute to John Buckley for his many achievements as Hon. Secretary and, in particular, express my grateful thanks for his unstinting effort, commitment and loyal support during my Presidency. John has made a valuable contribution in addressing the challenges the Society faces as it keeps abreast of changing circumstances. David Brown who like John leaves office at this AGM, has given much time to sorting out our banking arrangements and to the new requirements of the Charity Commissioners regarding our accounting systems - all this while moving to London for family reasons.

Like all venerable institutions, the Society survives by adjustment to circumstance but such adjustment is never smooth, it requires - as Harold Wilson remarked of Government - occasional sharp movement of the tiller.

This has recently been needed for us, and in the past two years we have addressed issues important to the future of the Society. An Away Day of Council in October 2014 produced a game plan and I am particularly grateful to Constance Holland for her work in putting our discussion in order.

We decided to work on the following issues,

- Communication and publicity
- Council Governance
- Current banking arrangements
- A better balanced budget
- Fewer, more prestigious Council events

BUT life being what it is our priorities were temporarily upended when MMU, our hosts for over a decade, gave us notice. As you know from my earlier note to you, this gave us an unwonted headache; but we have managed to find a stable office suite with well-established landlords and a long lease. And thankfully have addressed all the areas we wished to work on.

A small, experienced group, Constance Holland, Joanna Lavelle and Patricia McWilliams Fowler worked with the office and Faelix, our chosen advisors, to revamp our website and to integrate it with our regular office activities including the booking system. The website now makes possible a wider involvement with the Greater Manchester community and of course with our members. It remains a work in progress and your help in improving it will be invaluable. Joanna Lavelle will chair a group to examine our communications strategy with help from other expert Society members.

With regard to finance the Society has moved current banking from Coop to CAF bank. We have again to budget for rental cost. So as better to balance our budget, we are curtailing costs. For example we are block booking our venues - the RNCM is our preferred base - and using as far as possible the benefits of our charitable status and our University connections. We are instituting expert advice so as to maximise the income return from our investments. And, importantly, we are simplifying our future subscription rates while respecting our present membership.

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Trevor Rees our incoming Treasurer has undertaken with colleagues a review of our Governance and the Report, which Council has accepted is attached to Council minutes together with Council responses. Some of these may eventually require approval by the membership.

For the coming session we have three prestigious Council Lectures. Prof Sir Konstantin Novoselov accepted my invitation on behalf of the Society to receive our Dalton Medal and this will be awarded in October. I was very pleased when Professor Tom Kirkwood, who I and others know from his time in Manchester and his Reith Lectures accepted my suggestion that he lectured to us on Ageing, a field in which he has no peers in the land. And our President-Elect, Dr Diana Leitch has worked hard to get our speaker for the 2017 Manchester Lecture.

Our popular Christmas events and of course the annual Percival Lecture will continue but otherwise Council will concentrate on the above lectures and our important Young Peoples' events while reviewing our involvement with Young People in whom we continue to invest. Watch the website!

Professor Sir Netar Mallick
President

Treasurer's Report

I have included a simplified income and expenditure account for the year ended 30th June 2016 in the old familiar format. The Statutory Accounts are presented later in this Annual Report and comply with the new Charity SORP (FRS102). Some additional information may help your understanding.

Subscriptions

I included a note last year to explain that the subscriptions in 2015 included an accounting adjustment, which increased the comparative figure by £5000.

Investment portfolio

We have followed standard accounting rules by showing the portfolio dealing account balance as if this were a bank balance. This year the balance for the year was some £20K higher than in previous years, which was just a temporary position. This unfortunately gives a slightly unusual effect on the accounts, in that our bank balances are some £20K higher, whilst the portfolio value is £20K lower than expected.

You will see that our investment managers, Brewin Dolphin increased our indirect investments (collective investments) and slightly reduced the level of investment assets in the UK. Also, whilst there were changes in the investments during the year there were major disposals and acquisitions in the final quarter to June 2016 of approximately £650K in this quarter.

Overall, you should be pleased to see that the fall in the portfolio value of about £42K on the Balance Sheet, although close to the Brexit vote effect, is partially explained by the £20K bank balance, part explained by our need to extract extra funds and part by other factors.

Expenditure

I have identified aside, new expenditure of nearly £30K. Incidentally, the comparative is the theoretical rent costs at MMU.

The rent costs are for our stay at the St James Club and the commencement of service charges at Church House. We have negotiated a three month rent free period at Church House.

The website costs were slightly in excess of £11K and whilst the database set up costs are low there is an annual cost for the database which will continue.

PayPal costs, bank charges for the new BACS service and removal expenses were expected. However two office relocations were not predicted.

The promotional expenses of £731 include the Dalton medal costs, as well as those for an upright printed banner and a printed society tablecloth for events, which was much lower than envisaged.

Looking at our standard expense costs, our printing costs are also lower than expected, for a number of reasons. However our main costs for functions & office staff have risen.

Overall, we budgeted for additional costs of £50K, our actual costs are much lower than this. I trust that members will be encouraged by the fact that despite a difficult year of many changes, the financial position of the society is satisfactory and trust that this additional information gives further insight to members.

D S Brown
Honorary Treasurer

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Income and expenditure account for the year ended 30 June 2016

	2016 £	2015 £
INCOME		
Subscriptions and Gift Aid	32,333	34,442
Sponsorship	-	6,000
Investment income	48,736	47,900
Sundry Income and Donations	2,099	747
TOTAL INCOMING RESOURCES	83,168	89,089
Expenditure		
Rent & meeting costs	6,040	6,000
Legal & professional fees re: Lease	2,350	-
Website & database implementation	13,418	-
Credit/debit card discount - PayPal	401	-
Removal costs	6,271	-
Promotional expenses	731	-
Bank charges	484	-
	29,695	6,000
Heat & light	60	-
Maintenance expenses	50	223
Staff costs	33,866	30,003
Functions and meeting costs	22,128	17,558
Computers & internet costs	842	801
Library	-	102
Printing of memoirs & programmes	1,756	7,359
Stationery and photocopying	1,372	2,395
Postage, telephone and equipment hire	2,261	2,309
Insurance	1,703	1,650
Depreciation	536	664
Audit fee	3,000	3,000
Investment management fee	11,432	11,880
Sundries	788	748
	109,489	84,692
Net operating (deficit)/surplus	(26,321)	4,397
Net investment Profits	4,041	1,611
Net Movement in Funds	(22,280)	6,008

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Lectures arranged by Council

The History of Tenys and Racquets: a romp through several centuries of esoteric small ball games

Peter Barnes a past secretary of the society got the 2015 /2016 session off to a more light- hearted start than usual by tracing the origins of *tenys* from its origins in the fifteenth century to the split in the 1870's to Real Tennis and Lawn Tennis. Then the development of *fives* into *squash and racquets*. The lecture accompanied by the presentation of many historic 'tools of the trade' and their use.

Dare to be Wise - a history of Manchester Grammar School

500 years ago Hugh Oldham founded the Manchester Grammar School with the object of promoting "Godliness and good learning among the poor boys of Manchester". Its motto is *sapere aude* - dare to be wise.

To celebrate this momentous achievement the society ventured out into the suburbs to hear a history of the school and its more famous pupils and their achievements from **Patrick Thom** the Deputy Headmaster. To make the occasion more memorable, we were also introduced to the archives and artefacts held in the school's library by the joint archivists, **Mary Ann Davison** and **Rachel Kneale**.

The Scottish Political Earthquake (2015) and the Future Union

The society were honoured to have been able to lure to the south and obtain the services of **Sir Tom Devine**, the doyen of Scottish historians, knighted in 2014 for services to the study of Scottish History, to explain how we arrived at a vote on Scottish Independence in September 2014 and how months later in the General Election of May 2015 the leading party in Scottish politics was virtually wiped out. For an hour we were privileged to hear an incisive and detailed study of the history that led up these events all delivered without hesitation or notes, a man very clearly in command of his subject and, as one would expect, a very lively question session ensued.

Christmas Carol Service

What has now become a tradition, the society took part in a carol service with the members of The St James's Club in the Parish Church of St Ann's Manchester, followed by a convivial supper.

Christmas Event 2015

The objective of the society's Christmas Event is to showcase to members the wealth of young talent that exists within the community and to give those young performers a vote of confidence.

This year we had the privilege of visiting the largest specialist Music School in the UK, Chetham's School of Music, whose motto is "Love to Play" and play they did. After a talk on the structure of Beethoven's Piano Concertos and the training of young musicians by **Dr Sam King** (Head of Music in the Curriculum), we moved into the Concert Hall to hear four of the most talented pianists compete in the Annual Pianist of the Year competition which this year was on their own choice of Beethoven's Piano Concertos The quality of what we had heard was the main point of discussion during supper in the 16th Century Baronial Hall.

The Percival Lecture - Jodrell Bank: World-leading science and world-leading heritage

This year it was the turn of The University of Manchester to host the Annual Meeting of academia with the society. This lecture and supper was held in the imposing environment of the Whitworth Hall at the University and was given by **Dr Teresa Anderson MBE**, the Director of the Jodrell Bank Discovery Centre, the Grade 1 listed Radio Telescope. She analysed the history of the site from its inception to its position at the forefront in the field in Radio Astronomy and described its ongoing research programme especially as the HQ of The Square Kilometre Array which is set to be the largest science project ever known.

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The Future of Museums in the UK

This talk by **Nick Merriman**, Director of the Manchester Museum and at present the Chair of the National Collections Trust, examined the ways in which museums in the 21st century were changing by the introduction of staff trained in the skills of learning, interpretation communications and customer care. In doing so how they were playing major roles in tourism, economic development, education health and well-being, even in international diplomacy and partnerships. He also looked at future developments including digital developments and the roles of museums in addressing major issues such as climate change and migration. He finished by looking at the role of museums in the Northern Powerhouse.

Special Lecture to mark the service given to the Society by Professor Sir Netar Mallick

This special event was organised at the Co-Operative Pioneers Museum in Rochdale, where members had time to visit the museum and to hear a fascinating address by the Head of Heritage Resources for the Co-operative Heritage **Gillian Lonergan** on the subject of Robert Owen and his part in the formation of the Co-operative movement and how he formulated his ideas and gained confidence in public speaking whilst a member of the Manchester Lit & Phil.

Hidden Gems of Cheshire, Daresbury, its environs and the Catalyst Science Discovery Centre and Museum

This venture into Cheshire was hosted by President-Elect, **Dr Diana Leitch**. Throughout the tour she pointed out all of the various buildings and places that had contributed to the growth of this area of Cheshire throughout the ages with two major stops firstly to the 12th century All Saints Church at Daresbury where Charles Ludwidge Dodgson was baptised to later become known as Lewis Carroll and it is in that church there is a Visitor Centre to Alice. It was in this venue that we learnt about rural Cheshire and then on to Widnes and Runcorn and the Catalyst Science and Discovery Centre to learn all about the extensive chemical industry that grew up in the area and is still active. Whilst there we were able to view the ongoing construction of the new bridge across the Mersey.

Presidents Reception with address by Lord Guthrie of Craigiebank GCB LVO OBE, former Chief of the Defence Staff

Lord Guthrie gave an address to further stress his beliefs in the conduct and ethics in modern warfare which he first expounded in his book 'Just War: The Just War Tradition: Ethics in Modern Warfare'. It was a spell-binding address, as one would expect from a man of such widespread experience from a young soldier to Head of the Army then the Defence Forces and still continues as an advisor to Government. The questioning was forensic especially around events of the last few years.

This event was held in conjunction with Broughton House a home for elderly service personnel.

Lectures arranged by the Arts Committee

The Arts Section prefaced the season with a visit to Quarry Bank Mill, Styal, Cheshire. Pioneering cotton entrepreneur Samuel Greg, founded the mill in 1784, and the family played an important role in the industrial and political life of Manchester. In addition, Samuel, Robert Hyde and William Rathbone Greg were all active members of the Lit and Phil. The visit was doubly successful – an enjoyable and interesting excursion for members, which has also seen the renewal of links between the Society and Quarry Bank, with joint activities now planned between the two organisations.

The lecture programme began in October with the talk on **Miss Rachel B Shuttleworth's Treasured Textiles**. **Vanessa McDermott**, the Director of the Gawthorpe Hall Textiles Collection presented a pictorially beautiful, knowledge filled and delightfully relaxed yet directly engaging talk. Her remarkable insights into the personal life of the Gentrified collector added gravitas to the purpose of the textile collection as a teaching resource for women in particular. From a young age and influenced by the interior design work of her home and family seat, Gawthorpe Hall - for example, by the Elizabethan ceiling plasterwork of F and T Gunby (1605) - "Miss Rachel" transposed these flowing and natural designs into her handmade pieces of hand crafted fabrics and influenced her choices of pieces to collect from across the globe. Images of close-up glossy thread in repeating detail, or genre, of the type of handmade stitching used in the manufacture of a fabric-work were particularly beautiful. She was to become a major exponent of the Arts and Crafts movement. Her ability to focus on fastidious detail and record keeping was itemised in her stock of some thousands of index cards, in green ink, with which the current curators and researchers of the collection are using to identify and catalogue very many of the thirty thousand pieces in the collection. Vanessa described the re-opening of the displays and the Hall due in the Spring of 2016 with great enthusiasm.

In November **Mike Hill** spoke about **Graham Greene** and **Alfred Hitchcock**. The talk considered what might be called a "blind spot" in Graham Greene's film reviews in relation to Alfred Hitchcock's work. Using three film examples of *The 39 Steps*; *Secret Agent* and *Saboteur*, Hill explored why Greene's usual considered and insightful reviews were savagely critical when it came to the works of Hitchcock. He offered three reasons: Greene was acting in defence of writer John Buchan for what he considered to be a film "full of tricks". However, the defence was unnecessary as Buchan saw the film, liked it and saw it as an improvement on his novel. Hill further proposed that Greene had failed to acknowledge that Hitchcock had improved since his early offerings and finally that there may have been a touch of self-criticism as Greene was very disparaging about his own commercial work which he dismissed as "entertainments" rather than serious writing and that perhaps he felt that Hitchcock had "sold out" to commercialism. Greene refused to work with Hitchcock and Hill suggested that this was a great loss, for example Greene's novel, "Our Man in Havana" would have made a fascinating Hitchcock film. The talk was well attended and the question and answer session could have gone on all night had not supper intervened.

To the surprise and delight of the audience, the December lecture **Degenerate Music – the Secret Soundtrack of the Third Reich** was opened with a splendid performance of Kurt Weill's song, 'Moritat von Mackie Messer' by mezzo **Jill Taylor**, accompanied by the lecturer **Derek Blyth** on the accordion. This song was the signature tune of the final days of the Weimar Republic before being banned by the Nazis on coming to power in January 1933. Derek outlined the range of music regarded as *entartete* (degenerate), such as work by Jewish composers, or influenced by jazz, by radical political beliefs, or too dissonant for their conservative taste. Derek played examples of Mahler, Mendelssohn, Klezmer music – all banned – and also of 'approved' music, including 'Die Fahne Hoch', which is now banned in Germany for its Nazi sentiments. He mentioned the 1937 'Entartete Musik' exhibition ridiculing music regarded as having a degenerate influence, and also many other composers and performers affected by the ban. He played excerpts of underground music from Berlin, referencing a film made of storm troopers marching to 'The Lambeth Walk' and from there led us to the gates of KL Theresienstadt and the composers living there, including Victor Ullmann, Hans Krase and Ilse Weber. A song by Ilse

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Weber, 'Ich wandere durch Theriesenstadt' was particularly moving, with the text and translation provided on screen. All these composers perished in Auschwitz. Of the many who fled the Third Reich some reached the UK, contributing to the founding of Glyndebourne. Some ended up in Hollywood composing music for the film industry, such as Korngold and Goldschmidt; examples of their work were played. Derek mentioned Decca's 'Entartete Musik' programme of recordings and the modern performances 'Brundibar' and 'Der Kaiser von Atlantis'. He finished with a picture of the gates of KL Buchenwald which had the legend 'Jedem das Seine' - the significance of the phrase, the links with J S Bach and the hope for the future.

In January **James Thompson** gave a lively and much appreciated talk on **Performance in Place of War** the major research project he has led for the past twelve years: *In Place of War* – an award winning initiative at the University of Manchester that has documented and helped to advance the practice and understanding of theatre and performance projects in sites of contemporary armed conflict around the world. The project started after James worked on theatre programmes for UNICEF in northern Sri Lanka in 2000 and has continued to this day, exploring arts projects in international war, disaster and conflict settings. Beginning with an overview of how theatre and the arts have responded, directly or indirectly, to war - from the Ancient Greeks to the first world war poets, Brecht and various contemporary practitioners - he then explained how *In Place of War* has developed programmes, documented the work of artists and provided support for struggling arts organisations. His talk included descriptions of projects in the Democratic Republic of Congo, Kosovo, Sri Lanka and Sudan and the very different styles and approaches that exist in these contexts. He concluded by examining how these different projects raise important questions about the relationship between the arts and war – and how people survive, live through and seek to represent conflict. Among the issues that such programmes highlight were the need to grasp exactly where the practice sits on the time-place axis, the dangers of what he called 'Romeo-and-Juliet-itis' (the all-too-easy and sometimes counter-productive appropriation of Shakespeare's classic tale into contemporary conflict zones), and the value of work that can create moments of beauty in the midst of otherwise appalling situations.

In February **Jane Hornby** spoke on **Alchemy, Obsession, Poison and Death: a brush with colour**. The skilful selection of beautifully composed and intensely coloured pre-Raphaelite, Italian Renaissance and Baroque Art-works delighted an appreciative and captivated audience; combined with a lecture narrative which was pitched at the level of eager-to-inform and to pass on an understanding of the Artists' intention and symbolism, not only of the colours of pigments used but also of the objects painted in the pictures, made the evening edifying for all. Given the topic's breadth of possible content, the lecture was necessarily concise yet remained comprehensive in admirable detail, for example, discussing the early use of earth's minerals for pigments up to the variety of synthetic pigments of the 19th century as by-products of a burgeoning scientific advance in chemistry. The unfortunate poisonous effects of arsenic based pigments and their array of uses in wallpaper for example and in Napoleon Bonaparte's ultimate demise raised an awareness in the audience that the Artist could lead a perilous life! Although the speaker was well-versed in so many aspects of the use of colour in Art, time did not permit too much discussion on other edifices, but there was a poetic and well worded narrative provided on the emotional significance of the primary colours used for clothing and objects portrayed alike.

The March lecture, **John Ruskin: A life in Pictures** by **Prof Stephen Wildman**, Director of the Ruskin Library at Lancaster University was an expansive talk combining a biographical history of Ruskin with illustrations of his artistic skills from boyhood to later life. He highlighted the breadth of Ruskin's capabilities as poet, artist, writer, critic, educationalist, philosopher, naturalist, archaeologist and architect - representing a true polymath. With insight and occasional humorous asides, Prof Wildman told of Ruskin's privileged upbringing by his sherry merchant father and overindulgent mother to provide private tuition for their precocious son leading to undergraduate studies at Oxford University, where he excelled in poetry. Illness interrupted his studies, and was, during periods of stress, intermittently to affect him for the rest of his life. On recovery, he embarked on the critical study of

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art and architecture being a great admirer and supporter of the painter JMW Turner. Later he became interested in the Pre-Raphaelites and helped Rossetti and Burne-Jones. During his tours of Europe he developed a great love of the Alps studying their geology, and in Northern Italy he studied artists little known in Britain at that time and championed the Gothic architecture of Venice. His growing status in Art was acknowledged with his appointment as the first Slade Professor of Art at Oxford University. Others of his numerous activities included educational support of workers, giving lectures and setting up the Saint George's Guild in Sheffield. The last 28 years of his life in declining health were spent at his home at Brantwood, overlooking Coniston. Since 1996 JH Whitehouse's collection of Ruskin paintings, drawings manuscripts and books, under the auspices of the owners the Education Trust Ltd, have been housed in the purpose- designed library at Lancaster University.

Two of Marple's famous sons, were the subject of the fascinating April lecture by **Prof Andrew Biswell, Christopher Isherwood and the Bradshaws of Marple Hall**. The writer Christopher Isherwood, is well known for his novels about Berlin - to where he was drawn by its bohemian lifestyle - and his relationships with other literary figures including Stephen Spender and W H Auden, to whom he also became literary mentor. But many people do not realise that Christopher William Bradshaw Isherwood, was descended from John Bradshaw, who rose to become President of the High Court of Justice and one of the regicides who signed the death warrant of King Charles 1. The focus of the talk by Prof Biswell, a literary critic and biographer, was to place Isherwood in the context of his strong connections with the North-West of England. Isherwood rejected his upper middle-class background, living in Berlin for some time, then leaving England in 1939 – a controversial move which was regarded by some as a flight from the war in Europe. He became a US citizen, but he returned to the subject of his family towards the end of his life when he wrote a remarkable series of autobiographical books. This insightful talk, which drew on Isherwood's writings, libellous poems about John Bradshaw and documents by other family members, was illustrated by photographs of the people and places to which it refers. Isherwood's legacy includes The Christopher Isherwood Foundation at the Huntington Library in California, which aims to preserve his work. The audience was enthralled by the lecture, which was followed by a lively and informative question and answer session.

The Section has been gratified to receive very positive feedback from audiences about the wide range of lectures, and high quality of speakers.

The Annual Arts Section AGM was held on 10 May 2016. Patricia McWilliam-Fowler agreed to continue for a second year as Chair. Tony Jackson and Joanna Lavelle agreed to continue as joint Minute Secretaries

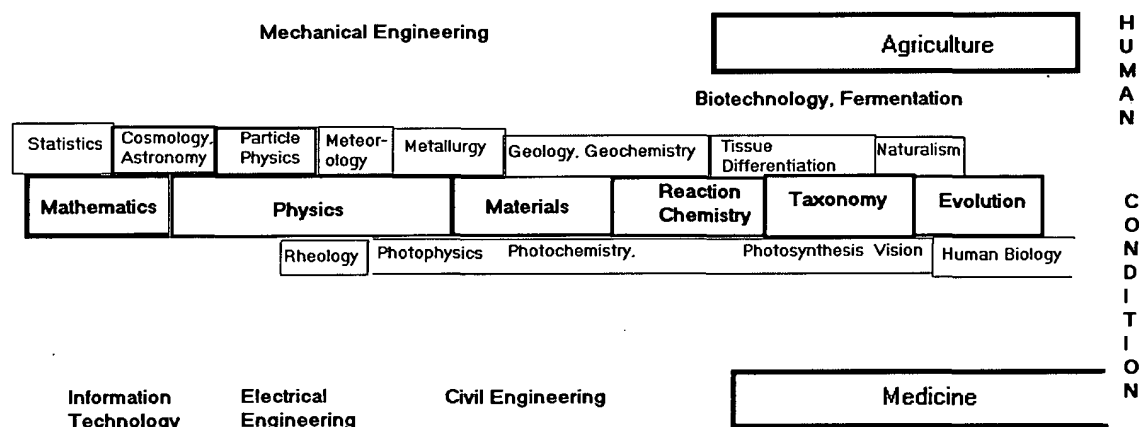
Art Section members for 2015-2016 and contributors to this report were:

Edwina Dyson
Tony Jackson (Joint Minute Secretary)
Joanna Lavelle (Joint Minute Secretary)
Gary Mitchell
Patricia McWilliam-Fowler (Chair)
David Shreeve

June 2016

Lectures arranged by the Science and Technology Committee

With the death of its immediate past Chair, Professor Keith Ross, in February 2016, the Committee lost a valuable friend and colleague, who was an insightful guide to the business of the Committee. At its first meeting, on the 29th October, the Committee defined its subject coverage as “those areas of knowledge which give accurate predictions, and the technologies derived from them”. The diagram below, loosely based on Auguste Comte’s hierarchy of sciences, is used to visualise the areas of the lectures, and to try and ensure a rough balance of the physical sciences and the biological sciences, and also the applications in engineering, IT-, and applied biology-based subjects. We include mathematics, and its immediate applications such as cryptography, even though mathematics can advance in the absence of experiment or observation. At the RHS extremum of this diagram, we are open to joint lectures in areas where sound science has important consequences for social philosophy: on the technology axis, there would seem to be opportunities combining materials science and the visual arts, or mathematics with music.



Subsequent committee meetings were held on 11th December 2015, 2nd February and 26th May 2016, the latter being followed by the Annual General Meeting. The main purpose of these meetings was to set up the programme for 2016-7.

Lectures The first talk on 22nd October was by **Professor Simon L. Lewis** on *The Anthropocene: when did humans become a global force of nature?* The speaker explained how the various periods, epochs and ages had been defined in the nineteenth century as practical guides to the possible age of geological finds. Divisions between them had often been marked by catastrophic events such as meteor strikes. It was quite clear that humans were now the dominant species on the planet, and were altering its makeup: the question was, when did this change occur? A very fair-minded treatment of four contenders was presented. The first was the introduction of agriculture – over half the land area has a history of cultivation, and extensive cultivation alters methane and carbon dioxide concentrations in the atmosphere (marshy paddy fields produce much methane, “marsh gas”). The problem with agriculture as a geological marker was that its introduction was geography-dependent, and spread over many thousands of years. Very recent candidates – nuclear weapons and the industrial

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revolution - suffered from too short a time-scale to really determine how big, and what, the change was. The age of the discoveries, though, had caused huge changes by dispersal of species hitherto separated by oceans: North American earthworms are of Eurasian origin, the native species having been displaced. A very violent volcanic eruption in the East Indies in 1610 had left an isotopic and elemental geological time marker across the planet. The Anthropocene began in 1610. An interesting and lively question session followed.

On 23rd November, Professor Colin Pulham of the University of Edinburgh talked on *The Big Squeeze: Putting Materials under Pressure*. The meeting was organised in collaboration with the Manchester Branch of the Institute of Physics. The lecturer described the effects of pressure on materials. Starting from the every-day effects, he went on to demonstrate some very entertaining effects, including some quite impressive explosions. He then talked about where we could find much higher pressures in Nature in the Gigapascal range (tens of thousands of atmospheres) – at the bottom of the trenches in the middle of the oceans and in the centres of planets. Undersea explorers are bringing back some very strange creatures with very different biochemistries. Colin Pulham then turned to his own scientific interests - the creation of gigabar pressure in the laboratory using diamond anvil cells - samples placed in these cells can be investigated in situ using either X-ray or neutron diffraction or direct spectrometry as diamond is transparent to these radiations. The results show many interesting structural changes under pressure – usually reversible but occasionally permanent changes are observed. It was agreed by all that occasional joint meetings with the IOP worked well and the pattern should be repeated in future.

On 6th January 2016 a lecture on *Doping in Sport* was given by Professor Charles Galasko, an Emeritus Professor of Orthopaedics at The University of Manchester, who has served professionally on many sporting bodies. He first described the dodges used in sports contests in classical antiquity (wine and opium, largely). These persisted into the twentieth century in some sports, augmented by New World coca, initially in the form of leaf. Questions were raised before WWI, but it was only post-war that some performance-enhancers were prohibited. The changing nature of mainstream medical advice was illustrated by the case of a GP who, before WWI, had been struck off the Medical Register for recommending to his patients that they stop smoking, and ate plenty of fresh fruits and vegetables, in defiance of Harley Street orthodoxy that smoking helped lung function, and that refined food was healthiest. As pharmaceutical and biochemical knowledge after WWII exploded, so did the problems of doping. In addition to the narcotics used to kill pain, there appeared stimulants such as ephedrine (Ph-(R)-CHOH-(S)-CH(NHMe)-Me; amphetamine, “speed”, is Ph-CH₂-(S)-CH(NHMe)-CH₃): 72 Million doses of ephedrine were used by UK forces in WWII). In the 1960’s β -blockers, to increase heart regularity and function, appeared, whilst long-known pharmaceuticals were misused as insidious drugs which permanently alter the body itself. Anabolic steroids are such drugs, which increase muscle mass, but at the expense of a whole host of other problems, including aggression and reproductive malfunction. Nonetheless, after they were shown to be the main factor behind the DDR’s Olympic successes, they now appear to be in widespread use even in high schools. The difficulties of detection of doping increase when artificial means are used to increase favourable endogenous biochemicals: to increase haemoglobin count, athletes have been known to take some of their own blood and keep it preserved for some weeks before an important event. The athlete’s haemoglobin count would rebound naturally, and then just before the contest the preserved blood would be re-added. The only solution to such tricks is for athletes to be continually monitored, when a sudden increase in haemoglobin would be detected. A survey of professional athletes had found that half would be prepared to take a drug with a 50% five-year death rate, if they could be certain of winning their

contests, although a repeat study showed that this prevalence had fallen to that of the general public. In such an environment, sports medicine is condemned to an endless three-way race between analytical chemistry, to detect the doping agent, synthetic chemistry, to design new doping agents (biosimilars are very difficult to detect), and unscrupulous athletes, or, more importantly, unscrupulous coaches. The speaker recommended that all doping control should be removed from sport governing bodies and given to completely independent anti-doping agencies whose board members would have no connection with the sport governing body. He also asked whether taking performance-enhancing drugs should be made a criminal offence, since it allowed the individual to earn money under false pretences.

Dr John Cunningham, University of Bristol, gave a lecture on *Fossilized Embryos from the Dawn of Animal Life* on 8th February 2016. The explosion in the number of fossilised animal forms in the early Cambrian (about 5.3-5.5 x 10⁸ years ago) presents the paradox that evolutionary clocks derived from DNA sequences suggest that animals existed for long before the first fossil records of them. Dr Cunningham described his and his colleagues' work throwing light on this paradox, by examining fossilised embryos developing from the eggs of these early creatures, geologically at the early Cambrian/late pre-Cambrian boundary. The embryos yield more detailed fossils than the larger but more transient adults. Embryonic fossils are on the order of 1 mm across. They are usually isolated from CaCO₃ – based rocks such as limestone by stirring the rocks with warm aqueous acetic acid and filtering: the structures of the fossils are apatite (calcium phosphate based), which is insoluble in warm dilute acetic acid. The fossilised structures can look very much like the colloidosomes formed in non-living systems, and internal detail is important in distinguishing fossilised embryos from such structures.

The speaker described his investigations of one such fossil type *Olivoooides*, whose external form has unusual 5-fold symmetry. By use of X-ray and electron microscopy in various configurations, it was possible to see inside the curled-up embryo and identify *Olivoooides* as a Cnidarian (related to modern jellyfish and sea anemones). A particularly rich source of microfossils is the Doushantuo deposit in China, which seems to have arisen from some quirk of hydrodynamics in an ancient body of water depositing rich layers of embryos in the same place. A suite of microfossils looked like tubular organisms reminiscent of modern corals, although some workers thought they were cyanobacteria. In fact the internal arrangement of these fossils indicated they were not animals at all, but probably algae. An interested and lively discussion followed.

Professor Paul Bates, University of Bristol, gave a Lecture on *Modelling Flood Inundation from Street to Continental Scales* on 5th April 2016. The flooding of areas of human habitation is a global problem. Seven types of flooding can be discerned, with the four most important to the UK being fluvial, where a river or stream overflows its banks, pluvial, where rain falls at such a rate that it cannot flow away by normal drainage, groundwater flooding, where the water table in permeable rocks rises to enter basements/cellars or comes up above the ground surface, and storm surge in coastal areas, where a rise in effective sea level as a result of a storm backs up streams and drains. Less common in the UK are wave overtopping, dam breaks and tsunamis. £1bn is spent on flood insurance in the UK, but there is little real idea of what constitutes a "100 year event" (i.e. an event for which the probability each year is 0.01). Much of the increased insurance payments reflects building on flood plains, and houses which are both more vulnerable and have more costly content. Media claims that any particular events are "exceptional" rarely withstand scrutiny. However, some estimates of the global costs of flooding reach £54 billion a year by 2030. It is therefore important to be able to predict in detail where water

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will lie in any flooding event. Professor Bates outlined the operation of his modelling program. It was based on the assumption that flow was Newtonian (i.e. rate of flow was proportional to stress, a definition which included turbulent flow) and a very finely modelled three-dimensional map of the area. Such maps could not be constructed by ordinary trigonometric surveying, with its vast amount of interpolation. The technique now used is laser altimetry, in which a continuous record of height was deduced from interference patterns as an aircraft overflew the area in question. Professor Bates then gave examples of his predictions, superimposed on which were the areas that had actually flooded in a recent flooding event. An extensive discussion then followed.

Professor Gideon Davies FRS, FAMS, University of York, gave a talk on *Biofuels: From Curly Arrows to Pilot Plants* on 25th April 2016. He started by explaining how biological information flow, nucleic acid→protein→polysaccharide, resulted in an increase in potential complexity at each step, from a mere four nucleoside bases in nucleic acids, twenty-odd amino acids in proteins, both of which were linear polymers, to the $>10^{12}$ structural possibilities available to a hexasaccharide. He explained how the myriad structural possibilities were organised to modulate recognition phenomena, demonstrating this by scratching his arm and reddening it, thereby promoting an inflammation response initiated by protein-carbohydrate interaction. In addition to their importance to regulation, sugar polymers were also the main component of plant biomass. With the aid of diagrammatic slides showing the many components of the plant cell wall and the various enzymes which depolymerised them, he explained how certain types of polysaccharides formed ribbons and fibres, and others formed helices.

Biofuels are defined as liquid fuels derived from plant biomass. The “first generation” biofuels were derived from helix-forming starch or sucrose by fairly simple processes, involving at most a few hydrolytic enzymes, followed by fermentation. Unfortunately starch and sucrose are human foodstuffs, and the economic result of subsidised first generation biofuel production is to increase global food prices. Second generation biofuels rely on saccharification of the structural polymers of plant cell walls, most importantly cellulose, which differs from starch only in the configuration of one carbon atom in the six-carbon glucose monomer, but is an intractable and insoluble material, unlike starch. The monomeric sugars are then fermented to ethanol in the usual way. The biomass may be agricultural or forestry waste, or crops grown specifically on marginal land not used for food production. The study of the enzymic hydrolysis of cellulose dates from WWII, when the fungus now known as *Trichoderma reesei* was found to be responsible for dissolving the canvas tents of US forces in the Philippines. Progress using classical enzymological approaches was slow until the introduction of molecular genetic techniques, first by the State Technical Institute of Finland in the 1980's. Into the 21st century searches were made for fungi and bacteria which hydrolysed cellulose: with the advent of a huge biofuels programme in the US during the Bush 43 administration, the number of new cellulase producing organisms increased dramatically, at least until the recent fall in oil prices.

The speaker then described his own researches on an oxidative component of cellulase complexes. Early workers, such as ET Reese in the 1950's, had posited that certain components of the cellulase mixtures were not hydrolases but solubilising or disaggregating factors, and in the 1970's KE Eriksson had demonstrated that these disaggregating factors required oxygen. The paradigm had, though, been established that cellulose disintegration was an exclusively hydrolytic process until the second decade of this century, when the speaker discovered a copper-dependent oxidase, which disrupted the surface layer of cellulose crystal, cleaving the chain to yield a lactone at the point of cleavage, which used a novel N-methylated histidine residue to coordinating the single copper atom.

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The practical aspects of second-generation biofuel plants were then discussed, including the massive amounts of bulky biomass needed, and the net energy gain. The audience was left to draw its own conclusions about the desirability or otherwise of biofuels. A very extended discussion session followed.

Professor Kevin Taylor, University of Manchester, gave the last lecture of the year on **16th May 2016** entitled *Shale Gas in the UK – what, where and how: a geologist's perspective*. He started by explaining what hydraulic fracturing ("fracking") was. The aim was to liberate methane and smaller quantities of other very low molecular weight organic molecules from the shale (a sedimentary rock) in which it resided: the liberation was a physical, not a chemical process (higher MW hydrocarbons in oil shale were obtained by a completely different process). The gas shale lay at a depth of between 1000-15000 feet, and extraction therefrom was critically dependent on the recent development of horizontal drilling: the pipes were drilled vertically, and then were turned in a very gentle curve through 90°, so that the drill bit into the rock and progressed horizontally: it appears from *Wikipedia* that simple rotatory steerable systems combined with very precise (satellite) location of the bit in three dimensions are used.

With the hole in place, water and sand are injected into the rock formation. Methane is held in cavities with exit holes similar to the diameter of the hydrocarbon, so the water erodes some of the cavity wall and the sand "props open" the widened holes. Very fine cracks and channels were opened up in the shale, and about 8% of the methane and a larger, but still small, proportion of the injected water flow to the surface. Guar gum (a polysaccharide) is added to the water as a viscogen: as it is a good carbon source biocides also have to be added.

The use of fracking is restricted by geology, environment, and public acceptance. In North America the very large Bakken shale field in the high prairies (North Dakota, Saskatchewan, Montana, Manitoba) and Barnett shale field in Texas were important. In the UK the Bowland-Hodder carboniferous shale under the Lancashire-Yorkshire industrial belt was the most promising, and the first to be investigated. The earthquakes caused by fracking are small (magnitudes -3 to 0 (presumably Richter)) : however Lancashire is riddled with earthquake faults, and test drills in Blackpool resulted in detectable movements in small areas (magnitude about -2), caused by injection of lubricating fluid into small faults (the spontaneous Manchester earthquake swarm of 2002, by contrast, had magnitudes 2.3-3.9). Fracking uses large volumes of water, limiting its use in arid areas. In non-arid areas the returned wastewater can be difficult to treat, as it contains salts and organic materials, and ²²²Rn formed as an intermediate in the ²³⁸U decay series (²²²Rn has a half-life of only 3.8 days, so the problem disappears in settling ponds). If the pipe system is not drilled and maintained properly, the returned water can contaminate groundwater.

Professor Michael Sinnott

Chair, Science and Technology Committee

6th August 2016

Lectures arranged by the Social Philosophy Committee

The first lecture arranged by the Social Philosophy committee was given in September by **Dr Susanne Shultz**. She spoke with great clarity under the title ***The African Rift Valley, Climate Rollercoaster and Human Evolution*** explaining how the East African Rift Valley is undoubtedly the evolutionary cradle of hominins. In November **Judith Wilshaw** discussed ***Baronies, Manors and Royal Hunting Forests***. To illustrate the ancient arrangements she described in some detail the Stockport and High Peak area - chosen because it is relatively close to Manchester and therefore familiar to many members.

December brought **Sir Ivor Crewe** whose academic work focuses on British politics. In the annual Ramsden Lecture ***Why Is Britain Badly Governed and What Might Be Done About It?*** he explained why too many policy initiatives fail to meet their objectives, waste large amounts of money and cause widespread dissatisfaction amounting, sometimes, to human distress. In January we heard **Dr Mike Nevell** talk about ***Excavating Engels: Exploring the Archaeology of Manchester's Industrial Housing***. He explained how materials excavated from areas such as Angel Meadow, Ancoats and the New Islington area of Salford can illustrate issues raised by contemporary social commentators such as Engels.

A change of direction brought us, in February, to ***Supertrams and Metros: Keys to Urban Regeneration or Vanity Projects?*** in which **Professor Richard Knowles** told us about the wider gains for communities brought by modern tram systems. In April **Dorothea Kazounis** gave us ***An Introduction to Non-Verbal Communication in Human Interaction***. She explained what is meant by non-verbal communication and pointed out how much of our communication is non-verbal as well as demonstrating our sometimes unintentional physical movements while speaking.

The beginning of May saw a visit by **Elaine Griffiths** who told ***The Story of Manchester's Taj Mahal***. This is the name given locally to the Gorton Monastery during its regeneration into Manchester's Modern Day Monastery. She described the setting up of the Monastery Trust in 1996 and the subsequent struggle to rebuild one of Manchester's most beautiful buildings.

Unusually the committee had been asked to arrange eight lectures this season and the final one was given by **Professor Hillel Steiner** at the end of May. In ***Silver Spoons and Golden Genes: Talent Differentials and Distributive Justice*** he addressed the question of whether the demands of distributive justice can be brought to bear on genetic inequalities.

Sadly Professor Keith Ross, husband to Judith Ross who chaired the Social Philosophy Committee, passed away suddenly mid-season so the committee had to manage with an acting chairman for the remainder of the year.

N P Barnes

Acting Chairman - Social Philosophy Committee

Lectures arranged by the Young People's Committee

Our Section's programme consisted of the usual three lectures plus an extra lecture in conjunction with the University of Manchester and were delivered by high quality speakers who are equally at home giving talks to school students or the general public. Typically, our speakers were leaders in their fields with active involvement in research. Hence, they were well qualified to deal with current issues related to their topic and speculate on likely future developments and their importance both for science generally, and for applications of the technology for the benefit of society. Such speakers are attractive not only to students at the start of their careers but also to our membership, whose knowledge of the subject matter can be some years out of date.

1. On **Wednesday, 11th November 2015**, our speaker was **Professor David Southwood**, the immediate past president of the Royal Astronomical Society of London. He spoke on "**The Huygens Probe at Titan, Philae at Comet 67P: Happy landings**". Most of his career was as a space scientist and eventually Head of Physics at Imperial College, London. From 2001-2011, he was Director of Science and Robotic Exploration at the European Space Agency (ESA) and launched various space telescopes and spacecraft to targets including the Comet Churyumov-Gerasimenko, and Saturn's moon, Titan, in 2005. Formally retired, he retains a position at Imperial College, and on UK, European and US advisory bodies. During his time at the ESA, projects became more ambitious; they developed from hitching a ride with American satellites to purely European efforts that successfully landed satellites on their targets.
2. Our second speaker, (**Professor Matthew Cobb**, University of Manchester) gave a fascinating talk on "**The Sense of Smell**" on **13th January 2016**. The sense of smell, or olfaction, is the oldest sense there is, and yet we still do not fully understand how it works. There are essentially an infinite number of potential smells, but unlike visual or auditory stimuli, we cannot describe how they vary. To understand how smells are initially processed by the nervous system Professor Cobb studies genetically modified maggots with a single smell cell. Although maggots and humans are very different - a normal maggot has just 21 smell cells, while a human has 4 million - the wiring diagram of the way our brains process smells is essentially the same. Audience participation showed that humans can detect differences between smells consisting of a single atom, and audience responses to one particular smell can be used to identify the precise DNA sequence of each individual. The DNA sequences of extinct humans, such as Neanderthals can be used to understand how these populations were able to smell.
3. Our third talk on **2nd February 2016** was titled "**Anaesthesia & Critical Care in Action**". It was a team effort by **Peter Nightingale, Brendan McGrath & Peter Alexander**, a group of Consultant Anaesthetists from the University Hospital of South Manchester. They have a special interest in caring for critically ill patients (they are often called Intensivists since they work predominantly on the Intensive Care Unit). Anaesthetists are doctors tasked with taking care of patients in many parts of the hospital and undergoing many different procedures, usually under sedation, general anaesthesia, local and regional anaesthesia. Their job is to protect the patient from the environment and any damaging effects of the procedure they are undergoing. To do this, anaesthetists receive a comprehensive medical training (about 14 years from leaving school to becoming a consultant). During this time, they learn many practical procedures to help them maintain a patient's well-being. Daily, they use a number of tools and skills to diagnose and monitor patients who are very sick on the Intensive Care Unit or undergoing major or complex surgery of many types. Several of these techniques were demonstrated in the course of the evening.
4. Our 4th talk on **3rd March 2016** was in addition to our usual three talks. It was planned jointly with the University of Manchester's Student Recruitment (Widening Participation and Outreach

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Section). The Presenter, **Dr Amy Hughes** (Clinical Academic Lecturer in Emergency Response at the Humanitarian and Conflict Response Institute (HCRI), at the University of Manchester) spoke on “**Healthcare in Humanitarian Emergencies**”.

Dr Hughes is heavily engaged in development of the UK International Emergency Trauma and Medical registers. These were established to draw together clinicians interested in responding to sudden onset disasters and humanitarian emergencies as part of a medical/trauma team. The aim is to provide a structured approach to training and deployment of multi-skilled health care teams to ensure a needs-based, co-ordinated response. Amy is completing a PhD on the role of foreign medical teams in sudden onset disasters and contributes to the WHO Foreign Medical Team Working Group.

She is a course convenor for the HCRI Emergency Humanitarian Assistance module and Global Health Diploma. She is also an emergency medicine clinician in Derriford Hospital, Plymouth. Previous clinical work includes British Air Ambulances as part of a pre-hospital care team; a seven month mission with Médecins Sans Frontières in Northern Sri Lanka; retrieval registrar with Careflight and The Royal Flying Doctors, Australia.

Amy completed the Diploma of Tropical Medicine in 2006 and has a European Masters in Disaster Medicine. Her major interest is improved training and knowledge for health care professionals wishing to work in complex humanitarian environments.

When foreign medical teams provide emergency aid, a variety of other factors – such as culture, politics, logistics, and anthropology – influence the effectiveness of the humanitarian response. Drawing on examples from post-conflict in Northern Sri Lanka, Typhoon Haiyan in the Philippines, the West Africa Ebola outbreak and the recent Nepal earthquake, Dr Hughes explored the complexities, challenges and approaches to delivering healthcare during and in the aftermath of humanitarian emergencies.

This lecture provided an insight into the world of healthcare in humanitarian emergencies, highlighting the multiple factors affecting the outcome and gave attendees an opportunity to consider career pathways available for those interested in working in health, logistics and the humanitarian environment.

Dr Stuart Thompson
Chairman, Young Peoples Committee

August 5th 2016

The Manchester Literary and Philosophical Society

Trustees' report

The Trustees present their annual report and the audited financial statements for the year ended 30 June 2016 and confirm that they comply with the requirements of the Charities Act 2011 and the Charities SORP (FRS102).

Objectives and activities

As determined by the Society's memorandum and articles of association the Society is established for the object of promoting the advancement of education and the widening of public interest in and appreciation of any form of literature, science, the arts and public affairs through a series of public lectures presented throughout the year.

We have referred to the guidance contained in the Charity Commission's general guidance on public benefit when reviewing our aims and objectives and in planning our future activities. In particular, the Trustees consider how planned activities will contribute to the aims and objectives they have set. The programme for the current year to 30 June 2017 is at an advanced stage and should be as varied and interesting as in previous years.

Review of activities

We have included separately, details of our activities in separate reports from our Sections which are:

- Arts Section
- Science and Technology Section
- Social Philosophy Section
- Young Peoples Section

In addition there are lectures arranged by Council and a report is included for these activities.

As in previous years the Society again enjoyed a very varied and interesting programme throughout the year. During a very difficult year for the Society - having to make a temporary and then permanent move of its base as well as working on a major upgrades to its IT systems, database, booking systems and interactive website - it has nevertheless still maintained its high level of activities which are contained in detail elsewhere in this report.

Achievements and performance

The Manchester Literary and Philosophical Society, founded on 28 February 1781, is the second oldest learned society in Britain. Many of the founding members were medical men, resident in the King St, Piccadilly area of the city; the earliest meetings took place in a room in the original Cross St Chapel, but in 1799 the Society moved to 36 George Street, which remained its home until the Blitz of 1940. From 1960-1980, the Society enjoyed the facilities of its rebuilt home, but since 1981 has not had its own premises; today it operates from an office and small library on Deansgate.

By the 1860s, membership had expanded to over 200 and included prominent merchants, engineers, and manufacturers. Women were not admitted to membership until the beginning of the 20th century. Many famous scientists, engineers, physicists and mathematicians have been members of the Society, the most famous being John Dalton, the 'father of modern chemistry', a member from 1794 until his death in 1844. Much of his original research was done in a laboratory at the Society's George Street House.

Other notable past members include Dalton's gifted pupil James Prescott Joule, Peter Mark Roget, the originator of the Thesaurus; William Fairbairn the engineer; Henry Roscoe the chemist; Ernest Rutherford the nuclear physicist; Joseph Whitworth the precision engineer as well as Professor Tom Kilburn and Alan Turing, computing pioneers.

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Our achievements are our ability to produce lectures and events of the highest calibre on a wide and varied number of topics. To appreciate this you need to visit our website to be able to review for yourself the programme for our 2016/17 session.

To focus on the performance levels, rather than view this statistically, an appreciation of our history is worthwhile. On our website in the 'Archived News' section you can read an article entitled 'The Olden Days at the Lit & Phil' by Marjorie Ainsworth. This article written by a 92 year old commences with her membership in 1955. Reading the article and considering our current activities in the light of this should indicate to members a high level of current performance and a high standard to maintain.

Financial review

The Treasurer's report on pages 5 and 6 sets out the financial highlights arising from the Society's activities during the year. We made plans last year to upgrade our website and modernise our methods of providing information. We also implemented a new database system to enable additional facilities including being able to accept debit and credit cards, which together with two office moves, new office computers and server form part of the advancements we made during the year. This has come at a cost and a planned deficit of £26,321 has resulted from our activities and the above. The value of our investment portfolio has fallen by £41,943 of which approx. £20,000 of this fall is reflected in our increased bank balance.

Investment policy and returns

The Society has adopted a total return approach for its investment portfolio. As permitted by the Society's memorandum and articles of association, the trustees have given Brewin Dolphin discretion to manage the portfolio within an agreed risk profile working towards a target return.

Investment income amounted to £48,736 (2015-£47,900) giving a gross yield of approx. 3.6%.

Risk management

Systems and controls have been and are being established to mitigate risks and will be periodically reviewed to ensure that they meet the needs of the Society.

Reserves policy

Reserves consist of an expendable endowment fund; that is a fund whose primary purpose is to generate income to fund the Society's activities, but may also be used directly for charitable purposes in case of necessity or good reason.

The fund currently enables the investment return to support the Society's activities at the rates of return achievable in the market. The trustees will continue to manage reserves by careful stewardship of the Society's resources and controls over expenditure.

Structure, governance and management

The Society is a registered charity and is incorporated under the Companies Act as a company limited by guarantee. The guarantee of each member is limited to £10 and is payable in the event of the Society being wound up and being unable to meet its debts and liabilities. The organisation is overseen by a Council elected at the Society's Annual General Meeting. The President and Vice Presidents serve for a period of two years, officers are elected each year, other trustees serve for a period not exceeding two consecutive periods of two years. The Chairman of each Section is a full member of Council by the right of that office. Council meets at least five times a year. The Society's officers meet approximately ten times a year to supervise the operational activities undertaken by the administrators.

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Trustees

The Trustees who served in the year are set out on page 2. Trustees are all familiar with the operations of the Society, and are guided by the officers in matters relating to their legal obligations under charity and company law, the content of the Memorandum and Articles of Association, budgets and the financial performance of the Society. Trustees are encouraged to attend external training events, where these may be appropriate to their role.

Auditors

A resolution to reappoint Beever and Struthers as auditors to the Society is to be proposed at the forthcoming Annual General Meeting.

Statement of Trustees' responsibilities

United Kingdom company law requires the directors of a charity (namely the trustees) to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity as at the end of that financial year and of the incoming resources and application of resources of the charity for that year. In preparing those financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Society will continue in operation;
- observe the methods and principles of the Charities SORP; and
- state whether applicable accounting standards have been followed, subject to any departures disclosed and explained in the financial statements.

The Trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Society and to enable them to ensure that the financial statements comply with the Companies Act 2006, Charities Act 2011 and Charities SORP (FRS102). They are also responsible for safeguarding the assets of the Society and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The trustees are responsible for the maintenance and integrity of the charity and financial information included on the charity's website.

In accordance with Company Law, as the Society's directors, we confirm that:

- so far as we are aware, there is no relevant audit information of which the Society's auditors are unaware
- as the directors of the company we have taken all steps that we ought to have taken in order to make ourselves aware of any relevant audit information and to establish that the Society's auditors are aware of that information

By order of the Trustees
J S Buckley
Secretary

Independent Auditor's Report to the Members

We have audited the financial statements of The Manchester Literary and Philosophical Society for the year ended 30 June 2016 set out on pages 25 to 32. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the Charity's trustees, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable company's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of trustees and auditor

As explained more fully in the Statement of Trustees' Responsibilities set out on page 22, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Financial Reporting Council's Ethical Standards for Auditors.

Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the charitable company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the trustees; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Trustees' report to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 30 June 2016 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

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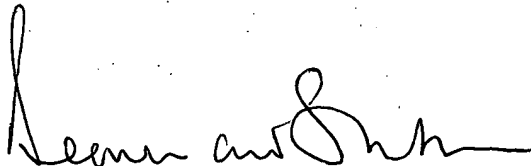
Opinion on other matters prescribed by the Companies Act 2006

In our opinion the information given in the Trustees' Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.



Christopher S Porritt (Senior Statutory Auditor)

For and on behalf of

Beever and Struthers

Chartered Accountants & Statutory Auditors

St. George's House

215-219 Chester Road

Manchester

M15 4JE

Date: 22nd August 2016

The Manchester Literary and Philosophical Society

Statement of Financial Activities Year ended 30 June 2016

UNRESTRICTED FUNDS			
	Note	2016 £	2015 £
INCOMING RESOURCES			
Donations and Legacies	2	2,000	500
Income from Investments	3	48,736	47,900
Income from charitable activities	4	32,432	40,689
TOTAL INCOMING RESOURCES		83,168	89,089
RESOURCES EXPENDED			
Costs of generating funds	5	11,432	11,880
Costs of charitable activities	6	98,057	72,812
TOTAL RESOURCES EXPENDED		109,489	84,692
NET (OUTGOING)/INCOMING RESOURCES		(26,321)	4,397
Realised and unrealised profits on investment assets		4,041	1,611
NET MOVEMENT IN FUNDS		(22,280)	6,008
TOTAL FUNDS BROUGHT FORWARD		1,360,853	1,354,845
TOTAL FUNDS CARRIED FORWARD		1,338,573	1,360,853

All the above results derive from continuing operations. There are no other recognised gains and losses other than the results for the above years.

The notes on pages 27 to 32 form an integral part of these accounts.

The Manchester Literary and Philosophical Society

Balance sheet

Year ended 30 June 2016

	Note	2016 £	2015 £
FIXED ASSETS			
Tangible assets	9	1,300	375
Investments	10	1,305,703	1,347,646
		<u>1,307,003</u>	<u>1,348,021</u>
CURRENT ASSETS			
Debtors		3,133	2,226
Tax repayment due		6,875	9,880
Prepayments and accrued income		170	520
Cash at bank and in hand		46,125	18,295
		<u>56,303</u>	<u>30,921</u>
CREDITORS: amounts falling due within one year	11	<u>24,733</u>	<u>18,089</u>
NET CURRENT ASSETS		<u>31,570</u>	<u>12,832</u>
NET ASSETS		<u>1,338,573</u>	<u>1,360,853</u>
FUNDS OF THE CHARITY			
Unrestricted funds			
Expendable endowment fund		<u>1,338,573</u>	<u>1,360,853</u>
TOTAL FUNDS		<u>1,338,573</u>	<u>1,360,853</u>

These financial statements on pages 25-32 were approved and authorised for issue by the Trustees at a Council meeting held on 22nd August 2016 and signed on its behalf by:


JOHN S BUCKLEY

Secretary


D S BROWN

Treasurer

Company Registration Number 9330.

The notes on pages 27 to 32 form an integral part of these accounts.

Notes to the financial statements Year ended 30 June 2016

1. Accounting policies

Basis of preparation

The financial statements have been prepared under the historic cost convention, with the exception that investments are included at market value. The financial statements have been prepared in accordance with the Statement of Recommended Practice: Accounting and Reporting by Charities (SORP 2005) issued in March 2005 and applicable UK Accounting Standards, Companies Act 2006 and the Charities Act 2011.

The Society constitutes a public benefit entity as defined by FRS102.

The accounts are presented in £ Sterling.

In applying FRS102 and the Charities SORP FRS102 for the first time no restatement of comparative items was needed, save for the disclosure of investment gains/(losses) now shown as a component of income. This had no impact on total fund movements.

Incoming Resources

All incoming resources are included in the Statement of Financial Activities and include:

- **Investment income**
Investment income is accounted for when receivable.
- **Legacies**
Legacies and donations are accounted for when receivable by the Society.
- **Subscriptions**
Subscriptions are accounted for when receivable and include the Gift Aid tax recoverable.

Resources Expended

All expenditure is accounted for on an accruals basis and includes:

- **Charitable expenditure**
Charitable expenditure includes all expenditure directly related to the objectives of the Society.
- **Governance Costs**
Governance costs represent expenditure incurred in the management of the Society's assets and compliance with constitutional and statutory requirements.

Restricted funds

Restricted funds arise where the use has been restricted by the donor or by the terms of an appeal.

Unrestricted funds

The expendable endowment fund represents funds whose primary purpose is to generate income to fund the Society's activities but may also be used directly for charitable purposes in case of necessity or good reason.

Tangible fixed assets

Fixtures, fittings and office equipment are stated at cost less depreciation. Depreciation is provided at 33% per annum on the cost of computer equipment and at 10% per annum on the cost of all other fixed assets, which represents the estimated useful lives of the assets.

The Manchester Literary and Philosophical Society

Notes to the financial statements (continued)

Year ended 30 June 2016

Tangible fixed assets

Fixtures, fittings and office equipment are stated at cost less depreciation. Depreciation is provided at 33% per annum on the cost of computer equipment and at 10% per annum on the cost of all other fixed assets, which represents the estimated useful lives of the assets.

Investments

Investments are stated at market value. Realised and unrealised gains and losses are shown in the statement of financial activities.

Taxation

The company is a registered charity and therefore exempt from taxation.

Operating Leases

Rentals under operating leases are charged to the statement of financial activities in the year to which they relate

Cashflow Statement

The Society has taken advantage of the exemption referred to in FRS102, Section 7, in not preparing a cashflow statement.

2. Donations and Legacies

	2016 £	2015 £
Donations	2,000	500

3. Income from Investments

	2016 £	2015 £
Listed investments	48,672	47,878
Bank Interest	64	22
Total	48,736	47,900

4. Income from Charitable Activities

	2016 £	2015 £
Subscriptions and Gift Aid	32,333	34,442
Sponsorship	-	6,000
Sundry Income	99	247
Total	32,432	40,689

The Manchester Literary and Philosophical Society

Notes to the financial statements (continued)

Year ended 30 June 2016

5. Costs of generating funds

	2016 £	2015 £
Investment management fees	11,432	11,880

6. Costs of charitable activities

	2016 £	2015 £
Governance costs	3,000	3,000
Costs of Society's activities	95,057	69,812
Total	98,057	72,812

7. Analysis of total resources expended

	2016 £	2015 £
Charitable expenditure		
Rent & meeting costs	6,100	6,000
Legal & professional re Lease	2,350	-
Website & database implementation	13,418	-
Maintenance expenses	50	223
Staff costs	33,866	30,003
Functions and meetings costs	22,128	17,558
Computers & Internet Costs	842	801
Library	-	102
Printing of memoirs & programmes	1,756	7,359
Stationery and photocopying	1,372	2,395
Postage, telephone and equipment hire	2,261	2,309
Insurance	1,703	1,650
Depreciation	536	664
Audit fee (including VAT)	3,000	3,000
Investment management fee	11,432	11,880
Sundries	788	748
Bank & PayPal charges	885	-
Promotional expenses	731	-
Removal costs	6,271	-
Total	109,489	84,692

The Manchester Literary and Philosophical Society

Notes to the financial statements (continued) Year ended 30 June 2016

8. Information regarding employees

	2016 No	2015 No
Average number of employees during the year:		
Administration	2	2
	<u>£</u>	<u>£</u>
Staff costs comprise:		
- Salaries	33,539	28,113
- Social security costs	327	1,890
	<u>33,866</u>	<u>30,003</u>

No Trustees or person related or connected by business to them, has received any remuneration from the Society during the year.

9. Tangible fixed assets for use by the society

	Library Fixtures and Office Equipment £
Cost	
At 1 July 2015	29,438
Additions during the year	1,461
At 30 June 2016	<u>30,899</u>
Accumulated depreciation	
At 1 July 2015	29,063
Charge for the year	536
At 30 June 2016	<u>29,599</u>
Net book value	
At 30 June 2016	<u>1,300</u>
At 30 June 2015	<u>375</u>

The Manchester Literary and Philosophical Society

Notes to the financial statements (continued) Year ended 30 June 2016

10. Investments held as fixed assets

	2016 £	2015 £
Total investments		
Market value at 1 July 2015	1,347,646	1,367,046
Additions at cost	659,906	75,207
Disposals at carrying value	(705,890)	(96,218)
Net gain on valuation	4,041	1,611
	<u>1,305,703</u>	<u>1,347,646</u>
Market value at 30 June 2016		
	<u>1,305,703</u>	<u>1,347,646</u>
Being at market value:		
Listed investments	<u>1,305,703</u>	<u>1,347,646</u>
Historical cost at 30 June 2016	<u>1,246,865</u>	<u>1,244,583</u>

Investments were revalued at middle market value at the year-end as determined by Brewin Dolphin.

The investment portfolio is structured as follows:

	2016 £	2015 £
Direct investment	675,656	812,295
Indirect investment	630,047	535,351
	<u>1,305,703</u>	<u>1,347,646</u>

The investments held as fixed assets are subdivided as follows:

	2016 £	2015 £
Investment assets in the UK	763,741	812,293
Investment assets outside the UK	541,962	535,353
	<u>1,305,703</u>	<u>1,347,646</u>

The investments representing more than 5% of the total portfolio value was in Aviva Investors - Multi Strategy (5%), J P Morgan - US Equity (5%) and Aviva UK - US Equity (5%). In 2015, there were investments in JP Morgan – US Equity (5.6%), Aviva UK – US Equity (5.6%) and Standard Life – European Equity (6%).

The Manchester Literary and Philosophical Society

Notes to the financial statements (continued) **Year ended 30 June 2016**

11. Creditors: amounts falling due within one year

	2016	2015
	£	£
Accruals and deferred income	<u>24,733</u>	<u>18,089</u>

12. Operating lease commitments

The lease commitments relate to our new lease for the office premises at Church House, Deansgate which commenced in April 2016 for a 10 year term and our photocopier which is shown as having a one year term.

The total of future minimum lease payments at the end of the reporting period, for each of the following periods:

	2016	2015
	£	£
Not later than one year	10,085	773
Later than one year and not later than five years	37,248	-
Later than five years	44,232	-