

A SHORT HISTORY OF

# Lichfield



Science & Engineering  
Society

**1985 - 2010**



# Lichfield



## Science & Engineering Society

The Lichfield Science & Engineering Society was founded in 1985, and by 2010, its Silver Anniversary year, had 330 members, residents of the city of Lichfield and its surrounding area.

Four members decided that a short history of these years would be of interest to present and future generations, and the Society is indebted to them for their contributions.

**1986 - 1992**

***Fred L. Mitchell***

**1991 - 1996**

***Richard Miller Yardley***

**1996 - 2001**

***John A K Swinnock***

**2001 - 2008**

***Clifford E Ricketts***

**2008 - 2010**

***Brian Hammond***

***With help from the founder***

***John Kibble***

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First published 2002  
Updated and reprinted 2008  
Updated and reprinted 2010

## Preface

The Society looks to Erasmus Darwin as its “Patron Saint”. As a leading member of the famous Lunar Society, he played an important part in the great upsurge in science and its applications which started in the 18th century. But the resulting Industrial Revolution largely passed Lichfield by, nor was there any equivalent here of the august “Phil & Lit” Societies elsewhere in the country, or the Institutes where workers strove for self-improvement. Even latterly, when transport made possible the big residential expansion of the town, it could hardly have been anticipated that it would become the home of a body whose vitality and success would compare with anything of the kind in the country.

The (unplanned) secret of the development of our Society seems to have been the combination of opportunities for sharing interests, in all the different branches of science and technology, in an informal social context where no distinction is made between experts and complete beginners.

For speakers, we are proud that we are now able to obtain the services of nationally-known personalities, whilst in Lichfield we are fully recognised as part of the community, though we have many members from further afield as well. Our aim of serving the rising generation is also fulfilled with contacts with many schools, though we understand that attendance by youngsters at meetings is somewhat limited by the very structured nature of education these days.

The Society has throughout been extremely well served by its office-bearers. It is to be hoped that the story of their work in this booklet will point the way to continued progress in the future.

*John Kibble*

## A SHORT HISTORY OF LICHFIELD SCIENCE & ENGINEERING SOCIETY

A characteristic of Lichfield is that there is a high proportion of professional people amongst its residents, yet for those who wish to take part in the activities of scientific or technical institutions, the City is a fair distance from where their meetings are usually held. This limited the opportunities for getting to know people with similar interests and, very importantly, limited any assistance schools might receive in the areas of science and engineering and the prospects for related careers. Mr John Kibble, a mechanical engineer, felt this keenly and, taking the opportunity of the availability of a speaker and demonstration equipment from a local pneumatics firm, organised an initial double event in 1985. In the morning a number of schools sent parties to a meeting where technologists were present to answer their questions. A repeat presentation in the evening was well attended by adults and at its end there was warm agreement to a suggestion that activities of this kind could be the basis for a society.

A small Committee was formed and held its first meeting in John Kibble's house, 21 Quarry Hills Lane, on 21st February 1986. The first officers were agreed as those present:

Chairman:	Mr J Kibble
Secretary:	Mrs E Scott
Treasurer:	Mr R Britain
Schools Liaison Officer:	Mr A Potter
Apologies were received from: Mr R Oakley	

It was confirmed with the local branch of the Institution of Mechanical Engineers that any Lichfield events would not be regarded as competition. Membership would be open to all, with no qualification being required.

Agreement was reached on publicity and an annual subscription rate of £2.50 (students free). The first public meeting under the Society's name was led by Mr T K Hillman, speaking on "Uranus, Halley's Comet and all that". The appearance of the comet was imminent at the time. Attendance at this meeting, held in the Boley Park Community Hall, was 60 and at the second 26. At the second meeting of the Committee on

2nd May 1986 Society membership was 13 + 5 students. It was agreed that five or six meetings should be arranged for the coming winter programme and non-member visitors should be charged 50p. The venue was changed to St Mary's Centre and it was agreed that an endeavour should be made to organise daytime meetings in schools.

Mr Bill Attrill and Dr Fred Mitchell joined the Committee on 21st April 1987. Society membership was 34 + 5 students and the bank balance was £2.79, members of the Committee having subscribed to prevent the balance running into deficit. It was agreed that local charities and firms should be approached for possible financial support.

It was also agreed at this time that coffee and biscuits should be served at each evening lecture during an interval between the lecture and the discussion: Mrs Mary Attrill agreed to organise this. She continued the good work for one year after her husband died in 1989, when Mrs Audrey Mitchell took over. When Audrey's husband relinquished the Secretaryship in 1992, Mrs Barbara Lobleigh continued for one year. Mrs Peggi Miller Yardley and Mrs Marjolène Swinnock (the successive Chairmen's wives) manned the fort until relieved in 2001 by Mrs Brenda Towlson.

On 22nd May 1987 Mr John Freeth joined the Committee. A constitution prepared by a Lichfield solicitor, Mr Jon Mott, was presented to the Committee and an 'embryonic' AGM was scheduled for the following October. The first 'proper' AGM would be in October 1988.

As the Society's first major event specifically organised for schools, Dr Mitchell had persuaded an old colleague, the television personality Professor Heinz Wolff, to lecture at Chase Terrace High School. A dinner for Society members would be held in the evening at which Professor Wolff would speak, be presented with a cut glass bowl and be inaugurated as the first President of the Society. It was hoped that this pattern of activity might set a precedent for future Presidents and serve to attract similar prestigious persons. The Society could not afford a fee for these lectures but could pay travelling expenses.

Much effort at this time was being put into recruiting. One thousand leaflets had been distributed to houses in Boleyn Park, producing 34 new members. Programmes and membership forms had been sent to other societies including Rotary, Probus, Lions, Civic Society and the Careers Guidance Society: the Fixtures List was to be inserted in the Birmingham

“What’s On”. In response to 65 attendees at meetings being asked to contribute to costs by joining the Society, no one had joined or made any contribution.

In July 1987 Mrs Scott, who had acted as a superb secretary for the first six Committee meetings, retired because of her husband’s impending move to Scotland and Dr Mitchell took over as Secretary. Mr Freeth agreed to act as Assistant Secretary.

Around this time it was noticed that a certain group of ladies, Mrs Sheila Buxton, Mrs Pauline Coles and Mrs Barbara Lobley, were attending meetings. They had no connection with either science or engineering, but enjoyed an evening out in our company. This was particularly cheering when attendances could be somewhat thin, and their participation at meetings helped to keep the fledgling Society going. They have continued to attend almost every lecture and event held by the Society and as Society stalwarts are affectionately known as “The Three Graces”.

It was agreed to formalise the membership of the Committee to consist of: President, Chairman, Vice Chairman, Treasurer, Secretary and Assistant Secretary. The President would serve for one year only and the Officers, elected at each AGM, would serve until the following AGM.

In September 1987 friendly support with reciprocity for meetings attendance had been offered by the Burton-on-Trent Engineering Society. It was a matter of envy that they had some 30 sponsoring firms, each contributing £5 – £50 annually.

The fee for attendance at lectures by non-members was increased to £1 and the membership fee to £4 but even with an optimistic 75 members this would leave an annual shortfall of some £200.

The average attendance at meetings was 28 but one with only nine present was worrying. Professor Wolff’s lecture on 12th November 1987 drew 300 scholars. Fifty members plus guests attended the dinner.

Dr Norman Harkness joined the Committee at its meeting in November 1989 and Mr Bill Attrill was made Vice Chairman. Unfortunately Bill succumbed to liver cancer very shortly afterwards. He had been a considerable help in the difficult formative period of the Society and, as a tribute, the Attrill School Prize was named in his memory. Regrettably, the venture had to be abandoned through lack of interest at the schools.



Mr Freeth had to leave Lichfield because his work called him elsewhere. He had served well as Assistant Secretary and, on leaving, presented the Society with a water jug and glasses. Mr John Evans agreed to fill the vacancy of Assistant Secretary where his considerable prowess in computing together with his computing facilities subsequently proved invaluable.

Of the three Lichfield Charitable Trusts approached, the Swinfen Broun Trust had given £200 in 'pump priming' support. This was most welcome as the Treasurer now reported the balance in hand as £211.07. No positive response had been obtained from 15 local companies approached; indeed only one had replied and that negatively. Each Committee member was asked to contact selected companies again, offering Corporate Membership at £25 per annum with free attendance by employees at all the Society's ordinary meetings.

Membership of the Society at the AGM on 23rd March 1988 was 49 plus 9 students. A small number of adults were teachers with free membership, hopefully to encourage them to bring along parties of students to meetings. This arrangement was not productive and was terminated. The membership fee was increased to £5. At this time several Committee members were visiting schools, giving lectures or attending Careers Conventions.

By April 1988 the average attendance at lectures had risen to 37 and Society membership was 59 + 8 students. The Committee, with some relief, agreed that the Society was firmly established. Mrs Scott had succeeded in enrolling British Telecom as the only Corporate Member with a subscription of £100.

In June 1988 Mr David Durston joined the Committee and took over as Treasurer when Mr Brittain's employment took him overseas. Mr Alan Potter was appointed Vice Chairman after the death of Mr Bill Attrill. The first formal dinner of the Society was held in November 1988 in the Ballroom of the George Hotel. The Mayor and his Lady were present together with 38 members and Guests. Relationship with the Engineering Council progressed and the local representative addressed the Society.

A 'one-off' Members Evening was organised where members displayed items of interest on small tables around the room. Attendance was only

29 and the idea was not repeated. The Earl of Lichfield accepted an invitation to become Patron of the Society that year

In February 1989 the custom was commenced of entertaining speakers travelling from outside Lichfield to dinner before their lecture. This has proved a considerable success as a token of thanks and an opportunity for the chairman of the meeting to obtain background information on the speaker for use at the meeting. Lecturers accept that the Society is a professional body and, as is customary in such circumstances, consider they are lecturing to peers and do not require a fee. The fact that no qualification is required for Society membership has not jeopardised this happy state of affairs.

A vote of thanks from the 1989 AGM was sent to the St Mary's Trust for the usage of St Mary's Centre. The splendid venue added greatly to the stature of meetings.

In April 1989 Mr Evans, through his close connections with the Engineering Council, obtained a grant for the Society of £100 to help finance the promotion of engineering in schools, particularly the appointment of a 'link engineer' from the Society's membership to each comprehensive school. The Society already allocated £35 yearly to finance prizes in schools. Two representative students from schools were chosen each year to attend the Society's Annual Dinner; they each made a short speech and provided welcome added interest to the evening.

Around this time it was known that the Dean of the Cathedral had thoughts to restore and turn the somewhat derelict Darwin House, Erasmus Darwin's old home in the Close, into a History of Medicine Museum in memory of the remarkable man. Since Darwin's many activities involved science and engineering the Committee considered that the Society might be able to help in some way. The secretary approached the Dean with this in mind. He was very receptive to our ideas but our offer of help was never taken up.

In August 1989 the membership was 70 and it is interesting to note at this time that since the Society was formed the total 'throughput' of members was 106. The idea of an annual prestigious lecture given by a nationally or internationally known speaker was born during 1989 from a proposal that the Society might apply for a grant from the Royal Society or similar body. One criterion to qualify for this would require the applicant to

promote activities aimed at interesting and/or educating the public in science.

The venue for the Annual Dinner was moved to Tamworth College, where catering students under supervision would provide the meal. Supporting such activity agreed well with the aims of the Society and costs were considerably lower (£10 per head). The Society subsidised the dinner to cover invited guests who were: The Mayor/Mayoress and consort, the President and his Lady and two selected school pupils. Entertaining such persons was considered to be a function of the Society. The custom commenced of using the opportunity of the dinner to inaugurate the new President and present him with a crystal bowl. In later years it became the custom to give this bowl at the end of the Presidency.

The Society up until now had been using borrowed projection equipment and the first purchase of its own lecture room items took place in January 1990 with the acquisition of a screen for £90 and an overhead projector shortly after. Mr Fred Lewis constructed a portable lectern which made its impressive first public appearance at the inaugural Erasmus Darwin Memorial Lecture (see below) in November. At the 1990 AGM the annual subscription was increased to £6.

During 1990 a one-off ‘Tarmac Prize’ was provided by the Company for the sponsorship of a student to participate in The London International Youth Science Fortnight. Candidates were formally interviewed at their schools for this prize, culminating in the successful candidate being selected at Tarmac Headquarters by their senior staff and a team selected from Society members. The three runners-up were presented with a book and cheque for £30 provided in part by South Staffordshire Water plc.

The 1989 concept of an annual prestigious public lecture was followed up by an application to COPUS (Committee on the Public Understanding of Science, operated by The Royal Society, The Royal Institution and The British Association for the Advancement of Science). This had been successful and with part of the £1680 received it was decided to inaugurate an annual Erasmus Darwin Memorial Lecture. Mr Richard Miller Yardley would chair a Subcommittee to foster the scheme. The first lecture was held on 21st November 1990 with Dr Richard Dawkins speaking to a capacity audience of 400 in the Civic Hall, including 175 children in parties from 17 schools. His title was “Darwinising with a

Vengeance”. This initiative proved to be the start of an extremely successful annual event.

In connection with the Erasmus Darwin Memorial Lecture the Society produced a booklet from the writings of – and with the approval of – Desmond King-Hele, FRS, entitled “Erasmus Darwin 1731 – 1802, Master of Interdisciplinary Science” ISBN No. 9516744 0 4 Price £1.50. Subsequent sales of this book were disappointing but increased considerably when copies were handed over for sale at Darwin House on its opening to the public in 1999. By 2008 it had been reprinted three times.

During discussions with external advisers on furthering the promotion of the Society it was decided that a Society logo was required. Mrs Armour Brown, a Society member and highly respected local artist gave the question much thought and finally produced a design, based on an idea from Mr John Evans, with two symbolic ‘electrons’ orbiting the three spires of the Cathedral. Her proposal was accepted with acclaim.

While ideas for the establishment of the Society logo were developing it seemed appropriate that a model should be displayed in front of the lectern. Mr Norman Nicoll, a member of the Society and retired Vice Principal of The Lichfield College of Art, offered to produce the logo. This he did and the much admired result of his craftsmanship has been in use ever since.

Early in 1991 it was appreciated that the Society needed to ensure that all aspects of science and engineering which might be expected to be covered were indeed being dealt with. With this in view the 1991 AGM separated into groups to discuss activities under the following headings: (1) life sciences; (2) physical sciences; (3) computing; (4) leisure interests; (5) human sciences; (6) education. Over the coming year each group was to consider activities under its heading and report to the Committee as to what action might be taken.

By this time the attendance at meetings averaged 58 but it was realised that those attending the lectures had little opportunity for social contact. To provide a venue for those wishing to enjoy a social evening together, a small informal ‘Gourmet Group’ was formed to meet occasionally for a quality meal in convivial circumstances. The first of these was held at Tamworth College Restaurant on 27th March 1991 with 27 members and guests present. Its success was such that it was repeated over the next

few years at many different restaurants under the capable organisation of Mrs Pauline Coles. Regrettably this idea of a 'Gourmet Group' has lapsed.

During 1991, after studying the constitutions of several well-established national scientific societies the Secretary (Dr Fred Mitchell) extensively reviewed the Society's own Constitution in order to bring it more in line with national practice. In particular, time limits were placed on the tenure of office of the Society's officers. This new Constitution was accepted at the AGM held in 1992.

With the further passage of years and the growing success of the Society it was considered desirable to again review the Constitution. This work was undertaken by the Deputy Chairman, Mr Brian Hammond and the amended Constitution was adopted at the AGM held in 2006.

At the AGM in March 1991 Mr Richard Miller Yardley took over the Chairmanship from Mr John Kibble who had formed the Society and had done so much to make it a success. Uniquely he was made Vice President for life. In 2007 the Society learned with regret of John's death. His invaluable contribution to the success of the Society will always be remembered.

In the summer of 1991, the Chairman, Mr Miller Yardley, and his wife hosted a Garden Party at his home 'Hatching Tan' with tombola, games, a model railway exhibition and many more attractions. The money raised was used to purchase a laser pointer for use at lectures. This was the first of several such happy events at the Chairman's home.

In 1991 the idea was floated that the Society might organise a lecture in collaboration with the Lichfield International Arts Festival for delivery during the Festival. The intention here was to demonstrate to a wider public the essential link between scientific principles and the arts. The first lecture, entitled "Science and the Sounds of Music" was given to a capacity audience on 8th July 1991 and was most successful. This concept became established, with the Society participating each subsequent year in a wide range of science and arts subjects. By September 1991 the membership was 91 and Society funds totalled £1900.

During 1991 it was becoming apparent that the tasks of General Secretary and Meetings Secretary together were becoming too arduous for one

person and Dr Mitchell suggested that they be split. This was agreed and Mr Richard Tetley took over the preparation of the programme for 1992 – 1993.

A Society 'Trust Fund' was set up to commemorate Mr Bill Attrill and Mr Bill Leggate, two active and highly respected members of the Society who had passed on. The Fund would act as a deposit for memorial gifts or donations which the Society might receive. It would be used for awards, travel etc to be given to students as the Society might from time to time decide.

A cardinal objective of the Society was to have lectures of the highest calibre, not only in their content but also in the manner of their presentation. With this in mind, it was decided to equip the Society completely with its own audio-visual systems. The first purchase of audio equipment was of a wired 'Radio Shack' kit with both stand and tie microphones. This proved successful but had to be extended from two loudspeakers to four as audiences grew.

At the AGM in 1992 Dr Fred Mitchell was replaced as Secretary (also covering meetings) by Mr Don Busby taking over as General Secretary and Mr Richard Tetley as Meetings Secretary. Dr Mitchell became Vice Chairman and Mr Jim Howell replaced Mr David Durston as Treasurer.

It was agreed between the old Secretary and the new Meetings Secretary that, from experience in the past, the selection of lectures would be based on an equitable distribution between the following: -

Physical Sciences – Physics, all branches of engineering, chemistry and materials science, geology and astronomy.

Life sciences – Biology, medicine, agriculture and natural history.

Computing – Computing, mathematics and information technology.

Social Sciences – Psychology, sociology, industrial management, economics and scientific history.

Mr Tetley decided he would also try to balance the programmes between science/engineering, pure/applied and local/national, even if it took a cycle of more than a year. He also sought to have a series of events on the topics of the time, spread over more than one year, such topics being

molecular biology and genetics, energy, and information science / technology including telecoms.

Other activities of the society would concentrate on:

Education — Liaison with primary and secondary schools, further and adult education and industrial training.

Leisure interests — Model making, art, photography, music, sport and social activities.

During 1992 and 1993 a 'Computer Road Show' for 5th and 6th form school students was organised by Mrs Barbara O'Connor. This consisted of a hands-on exercise led by final year degree students from Birmingham Polytechnic as part of their degree project. It was funded by grants from the Staffordshire Partnership/TEC (£250 for 1992/3 and £450 for 1993/4) and was most successful.

The tradition for the incoming President to give a lecture that was attractive to students was, after discussion, thought not always to be appropriate and this practice has not always been followed.

Meetings attendance had now increased to an average of 45 Members and 10 guests. This helped to produce an annual surplus of income over expenditure of £200. The possibility of purchasing a slide projector from a London dental school came to nothing and reliance on borrowed equipment continued for the time being.

The Founding Chairman, John Kibble, was the driving force behind an ambitious project held in the Civic Hall — 'The Energy Show'. This demonstrated again to the general public the various aspects of energy use by modern society. It was well supported and deemed a success but it stretched the Society's capabilities somewhat and has not been repeated.

Publicity through the pages of the Lichfield Mercury in the reporting of our activities was at this time very successful due to the interest and involvement of the then Assistant Editor, Mr Kurt Calder, who eventually took over the Editorship. Unfortunately, due to the paper's change of ownership and subsequent change of policy, copy submitted had to be severely reduced and eventually general coverage of our Society (and others) ceased — not sensational enough.

The invitation to guest lecturers of national or international standing at the Erasmus Darwin Memorial Lecture meant that, in general, plans had to be made two years ahead. Before the second Erasmus Darwin Lecture in November 1991 therefore, the subjects and possible speakers for 1992 and 1993 were decided.

It was pointed out that President Yeltsin, the then new President of the USSR, was a Civil Engineer by profession and, as such, and as a gesture to improve international relations, he might appreciate an invitation to become an Honorary Member of the Society. The Chairman and Secretary composed a suitable invitation — possibly with tongue in cheek — but in spite of a follow-up letter nothing came of the idea.

In the autumn of 1991 cooperation between Miss Mary Durose, of the Lichfield Technical College, and Mr Richard Tetley, resulted in the Society having its first proper headed note paper.

The second Erasmus Darwin Memorial Lecture was not a success, probably because the speaker either did not understand fully his remit or what the audience was expecting. The Chairman of the Lecture Committee made the point most strongly that, as a matter of policy, all future lecturers must be either known to the Society or should be fully briefed by the Erasmus Darwin Memorial Lecture Chairman. The point was also made that speakers over a certain age often lack the vital charisma to hold an audience containing many teenagers. At this time the Meetings Committee Chairman and Secretary, together with other members of the Society who were able, started to attend the British Association Annual Conferences. These proved to be a valuable showcase for the identification of future lecturers and the route identified Professor Ian Fells, Sir Robert May and Baroness Greenfield. Professor Collins of Rolls-Royce was also heard speaking at such a conference and subsequently became the Society's President.

Although Tamworth College had proved in many ways a good venue for the Society's Annual Dinner, the dining room ambience was not ideal and, with the benefit of Mrs Mitchell's professional advice, Walsall College was visited and chosen in 1992 as the venue of choice for the future.

Subsequent to the opening of the local Toyota car factory, a School Liaison Committee under the chairmanship of Mr John Kibble



encouraged a group of some 20 senior pupils to attend a lecture on Japanese Management Techniques.

At the AGM in 1992 Mr Richard Tetley presented a comprehensive programme for 1992 – 1993, a considerable achievement after a very short period in office. The Society received an invitation to contribute to the Edinburgh Science Festival but this was declined due to lack of time before the event.

In June, the President, Mr Brian Mather, instead of giving a 'Presidential Lecture', held a very successful open meeting at Chase Terrace High School (where he was Head Teacher), with a presentation of science and technology activities within the National Curriculum.

In September, the Chairman proposed a comprehensive concept of a Benevolent Fund, an idea originally suggested by Mr John Kibble. It envisaged funds to be accumulated by members' annual gifts, donations to the Society in lieu of funeral flowers and bequests. Drawing on the experience of many other bodies the Chairman suggested that where possible, members might consider bequeathing in their wills the modest sum of £250. This fund eventually and logically became the LSES Education Fund and by the turn of the century was able to function as a financial support to appropriate requests. It now benefits greatly from small but significant annual gifts from members when they pay their subscriptions.

Although the question of insurance for people attending Society events had been mooted for some time, after exploring not only the cost, but also what other similar societies did, it was decided that no action should be taken — subsequent reviews of the subject reaffirmed this decision. However, after transferring our lectures to the Lichfield Garrick Theatre, the management there included such a requirement in our contract of hire.

At this time, winter 1992, membership was static at about 100 'live' members. The Erasmus Darwin Memorial Lecture, due to great support and effort on behalf of the membership – responding to a MAYDAY call by the Lecture Committee – was back on course with a "full house". An excellent lecture, aided by high quality slide projection made possible by equipment lent by Birmingham Dental School, made the future look bright again for what was to become an immensely important and prestigious annual event.

After the initial separation of the education monies from the general account, due in the main to the COPUS grant, it was decided in March 1993 that this was no longer necessary, although separate accountability of the Education Fund was maintained.

With the increasing numbers attending meetings, the provision of coffee and biscuits was becoming a problem. It was decided that in future volunteers for kitchen duty should be asked for at the start of each meeting — a system which continued very effectively whilst the Society enjoyed the ambience of St Mary's Centre. The chore of providing the necessary coffee, biscuits and milk fell on the chairman's wife and friends!!

At the end of 1992, research showed that the cost of a commercially made Society Jewel would be high and again the talents of Mr Norman Nicoll, a skilled silversmith who had made the lectern logo (see above), were exploited and he created the much-admired Society Jewel we have today. The Society owes Norman a considerable debt of gratitude for applying his skills to our benefit. The Society was also grateful to a Past President, Mr Jim Carter, who had offered the Society £100 towards the cost of a jewel. The original suggestion was that it should be worn at meetings and other events by the highest-ranking Society officer present and as such, rather than being called 'The Presidential Chain of Distinction', it should be referred to as 'The Jim Carter Jewel'. This terminology has not stood the test of time.

Through John Kibble's involvement with the Engineering Council, the Project Director of the British Association mooted that the Society might become affiliated to the Association. It was deemed however, that whilst involvement with that prestigious body would be useful at several levels, formal affiliation should not be sought.

Some time later, with the reforming of the Birmingham branch of the BA, this decision was reconfirmed. (After all, our membership was larger and meetings better supported!!). A short-lived news-sheet similar to ones issued by other local societies was produced by the Secretary Mr Don Busby, but it was not popular. At this time it was agreed that the Society's Constitution should be amended so that the Education Fund would become a Trust within the Society. The trustees would be the Chairman, General Secretary and Treasurer and this revision was included in the 1992 amendment mentioned earlier.

In December 1993, after the sudden death of the Treasurer, Mr Jim Howell, an urgent reshuffle of officers was undertaken, with Mr Don Busby becoming acting Treasurer and Mr John Swinnock taking over as Acting General Secretary. The Chairman having made the point that suitable candidates for the Presidency were few and far between, proposed that the Committee might consider making this office a biennial one. This was agreed and subsequently Professor Alasdair Steele-Bodger graciously accepted his changed job description and conditions of service.

As befits a scientific body, illness among members is not commonplace, but it was felt that an extra effort should be made to ensure that information about members in this regard should, if available, be made known to the Secretariat so that any appropriate help might be given. This policy decision was made known to members in 1994, with limited effect however. During this year a regular relationship developed with the John Taylor School in Barton-under-Needwood, with members visiting and helping with various scientific exercises. This contact ceased with the departure of Mr Peter Shaw, the then Science Deputy Head.

In the autumn of 1994 an arrangement whereby “Link Engineers” who would liaise with schools was established and the creation of the ‘National Record of Achievement’ for all pupils was noted. To comply with requirements an embossing stamp was purchased to endorse each student’s ‘CV logbook’ when they attended LSES meetings. This facility only seemed to be used by them at the Erasmus Darwin Memorial Lecture and whether this initiative will be lost to education due to the welter of other paperwork, only time will tell.

After discussion with Mr Peter Shaw, the concept of Corporate Membership for schools was considered, with a ‘dedicated’ teacher to act as the liaison contact with the Society and action initiated. Such a teacher would be given free membership of the Society.

By December 1994 membership had risen to 149 with meeting attendance in the high 60s. The burgeoning success of the Society was, by the beginning of 1995, cause for concern, for with an ever increasing membership and the rising attendance at meetings, the safe capacity of St Mary’s Centre of 120 would soon be reached; already 80 – 90 was a regular figure. By now the Education Fund had reached £722 and it was agreed that £2,000 would be required to enable meaningful amounts to be available without diminishing the capital.

A lecture given by Mr Michael Fabricant (A Fellow of the Institution of Electrical Engineers – now the Institution of Engineering and Technology - and MP for Lichfield) commanded a record audience of 95 when he spoke at the Society's 1995 National Science Week lecture.

The Education Sub-Committee, it was felt, might be more effective if it were incorporated in the Main Committee of the Society. This decision was acted upon and Mr Matthew Bates, its convener, was co-opted on to the Main Committee.

In February 1995 meetings analysis showed that the '100 attendance barrier' had been broken and the Education Fund had risen to over £1200. In April 1995 seven schools were members of the Corporate Membership Scheme and by the end of 1995 school corporate membership had risen to 11.

The general membership was circulated with requests for personal details update and suggestions for future lecture topics but, more importantly, for expressions of willingness to help with the running of the Society. The response to this questionnaire proved very helpful and enabled the Meetings Secretary to produce a balanced programme, which to a great extent met the membership's wishes.

Dr Fred Mitchell suggested that the social life of the Society would be enhanced by having an informal supper evening at Curborough Hall Farm the next year (1996). This duly took place, was a great success with 60 present and a tradition for future years was established.

At about this time the venue for the Annual Dinner was again changed to the Clubhouse of Seedy Mill Golf Club. However this venue soon proved to be too small to cater for the continually growing membership of the Society and further moves were made to The Terrace Restaurant and Aston Wood Golf Club. Currently the Annual Dinner is held at The Oat Barn, Packington Moor Farm.

After a preliminary trial with borrowed equipment, a radio microphone unit was purchased for use by speakers, while the 'static' chairmen continued using the wired tie microphone. This proved to be a very satisfactory combination, especially as it was anticipated that St Mary's Centre was about to install its own sound system, enabling the Society to dispense with its own amplification and loudspeaker equipment, which

had to be stored, transported and erected for every meeting. A remote control for the slide projector completed the equipment upgrade.

By 1996 the Society had seen a period of rapid growth, with what is now the established pattern of the annual programme well in place — including the Annual Dinner, Supper Evening, Erasmus Darwin Memorial Lecture and the Lichfield Festival contribution. The priority now was to maintain the excellence and quality that had been created. Developments so far have been recorded chronologically but from this point a descriptive style would serve better to record a number of internal and external factors which were becoming apparent.

At the AGM of 1996 major changes had occurred amongst the Committee caused by the necessity for the replacement of ‘time served’ members under the Constitution. It was foreseen that the growth factor had the potential for creating problems in the future and some reorganisation would be necessary, particularly to reduce the onerous workload of the Meetings Secretary, Mr Richard Tetley. In the preceding years Richard had developed the programme responsibilities, not only to include the St Mary’s lectures, but also acting as an active partner in organising with Mr Miller Yardley, the Darwin Lectures. He was also organising the Annual Dinner and Supper Evening and acting as the Society’s stationer and keeper of membership lists. At the AGM, Mr Colin Davenport had come forward to take up the position of Meetings Secretary but with a more shared workload, being responsible only for the St Mary’s Centre programme and printing. The Annual Dinner became the Chairman’s responsibility. The two Richards retained the ‘flagship’ lectures and this arrangement remained until 1999 by which time they had organised ten of them. The arrangement of visits and the Supper Evening devolved to Mr Paul Bettson, a newly elected Committee member.

At this time the Education Fund had not reached the £2000 mark, the figure deemed to be the target required to produce an adequate amount of interest for the funding of appropriate projects. Mr Matthew Bates, having joined the Committee from the disbanded Education Sub-Committee, became co-ordinator of this aspect of the Society’s function.

Externally to the Society, the British Association Birmingham Branch had become defunct in the 1980s due to lack of support, and in 1997 a major effort was made to re-establish it with the appointment of a coordinator at the Birmingham Science Museum. The Society’s Chairman and

Deputy Chairman attended the Inaugural Meeting and one or two subsequent meetings with the object of establishing contacts for the LSES on a wider basis. It was concluded that the Society was attracting covetous eyes, with envy at the size of the average attendance at St Mary's. This was in the 80s compared with the 25 – 30 attending the Midland Region Meetings of the British Association. Contact was also established with the Birmingham branch of the Science and Technology Regional Organisation (SATRO), which was making strenuous efforts to reach school pupils. Mr Matthew Bates was also attending meetings of the Stafford SATRO on the Society's behalf. In the Birmingham area, the BA was looking at LSES's success and again the question arose as to whether the Society should become a branch of the BA. In SATRO's case there was a wish to extend their operations through the success and influence of the LSES, particularly in contacts with schools. The BA was asked whether it would consider an arrangement similar to an affiliation where, in exchange for an annual subscription from the Society, all members could avail themselves of the BA programme and events. This it declined as no such arrangement was provided for within the BA administrative procedures. At this time the BA annual subscription was £25 – very much higher than that for the Society. After some discussion the Committee formally rejected these proposals as being of no benefit.

The BA required bureaucratic central reporting which the Committee felt totally unnecessary for its own purpose, and there was a fear that such action would affect the individuality that was deemed to be one of the LSES's main strengths – that is, the strength and diversity of disciplines amongst the membership.

Other initiatives were being promoted at this time. One, under the chairmanship of Dr Stuart Guy, Head of Chemical Engineering at the University of Birmingham (later to be President of the LSES from 1999 – 2001) attempted to bring together the parties concerned with education in Science, Engineering and Technology, creating a one stop reference point to which prospective students and parents could go for advice. Birmingham SATRO would be the administrative centre. Alas this failed, largely because of the positions adopted by a number of the professional institutions with their jealously guarded membership criteria and unprofessional rates of subscription. In addition there were some attempts to break away from other bodies, for example a group of academics in the Birmingham Universities who sought to run their own programme.

LSES Committee members kept an eye on these developments to assess any advantage that might be gained. SATRO made known that it was responsible for the Nuffield Bursary scheme, which broadly offered senior school pupils £60 per week for a six-week period in any type of job involving Science, Engineering or Technology. Students were responsible for finding their own jobs and, through a teacher, obtaining approval from SATRO. At the end of the employment, they were expected to write up their experiences and express their views. The Society was offered six bursaries for the Lichfield incorporated schools. Mr Matthew Bates circulated all the schools for two consecutive years, without a single direct application. Two students from the John Taylor School attended a careers day in Birmingham and fortunately talked to representatives from SATRO who steered them towards the Society. They worked for six weeks in the Brewing industry in Burton and later gave a brief talk on their experience at the Annual Dinner. Bearing in mind the previous initiatives that had been tried it was a disappointing result and prompted much discussion as to 'why'. Teachers had been barraged with curriculum changes and other factors but concern was being expressed on the future use of the Education Fund. It was realised that perhaps the Committee's expectations were wrongly slanted and at this point Dr David Frean chaired a fact-finding meeting with the nominated teachers from the schools, of whom only a few attended. The result was again not encouraging because of the number attending but it was clear that a rethink was desirable and subsequently teachers have joined the Committee. There was difficulty in providing a worthwhile vehicle to promote Science, Technology and Engineering within the limited funds available and deciding how the money would be most satisfactorily spent in the minds of the membership. Just giving a sum of money is not enough unless tied to a specific objective. Matthew worked extremely hard, with little to show for his efforts except that of keeping the Society's name prominently in people's minds. One great success he had was a day at Darwin House for junior school pupils when costs were met from the Education Fund. The young people had a superb day and the Head Teacher from the school subsequently joined the Society.

Within the Society, by 1998 change had again occurred when Dr David Frean had succeeded Mr Colin Davenport as Programme Secretary when Colin moved to Scotland. Mr Don Busby had stood down after five years as Treasurer, replaced by Mr Clifford Ricketts, and Dr David Anderson, who had succeeded Professor Alasdair Steele-Bodger, was in his second year as President.

Financially, bank balances were very sound and, although provision was being made for possible increases in speakers' travel and other expenses, the majority of demands had been modest in practice. Numbers of visitors attending meetings were also at a high level, usually in excess of 15, and were providing useful additional income, helping to maintain the low annual subscription. Membership numbers were approximately 200, but with the visitors the influence of the Society was probably considerably greater. In the external financial market the interest rates on investments, particularly those accounts operated by treasurers of societies, were falling and Mr Cliff Ricketts' ever watchful eye caused our account to be moved from one clearing bank to another. Banking services were being rationalised and there was some difficulty in keeping pace with inflation.

The number of visits had increased dramatically. Where previously these had been limited to three per year, Mr Paul Bettson had, by the end of his period as a Committee Member in 2000, arranged in excess of 1,100 visit places. In many cases, when the host company had to limit the numbers on a visit, Paul had been able to arrange additional dates for Society members. In 2001 the role of Visits Organiser was taken over by Mr John Hodges who followed the established pattern by arranging visits to many different venues of scientific, engineering or general interest. In 2008 Mr Tim Sims succeeded John as Visits Secretary.

Paul was re-elected to the Committee in 2003. In 2005 he took over the duties of Membership Secretary and in 2008 the role of Deputy Chairman. Paul developed the electronic data base to facilitate the improvement of communications to members, using e-mail where practicable and cost effective. As befits a technically orientated organisation Paul has also been instrumental in developing the Society's web site. This can be accessed by all members and also by the public wishing to know more about the Society and its activities. Many links are provided for those who wish to research for more information.

By 2000 the preparations for meetings had become complex and created problems, particularly in the preparation of St. Mary's Centre for meetings and the reinstatement of the seating arrangements afterwards. The provision of refreshments had become onerous. The growth of numbers attending had caused the Committee to look at possible evacuation procedures in the event of an emergency and thus, whereas previously sitting around the tables had been satisfactory, a formal seating arrangement was more desirable and safer. This needed considerable



assistance from members which would have been easier if there had been some better allocation of effort. For a short period, in order to ease the problem, recourse was necessary to external assistance to prepare the meeting room seating.

By the 2003 – 2004 season the number of Society members plus visitors attending the Lecture meetings had clearly outgrown the capacity of St. Mary's Centre and a move was made to the Studio at the Lichfield Garrick, the new theatre which had just opened on the site of the old Civic Hall. With a hire cost of £100, this was quite a risk at the time! Even this venue, which regularly attracts an audience of 100 or more members and visitors, has proved on occasions to be inadequate to cater for the demand and a larger venue is clearly necessary. In particular, lectures on railways, canals and aircraft always ensure large attendances with "Tornado – A Locomotive for the 21st Century" attracting a record 202 members and visitors: the committee had foreseen this and moved the meeting to the theatre at the Friary School, Lichfield.

In 2000, Mr Richard Miller Yardley and Mr Richard Tetley, who, with the assistance of other members, had over the preceding years arranged and refined the arrangements for the 'Darwin Lectures', stood down after the tenth presentation. The Deputy Chairman of the Society, Mr Miller Yardley, relinquished the Chairmanship of the Darwin Sub-Committee, with responsibility for the Darwin Lectures passing to Mr Laurence Olphin, who served in this capacity until the organisation of them was transferred to the Meetings Sub-Committee in 2005. The subjects selected for the Darwin Lectures ranged widely over scientific, engineering and medical topics, generally chosen to be of interest to the general public as well as members. On many occasions the lectures, initially presented in the Civic Hall, then in Lichfield Cathedral for two years, and currently in the Lichfield Garrick, have attracted capacity audiences.

Details of the Erasmus Darwin Memorial Lectures held to date are shown in Appendix A. This list of lecturers is a major factor when approaching future speakers, who can then appreciate the distinction of those who have preceded them, and thus has enhanced very considerably the reputation of the Society, both nationally and at civic level.

At the AGM of 2001, Mr John Swinnock stood down as Chairman. This also brought to a close the refreshments partnership of Mrs Peggi Miller Yardley and Mrs Marjolène Swinnock who had organised this for nine

years. Membership now stood at approximately 220 with seasonal gains and losses. Substantial balances had been reported in the Society's bank accounts.

In summary, the years 1996 – 2001 had seen a steady growth on all fronts of activity and many initiatives probed and tested. Mr Brian Hammond as Programme Secretary had made a substantial contribution from 2000 and continued to do so.

In 2001 the position of Chairman passed to Dr Bryan Veitch who steered the Committee and Society along the established lines. Soon after taking up this position Bryan persuaded Mrs Jenny Arthur to join the Committee as Education Secretary following the resignation of Mr Matthew Bates. Unfortunately Bryan's term in office was marred by a progressive illness which resulted in the Deputy Chairman, Mr John Swinnock, chairing some of the Society's meetings. Regrettably Bryan's illness progressed rapidly to bring about his early death in 2003.

The resulting problem was solved by the Committee unanimously nominating the Education Secretary, Mrs Jenny Arthur, as the first female Chairman, which was confirmed at the Society's AGM in 2003. In the succeeding five years Jenny contributed substantially to the increasing success of the Society, not least through her many contacts in the academic world. She was able to propose and introduce several eminent speakers to deliver the annual Darwin Memorial Lectures and the Lichfield Festival Lectures. These were all acclaimed successes. During her tenure as Chairman the membership continued to grow steadily to around 270, although there was some concern that this included very few students.

After the amended constitutional term of five years Jenny stepped down as Chairman and was succeeded by Mr Brian Hammond. Jenny continued on the Committee as Education Secretary with special responsibility for encouraging schools in the Lichfield area to apply for grants from the Society's Education fund. She also spread the message to budding future scientists and engineers by encouraging them to join the Society as student members or at least to attend some of the meetings.

The Society continued to be well served by its Officers and Committee who produced a varied and stimulating programme of meetings and visits. From its formation there was a strongly held view that the term of any individual office holder should be limited. The principal objective was to

avoid stagnation – a problem which was known to beset some organisations.

In 2001 Mr Tim Sims succeeded Mr David Durston as General Secretary. His term of office was extended on an exceptional basis in order to stagger the changes in the main officer positions. Indeed one of the 2006 Constitution amendments was specifically to allow this. During these six years, Tim made a substantial contribution to the smooth and efficient running of the Society. He was followed in 2007 by Mr Alan Hooper.

In 2003 Mr Clifford Ricketts relinquished the role of Treasurer to Mr Alan Taylor. Circumstances brought about an emergency with Cliff stepping into the position for the year 2005 – 2006. Between 1998 and 2005 Cliff Ricketts did sterling service as the Society's Treasurer for what eventually turned out to be six years of meticulous work. Also with Cliff's wise counsel, which continued with his service on the Committee until 2009, the Society has been able to implement a string of improvements and adjustments required by the constantly changing demands of regulation and a fast growing society. Undoubtedly, much credit for the latter's success is due to Cliff. Mrs Carol Hannam was elected as Treasurer in 2006.

In 2005 it was recognised that although the role of Meetings Secretary had been excellently fulfilled, it was time to make another change and place this activity, together with the organisation of the Annual Darwin Memorial Lecture, in the hands of a Sub-Committee. Apart from relieving Mr Brian Hammond from an extremely demanding activity this change has widened the sources of information about possible speakers and subjects for lectures. Nevertheless, the principles of the equitable distribution of subjects, first established in 1992, continued to be followed, although the actual range has widened to reflect the ever-increasing importance of science and technology in today's world.

During the years 2002 – 2008 the Society continued to flourish, following the pattern which had been well established by 1996 plus the programme of visits of engineering, scientific or general interest. The finances now allowed the Society to purchase a multi-media projector to enhance the calibre and facilities for presentations by eminent visiting speakers, who were by then increasingly requesting this facility.

It was with regret that the Society learned of the death of its Patron, the Earl of Lichfield, in 2003. Subsequently, Mr James Hawley, H.M. Lord

Lieutenant of Staffordshire, accepted an invitation to become Patron of the Society.

A new innovation in 2007 has been the introduction of discussion lunches at Erasmus Darwin House; these are listed in Appendix F. They may be led by a member or someone from outside the Society and either introduce a new subject or continue the discussion of the subject of a recent lecture. The excellent meals were organised by Mrs Jenny Arthur and Mrs Carol Hannam, who carried out some of the preparation themselves and sub-contracted the cooking in order to keep within the tight budget, although they always managed to include wine and cheese and biscuits!

The Society has always had as an objective the furtherance of interest in Science, Engineering and Technology in schools. Sponsorship grants and voluntary donations by members to the Education Fund built up to a meaningful amount. This enabled the Society to offer financial support to science-based projects sponsored by schools in the area. In several instances the Society funded the purchase by the school of a suitable item of laboratory equipment which they could not procure within their normal budget. The Society has also provided equipment for National Science Weeks, latterly National Science and Engineering Weeks, at Erasmus Darwin House.

By 2009 the membership had broken 300 and it was occasionally necessary to restrict entrance to meetings, a painful experience for those manning the welcome desk. This necessitated a ticketing system so that visitors could be admitted only after members had received priority up to 10 minutes before 'curtain up', with Mr Mike Beeson checking tickets on the door. The same year saw a capacity audience of 480 for Dr Alice Roberts' Erasmus Darwin Memorial Lecture, 'The Incredible Human Journey'.

Having undertaken the task since 2000, initially as a part of the Meetings Secretary's job, Mr Brian Hammond was pleased to hand publicity to Mr Mike Beeson in November 2009. Mr Beeson had had his reports of lectures published in the local press from the beginning of the year (something which had not been attempted for some years) and now added posters and handbills to his workload.

Being the 25th Anniversary season, something special had to be arranged for 2009 – 2010 and the Committee had discussed many ideas in the

preceding year or so. In the end, it was decided to do two things for the members and one for the schools, in addition to printing the Programme Card on silver card instead of the usual alternating yellow and blue which Mr Brian Hammond had instituted some years earlier.

For the schools, on December 2nd 2009 a lecture organised by Mrs Jenny Arthur took place in the Friary School's theatre. Some 60 students from three local schools had their minds stretched by Dr Ankit Rao, a Research Fellow with Cancer UK at Birmingham University. The subject of 'Cancer and Chemotherapy' was arranged to fit in with the A-level syllabus and examination timing. The lecture was such a success that the Committee decided to repeat the exercise, possibly as an annual event.

The 2010 Informal Supper was replaced by a Hog Roast Lunch held at Mr Paul Bettson's Farm in Armitage. Paul took charge of the arrangements, ably assisted by Mrs Jenny Arthur and Mrs Carol Hannam in respect of the catering and by Mrs Marion Sadler for the entertainments. The latter consisted mainly of displays of their spare time activities and interests by members. Mr Brian Hammond also arranged for Mr James Howells to give a demonstration of various electrical phenomena and Mr Bettson opened his extensive museum.

The final item was to commission Grays of Shenstone to produce a Celebratory Bone China Mug for sale to members at meetings during the year. Most were sold and the remainder were presented to our speakers.

At the 2010 Erasmus Darwin Memorial Lecture Supper, it was noticed that the centre piece of the President's Jewel was missing. Some older members, including its designer and maker Mr Norman Nicoll, by then 92, were asked about their memories of it but no-one could recall the details. The archives were searched for the photographs which were said to have been taken but they could not be located and the Management Committee decided that it was most likely to have been the Society's logo. Mr Sheldon of Bird Street, a Manufacturing Jeweller, was commissioned to make a suitable silver button, working from a photograph of the Lectern Logo, and to provide an insurance valuation. The button was duly made and fixed for the very reasonable sum of £30 and the Jewel was photographed for the Society's records and as a part of the insurance process.

The second Annual Schools Lecture, 'Fibonacci and Flowers', given in February 2011 by Dr Ron Knott, who had previously given a

presentation on the same subject to the Society in March 2010, was attended by some 150 students from three local schools.

The 2011 AGM saw the retirement from the committee of Mr Brian Hammond, who wished his successor, Paul Bettson, the best of luck in his Chairmanship. At the same Annual General Meeting, Mrs Carol Hannam was elected to Deputy Chairman and Dr Robert Giles as Honorary Treasurer. Dr Sahar Al-Malaika, Leader of the Polymer Processing and Performance Research Group at Aston University, was elected as the first female President.

Thanks to many members' interest and assistance, the Society from its small but determined beginnings has strengthened and continues to flourish. Long may it continue to provide interest and be informative over a wide range of topics for both those interested in Science and Engineering and those whose careers were and are based upon it.

## **Appendices**

The Appendices originally printed in the booklet have been transferred to the History section of the website in order to allow them to be kept up to date.