CHAPTER SEVEN

THE CITY UNIVERSITY: THE FIRST DECADE

The University Inaugurated

The stimulating atmosphere of excitement of the College of Advanced Technology era, inevitably, was replaced by one of sober reassessment in the first decade of the existence of The City University. The last phase of the Northampton, whilst readily characterised as "waiting for Robbins", was in reality fully taken up with planning for new courses and increased student numbers, planning for additional staff, for development of research and planning for additional sites and buildings. It was also, in itself, a period of rapid growth and high endeavour, with academic staff increasing in number from 104 in 1957 to 261 in 1966. Student numbers (full-time including sandwich courses) rose in the same period from 524 undergraduate level and 3 post-graduates, to 1773 and 88 respectively, and to accommodate this higher level of activity a variety of leased buildings was acquired. The unadjusted expenditure on the Revenue Account was £272,127 in 1956-57 and £1,565,098 in 1965-66.

In the first annual report of the new University, Vice-Chancellor Tait looked back to the "palmy" days of the recent past, "when the College was directly under the aegis of the Ministry of Education, (and), the need for scientists and technologists was quickly reflected into national policy by the designation of the Colleges of Advanced Technology and their rapid development. It would be a great national setback, if at this time when technological advance is desperately needed, the impetus given to the Colleges of Advanced Technology were in any way diminished." He went on to note the country's growing financial problems and the probability that the effect of the decision to create no more new universities for ten years would be offset by the rapid development of 22 new polytechnics in direct competition for resources. He clearly saw that the reverse side of the university status coin was that, in the thinking of the U.G.C., The City University was just another university, whereas it had enjoyed a highly privileged position as a top engineering college for development under the Ministry of Education.

As to the air of excitement, noted above, James Tait, in surveying progress from Mullineux Walmsley's days to the award of the Charter, wrote of its culmination in 1966, "what a wonderful year this has been." Ceremonies to inaugurate the new University were splendid,
impressive occasions. The Corporation of the City of London gave an excellent reception in the Guildhall on the evening of the 12th October 1966 and the Lord Mayor entertained the Vice-Chancellors of other universities to dinner at the Mansion House. Sir William Alexander wrote of the Guildhall reception "the City in accepting this new responsibility celebrated the event with all the ceremony of which the City of London is capable. At the Guildhall last Wednesday a very large company, representing the world of education and the City of London, were entertained. I can rarely remember a more colourful occasion."

The Prime Warden of the Goldsmiths' Company presented a Mace and the Chief Commoner of the City Corporation a silver rose water bowl, offering at the same time a Chancellor's chair. The assembled guests were addressed by the Secretary of State for Education and Science, the Right Honourable Anthony Crosland, M.P. and a grand buffet supper and dancing followed.

On the following day there was the Service of Dedication in St. Paul's Cathedral and the Bishop of London delivered the sermon. Also, on the 13th October 1966, the Royal Festival Hall was the setting for the Installation of the first Chancellor, Sir Lionel Denny, the Lord Mayor of London for the time being, before an assembly of 2,600 people. This ceremony was preceded by luncheon in the same building. The practice of awarding each Lord Mayor an honorary degree before installation as Chancellor was here commenced and a further account of The City University ceremonial procedures appears as an appendix to this book. Sir Lionel Denny subsequently conferred the degree of Bachelor of Science upon ninety students who had qualified for the Diploma in Technology. He then conferred honorary doctorates, upon Alderman Sir James Miller, G.B.E., Lord Mayor of London, 1964-65, Beresford Ingram, M.A., member of the Governing Body of the College 1942-1966 and Vice-Chairman 1949-1966, John D. Hodge, B.Sc. (Eng.) Chief of the National Aeronautics and Space Administration, Flight Control Division, a former student of the Northampton, 1946-49, and Professor Sir Willis Jackson, F.R.S. of Imperial College. There was a very good coverage of these inauguration events on television and radio, and in the press.

The Name of the University

Explanation is needed as to how Northampton College of Advanced Technology, which was not located at Northampton, came to select as its new title, "The City University", whilst not being located within the boundaries of the City of London. The origin of the former title is fully explained by the fact of the donation of the original site by William Douglas

132
Maclean Compton, K.G., (1818-1897), the fourth Marquis of Northampton, and his son, William George Spencer Scott Compton, M.P., (Earl Compton), 1851-1913, who succeeded to the title on the death of his father. The latter name was in recognition of existing links with the City of London as close as those of any of the Colleges of London University and going back in time to the first foundation. There was, of course, never any question of the name “London”, unassociated with the word “City”, appearing in the title, for separate identity was, and is, important. The nascent City University did, however, see a very real and previously neglected role to play in developing even closer links with the City, and this object is still being pursued.

Understandably, the University of London was zealous in guarding its hard won and long established good name and was not at all happy at the remotest possibility that a rival institution should include “City of London” or “City” in its title. Confusion between the two, together with the possible loss of City funding by diversion to the small newcomer, having all the drive and initiative of youth, did not appeal to the establishment at Bloomsbury one little bit! The meetings between the two doughty Scots Principals protecting the interests of the institutions at Bloomsbury and Clerkenwell, respectively, will have been worth observing, to say the least!

Senate of the University of London at its meeting of 27th January, 1966, recommended: “That the Principal of Northampton College of Advanced Technology be informed that the University would feel obliged to raise formal objection to a proposal that the name of the College in the charter conferring on it university status should be “The City University, London”, or “The City of London University” on the following lines:-

The University of London, which was established in 1836, is known throughout the world. It cannot acquiesce in the assumption by any other institution in London of a title which could lead to any possible confusion or misunderstanding. In the opinion of the University any title in which the two words “University” and “London” are combined, such as “The City University, London” could not fail to cause confusion and misunderstanding especially abroad, and must be opposed.

With regard to the alternative title “The City University”, the University of London would point out that Northampton College of Advanced Technology is not situated in the City of London. On the other hand one School of the University of London (St. Bartholomew’s Hospital Medical School) is so situated and other Schools and Colleges have close links with the City and with institutions in the City. On these grounds the University would consider the alternative title suggested quite inappropriate.” That
the most suitable name was in fact chosen is now self-evident, not only because of the thriving City connections, but also because the other names considered by the Governing Body at that time do not stir the imagination as does "The City University". Among these proposed names were: The Northampton University, London; Connaught University, London; Greatham University, London; The University of St. John, London; St. John's University, Clerkenwell; Kelvin University, London; The University of Clerkenwell; The University of Islington and The New River Head University.

As early as June 1964 London University was aware of the thinking of the College and the City Corporation as to possible names embodying the word "City", for discussions had taken place. An extraordinary meeting of the Governing Body held on 2nd November 1964 provisionally agreed that "City University, London" be the name and the question of the Lord Mayor or an ex-Lord Mayor being appointed Chancellor should be explored. It was reported at the next meeting that Oliver Thompson had discussed the matter with the Lord Mayor who was already discussing it with past Lord Mayors and there seemed to be no doubt that he was most enthusiastic for an association of the City and the new University and for the name suggested. After discussion it was agreed that the preferred name was "The City University, London" and that the Lord Mayor in office be invited to be the Chancellor.

The University of London Senate Minutes of 19th May 1965 agreed:- "That the University Solicitor be instructed to arrange for a Counter Petition to be drawn up setting out the objections of the University to the proposal of the Northampton College of Advanced Technology that it should, on being granted university status, be called "The City University", and that, when prepared, the Counter Petition be sealed and forwarded to the Privy Council." London had, however, already accepted an invitation to appoint a representative to the Court of the new university.

The City was never in any doubt, for at the Court of Common Council meeting of 15th June 1965 Alderman H. Edward Howard put forward a motion that: "In connection with the new City University, the Corporation would welcome the establishment of a Faculty for Business Management and a Hostel for Students within the boundaries of the City of London, and that it be referred to the Special Committee and the Barbican Committee in consultation with the Governors of the Northampton College of Advanced Technology, to examine and to report thereon."

The objects of the University, as set out in the Charter, are: "to advance knowledge, wisdom and understanding by teaching, research and
Tom H. Holmes.

The first carrot rag.
Graduation ceremony in the Guildhall
Connaught Building

The Oliver Thompson Lecture Theatre
The first Skinners' Library

The Skinners' Library 1970
professional training, particularly in science and technology, both within the University and in close association with industry and commerce, and by the example and influence of its corporate life to benefit society. The organs of governance and administration by which the University exists are very much standard instruments, comprising Senate, the supreme academic body, Council, the governing body controlling the finance and the legal side of the University as a body corporate, the Court, comprising representatives of wide ranging interests meeting annually, and Convocation, the corporate body of the graduates. The first meeting of Convocation was held on 22nd February 1967 when Dr. F.E.A. Manning was elected Chairman. He was President of the Student Union 1922-23 and 1923-24. Subsequent Chairmen of Convocation have been H.S. Hind, R.T. Beazley and I.D. Gardiner. The first meeting of the University Court was held on Monday 10th April 1967 followed by dinner. By mid-1969 fifty-four Livery Companies were represented on Court. Council and Senate, of course, were constituted for the beginning of the session 1966-67 first meeting in September 1966.

In addition to the obvious Committees of Senate, the academic structure beneath Senate comprised Boards of Studies and Boards of Examiners, Departmental Boards including only Professors, Readers and Senior Lecturers with elected representatives of the rest of the academic staff of the Department. There were Staff-Student Committees with students from each year of each course meeting with the Departmental Board and Meetings of all academic staff in each department.

Finance

The City University was inaugurated in a time of financial crisis. It was also a period of increasing governmental control of expenditure. Thus, in July 1967, the Secretary of State for Education and Science, Anthony Crosland, reported in the House that the Government had accepted the recommendation of the Public Accounts Committee that the Comptroller and Auditor General should be given access to the books and records of the University Grants Committee and the Universities. In announcing the level of recurrent grant for the rest of the quinquennium 1967-72, and awarding much less than was asked for, the U.G.C. stated that undergraduate places should be provided before additional post-graduate provision and that greater emphasis was needed on applied research and post-experience courses, that the funds provided allowed for a 20% increase in library expenditure per student by 1971-72 and that there were to be no major developments in social science and no developments in audio-visual aids.
Senate agreed at this time not to fill existing academic staff vacancies, for any growth would need to come from internal economies. The University had a student-staff ratio of eight to one whereas the University Grants Committee funding was generally accepted to be based on ten to one, thus thirty-four academic staff should have been surplus to teaching responsibilities and should have been able to pursue research activities. During 1968 delayed starts in university building were ordered to slow down the rate of expenditure as part of the Labour Government’s education cuts. The University was, however, successful in gaining some additional funds to support management courses. Universities were being squeezed and, additionally, City University had the misfortune of being required to pay back £100,000 to the U.G.C. This arose because the Auditor General’s Department ruled that the U.G.C. funding of previous years had included sums to this total in respect of rent due to the L.C.C. for Northampton Hall and not called for at the time.

Although there were supplementary grants from the U.G.C. during this period, they were, of course, always in arrears and insufficient. They were in fact cuts in real terms in scheduled recurrent and equipment grants and Sir James saw the outlook as bleak in his last annual report, that for 1973-74.

Student Numbers

As early as 1968, Sir Frederick Dainton had drawn attention to the swing away from science and engineering in the applications for university places. With its very limited diversification, The City University was particularly vulnerable. In his annual report for the academic year 1972-73, Sir James Tait wrote: “whether we reach the student target of 3128 in 1976-77 depends upon a variety of circumstances, some of which are outside our control, but, as I reported last year, we fell short of our previous target (of 2365), mainly because of the economic-industrial situation which influenced the intake to sandwich courses, but also because of some disenchantment with technology, stimulated by the news media, and its effect on pupils at school.” The shortfall in planned student numbers led to some restructuring of courses, more options, three year courses and more staff opportunity to conduct research. There was a growth in masters’ courses in the form of modular structure that enables qualification either by full-time or part-time attendance in cooperation with industrial sponsors.

The University also copied the City Churches in arranging lunchtime, “bring your own sandwiches”, lectures, in Gresham College. Academic staff willingly gave their time to this extension work. More sabbatical leave
became possible, almost certainly with beneficial results to teaching and research. Schools Open Days became a feature with some 3000 pupils and teachers coming from some 200 schools for two day sessions in March and April 1973, for example. Most importantly, the slow process of diversification of the disciplines taught was put in hand, however tentatively.

Sandwich Courses

The new University, certainly, remained firmly committed to offering integrated sandwich degree courses in engineering and applied science and in this it had the full support of the Academic Advisory Committee. Additionally “traditional full-time courses”, so named in order to distinguish them from sandwich courses, have always appeared in the prospectus. This avenue has become more of a necessity with the decline in industry’s willingness or ability to cooperate in the provision of places for sandwich students. The Industrial Training Act of 1964 probably embodies the fatal flaw, in that whilst the government decided on payment for training at the craft level it was not far sighted enough to see the wisdom of organising the industrial training periods for higher education sandwich courses! This is an example of Government discerning, in the White Paper of 1956, the need of industry for creative engineers at professional level but neglecting to strengthen the industrial link in the 1964 Act.

It was not only amalgamations and other indications of industrial recession that had their effect on the number of engineering places taken up in this decade. Students could more readily compare courses and decide upon three year as against four-and-a-half year routes to economic independence. Again, as firms no longer paid the student during the six month periods at University, the local authority paid, instead, a grant that took account of the parents’ income — which made a sandwich course a less attractive proposition to the student!

Thus quality and content of degree courses are not always the key factors in the market place, certainly not in the short term. The length of the course is likely to be crucial to intending applicants even to the extent of discounting the added benefit inherent in the longer sandwich course, that is progression to the professional status of Chartered Engineer. The pressures we have noted led to reducing four-and-a-half year sandwich courses to four years and to more three year “traditional” courses, albeit with some industrial content. Senate, in 1969-70, agreed to changes to a whole series of sandwich courses to convert them to three term, thirty week per annum courses in spite of the fact that academic staffing levels
and laboratory provision had been set at the levels required by the two semester forty-four week pattern and there was thus under use of resources. "The Academic Advisory Committee agreed to these changes as they did to the "traditional" courses in social science and applied science being reduced to thirty weeks. The Department of Education and Science, and later the University Grants Committee agreed that a sandwich student on a 22 week session be regarded as equivalent to a "full-time" 30 week student in terms of staffing. Indeed, increased technician staffing was allowed because of the nature of the courses. It must be remembered, too, that the 1956 White Paper had strongly advocated sandwich courses.

By 1971-72, except in Civil Engineering, Mathematics and Air Transport Engineering, there was a substantial fall in the annual intake to sandwich courses to little more than half that at the beginning of the quinquennium and the scheme to use the expensive equipment of the University for forty-four weeks each year by two intakes of students had fallen far short of planned numbers. The undergraduate numbers were not maintained even by developing new courses. The intake totalled

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967-8</td>
<td>706</td>
</tr>
<tr>
<td>1968-9</td>
<td>590</td>
</tr>
<tr>
<td>1969-70</td>
<td>596</td>
</tr>
<tr>
<td>1970-1</td>
<td>610</td>
</tr>
<tr>
<td>1971-2</td>
<td>638</td>
</tr>
<tr>
<td>1972-3</td>
<td>571</td>
</tr>
<tr>
<td>1973-4</td>
<td>574</td>
</tr>
</tbody>
</table>

The influence of available places in 22 new polytechnics is here apparent. But although economic recession had dealt a serious blow to the sandwich course system, particularly in Electrical and Electronic Engineering, taking all the circumstances into account, the University remained true to the concept that had evolved from the first years of the century within its walls.

The Development Plan

A Development Committee was established at The City University in January 1967 "to prepare a scheme for development over the next ten years and in the long-term and to report to Senate, the Academic Advisory Committee and Council before the end of July 1967". The draft report depicted an university dedicated to engineering and science with expanded business and management studies, and a centre in the City of London preferably within a short distance of the Guildhall and the Mansion House. There was to be a centre for engineering design, and computing and
materials science were to be developed further. Liberal studies featured in
the plan. The limited subject range stems directly from the days of first
foundation as part of the City Polytechnic in association with two existing
institutions rather than as a separate polytechnic. “Birkbeck Institute was
mainly concerned with instruction in Arts & Science and the City of London
College with training for Commerce, the sphere of educational activity
allocated to the Northampton was that of technology. The delimitation of
its curriculum thus decided upon has characterised the work of the
Polytechnic throughout its history.” 7 The Robbins Report, the Academic
Advisory Committee Report and subsequent U.G.C. guidance all reinforced
the conscious decision to eschew a wide spectrum of studies seen in the
above statement of 1932.

For the 1972-77 quinquennium the University proposed 4119 students,
3137 undergraduate, 558 postgraduate courses and 424 research. As 1297
of the undergraduates were to be on sandwich courses and 362 of the
postgraduates were to be part-time, the peak accommodation load was to
be 3530 students.

University development nationally at this time was thought to mean
the provision of 450,000 places by 1981, that is doubling the number of
places coupled with a reduction in unit costs. The Robbins Report aim was
560,000 students in full-time classes in higher education by 1980-81,
350,000 of them in universities. 8 Robbins’ figures for 1973-74 planned for
219,000 in universities. 9 In fact, the U.G.C. announced funding of £295.5
millions for 1972-3 rising at a rate in excess of 5% per annum to £367
millions in 1976-77 was estimated to cover the provision for 321,500
students (53% science, 47% arts), including 9.2% foreign students rising to
12.1%. Of this, City University was to provide for 2552 undergraduates (451
arts and 2101 science) and 576 postgraduates, a total of 3128 students.

By the time the University’s long term development plan was approved
by Council in March, 1974, economic factors dictated a longer time scale.
Stage I, comprising the Ophthalmic Optics building, a replacement Health
Centre and a further Hall of Residence, all for the Goswell Road site, was
then planned for 1977-82. Student number predictions in addition to the
economic factors dictated that Stage II, the development of new sites in
Sebastian Street to enable the University to take 2700 science and
engineering and 1300 social science, business, management, law, etc.
students was re-timed for 1982 onwards. Sir James Tait’s fears, of 1966,
that the new polytechnics would swallow up higher education resources
and students, was not unfounded, for polytechnics were said to have
grown 18% per annum during 1974 to 1976 whilst university growth was
only 2.5% per annum for most of the 1970’s. This growth was set against
a background of lower real demand for places in higher education and some
reduction in the proportion of the appropriate age groups having two “A”
levels. Foreign students increasingly took up the vacant places.

The Development Fund

The object of The City University Development Fund was to provide
for the inevitable shortfall between government grants and the estimated
twelve million pounds that the University’s Development Plan would cost to
implement. The shortfall was estimated to be three-and-a-half million
pounds. Council set up a Development Fund Appeal and the Rt. Hon. Lord
Poole, P.C., C.B.E., T.D., agreed to be Chairman and the Rt. Hon. Lord
Ebbisham, T.D., Vice-Chairman. The appeal was launched at a Mansion
House lunch on the 26th November, 1968, attended by some 250 of the
nation’s top business men and leaders in various walks of life. The money
was required for land and academic buildings, scientific equipment, library
provision, a centre for graduate business studies, student residence, etc.
J.F. Field was appointed Director of the Fund and an illustrated brochure
“To serve mankind” was issued. By January 1969 the appeal had got off to
a good start and by October 1971 over one-and-a-half million pounds was
promised, of which some £800,000 had been paid over. The time, however,
was not particularly auspicious for fund gathering and it was May 1974,
before the fund advanced to £1,600,000. The money was used to finance
the Oliver Thompson Lecture Theatre and the Health Centre, inter alia and
the fund served to focus the attention of the City of London on its
University with greatly beneficial effect at that time and subsequently.

Academic Development

The Academic Advisory Committee approved all new courses until it
was formally dissolved on the 30th September, 1972. A brief survey will
indicate the developments in each department in the decade, 1966-76.

Aeronautics

The Airline Engineering Course noted in the last chapter evolved into a
four year integrated sandwich course, the successful Air Transport
Engineering course. Aeronautical Engineering, the other course of the
department became available either on a three year basis or as a four year
integrated sandwich course. The former course was said to be unique in
British universities, involving close collaboration with the air lines. The
aerospace industry has obviously contracted with amalgamations and
economic recession, but there are increasing prospects for employment outside the aero industry. Research into hypersonic aerodynamics and human body aerodynamics developed under Professor R.N. Cox, who was appointed in January 1967. Helicopter rotors under Dr. A.R.S. Bramwell and land vehicle aerodynamics under A. Scibor-Rylski were the other major research interests fostered. The first International Road Vehicle Aerodynamics Symposium was held at The City University in 1969. The department developed transonic, supersonic and hypersonic wind tunnels for its teaching and research into aerodynamics, aircraft structures and air transport engineering. Professor Tokaty retired in 1975 and Dr. A.R.S. Bramwell became Acting Head; being appointed Professor of Aeronautics and Head of Department in 1977.

Civil Engineering

The appointment on August 1st 1966 of P.O. Wolf, Reader in Hydrology at Imperial College, as Professor and Head of the Department of Civil Engineering marked its administrative separation from Mechanical Engineering, but, of course, there continues to be cooperation between them. The appointment, on the same day of J.E. Gibson, Reader in Engineering, Manchester University, as Professor of Civil Engineering Structures, meant fostering two major research areas in the department. In due course there were M.Sc. Courses in Civil Engineering (Structures), Municipal Engineering (Highways) and Water Engineering. The Department was organised in three sections:- Structures, Hydraulics and Hydrology, and Geotechnical. The M.Sc. courses were either full-time one year or one day a week over three years. The Sandwich B.Sc. Courses have flourished and are either three years full-time with one semester professional experience or of four-and-a-half years duration with five academic semesters alternating with four professional semesters.

A Photogrammetric Unit was set up in session 1972-73 with equipment from Zeiss, East Germany. This followed an International Conference on the Role of Photogrammetry in Modern Highway Engineering held earlier at The City University. Subsequently the work has been extended to the assessment of snowfields and to changes of position of buildings on yielding foundations. Ongoing research in the department includes that on tall structures, on box girder plates and shells and the dynamics of structures as well as fluid flow measurement.

It has been the practice to hold an annual conference with the sponsors of students and this has assisted in maintaining the number of
places. The Worshipful Company of Paviors has provided funds to stimulate road engineering, one of many examples of practical support from the Livery Companies. Messrs. Kenchington, Little & Partners funded a travelling bursary for undergraduates or recent graduates of the Department. The move to the Tait Building in 1974-75, housing the department in accommodation hard to rival, provided an ideal setting for engineering teaching and research.

**Mechanical Engineering**

The new departmental structure, effective from the first year of the establishment of the new University, allowed separate development for two major areas of teaching and research, civil and mechanical engineering. In 1970 the Metallurgy Section was transferred from the Chemistry Department and Production Engineering from the Automation Department and the Mechanical Engineering Department was then reorganised into six sections. These were:- Engineering Mechanics, Manufacturing Engineering, Mechanics of Fluids, Metallurgy, Strength of Materials, and, Thermodynamics. This strengthening of the department enabled provision of a wider range of options in the final year. This added further flexibility to a structure that had a joint engineering course for the first semester, the second to fifth semesters devoted to a fundamental approach to mechanical engineering without undue specialisation and the final specialist year including a project for each student. There was, however, a shortfall in planned student numbers during these years.

The masters’ courses and research possibilities greatly extended during this time which included the move to the fine spacious Tait Building in 1974-75. M.L. Meyer was appointed to the Chair in Applied Mechanics in 1967 and his field was stress analysis, and Dr. R.A.C. Slater was responsible for manufacturing engineering M.Sc. courses both part-time and full-time. There was also continuing research into the transport by pipeline of solids in liquids or gases under the direction of Dr. R.A. Duckworth who became a Reader in 1968 and Professor of Fluids Transport Engineering in 1974 and into fatigue and creep, the field of Professor J.C. Levy, the Head of Department.

A modular basis was introduced for M.Sc. courses in Thermodynamics, Fluid Mechanics and Mechanics of Materials. The Worshipful Company of Pewterers endowed a research fellowship and the Worshipful Company of Carmen endowed a research assistantship. In this period post-experience courses were developed in specialisms such as pressure transients and metal fatigue.
Systems Science

The Department of Systems Science has been known by a variety of names over the years reflecting evolution of thought and effort to match both the needs of the country and the market for the courses. Professor M'Pherson and his colleagues were applying “systems” thinking to the aims, objects and operation of the department. Thus the Department of Production Technology and Control Engineering changed its name to Department of Automation Engineering, effective January, 1968. At the same time common first three semesters in the undergraduate courses released staff effort for a much expanded master's course in automation engineering with, again, a common core of subjects, but with advanced options in control systems design, instrument design or automation engineering.

The aim was “to provide an up-to-date educational system for those who will be entering the, by now, well established fields of systems engineering, control engineering and automation engineering. The planning was a Massachusetts Institute of Technology inspired ethos for a technological university, (without the excitement of the U.S. space programme) seeing technology as the application of science to engineering by means of instrumentation systems. In the wider context, to adapt M'Pherson’s words, systems engineering was seen as “the process of applying resources — corporate or government or other — to the design of a system, or assemblage of devices, to perform specified functions under particular conditions of inputs, operating environment and interrelationships with other systems.”

Thus “A distinct branch of engineering, largely interdisciplinary in character” was to be the concern of the department which by 1969 was founded firmly on systems science. P.K. M'Pherson had been appointed in 1967 as Professor of Instrument and Control Engineering; L. Finkelestein being awarded a Readership in 1967 and a Chair in 1970. G.M.E. Williams, Head of Department, had resigned in 1967 to return to industry and Professor M'Pherson had first been appointed Acting Head and then Head of Department in 1969. That year the first degree courses in Production Engineering and Instrument and Control Engineering were phased out and Automation Engineering began. The success of these innovations was apparent for the new B.Sc. course had an intake of twenty students in the following year and the M.Sc. course had twenty-four students and was already highly rated by the Science Research Council for the award of studentships.
In 1970 the department became known as the Department of Systems and Automation and in 1973, the Department of Systems Science. "The radiation of the department out into a diversity of fields is now broad enough for it to be able to justify its stance as an interdisciplinary group based on systems science." The span of research and teaching covered: control engineering, measurement science, technical cybernetics, systems engineering, biocybernetics, political science and conflict dynamics. The main feature of session 1972-73 in the Systems Science Department, however, was the commencement of the long-planned interdisciplinary B.Sc. in Systems and Management course. The number of applications exceeded all expectations and forty were enrolled. Among them were twenty young Royal Navy officers, the first of a flow of good, committed students from the non-technical officer recruits of the navy and marines. Two departments of the Royal Naval College, Greenwich, are involved and there is valuable cooperation in teaching. The degree is designed to develop the logical and lateral thinking necessary for comprehension of the complex multiparameter problems that now characterise social and governmental decision making. Numerate and literate skills, fundamentals of industrial and technological management, economics, international relations and the foundations and applications of science are all within its range.

With the authority of Senate and Council, the two professors of the department engaged in a sort of academic musical chairs in this period, in rotating the Headship. This enabled beneficial sabbatical periods and provided a pattern for change for other departments. Two other features of the department that require mention are the Scientific Instrument Research Association/City University Centre for Instrument System Design and The Society for General Systems Research. The former is a long term research programme centre in the University to assist in the development of instrumentation systems in industry. The Society for General Systems Research (U.K. Region) met regularly at The City University from 1973 until 1976. The Chairman and Honorary Secretary of this period were Professor P.K. M'Pherson and Mr. F.R. Janes, respectively. In general systems science there is an heuristic element that accords well with engineering and philosophical and social dimensions that leaven it, altogether in accord with the history, aims and objects of the University.

Chemistry

The first B.Sc. degree course in Chemistry developed out of a successful Diploma in Technology course in Industrial Chemistry. It was a
sandwich degree course on the semester pattern with a total of over two hundred undergraduates at first. When the total declined in subsequent years, the course was restructured to a three term year and a common syllabus was instituted for the earlier parts of the Industrial Chemistry and Chemistry degree courses to provide flexibility. There were, however, decreasing opportunities in industry as well as declining interest in the schools. Sixth form induction courses and other considerable staff efforts did not materially change the trend.

Professor D.J. Alner was Head of Department from 1961 until 1973 when Professor C.F. Cullis, who had been Professor of Physical Chemistry since 1967, took over. Professor Cullis was previously Reader in Combustion Chemistry at Imperial College and visiting Professor at the University of California, Berkeley. Alner had become Pro-Vice-Chancellor in 1969 and, additionally, Vice-Principal in 1972. Under Professor Alner the Adhesives and Adhesion International Annual Conferences commenced, reaching the 14th by 1976. The Department has developed its organic chemistry and appointed Dr. P.G. Sammes to a Chair and has moved into biochemical research with the appointment of Dr. J.B. Hobbs. At the same time existing areas of excellence continue to be developed with research in Professor Cullis's field of combustion chemistry and oxidation reactions, in electro-chemical technology by Dr. A.C.C. Tseung and in adhesion chemistry by visiting Professor W.C. Wake and K.W. Allen.

At the end of 1971, A.D.S. Tantrum was appointed Director of the Electrochemical Technology Research Unit. The unit soon gained assistance from the Wolfson Foundation and the aim was to make certain of the resources of the Chemistry Department available to industry on a contractual basis.

In October 1975 an integrated honours degree course B.Sc. in Chemistry and Administrative Sciences was commenced. The M.Sc. courses in Electrochemical Technology and in Adhesion Science continued to be successful.

Physics

Dr. A.F. Brown, Reader in Natural Philosophy in the University of Edinburgh, was appointed Professor of Physics in 1967 and developed an ultrasonic spectroscopy research group in non-destructive testing. F.Y. Poynton, who had been Head of Department since 1937 and Professor since 1965, retired in 1968. Dr. C.W. Miller who had been directing physics research in Associated Electrical Industries was then appointed Professor and Head of Department. Student recruitment was low throughout the
period, reflecting the national trend. New B.Sc. options were planned and to the B.Sc. in Applied Physics was added Physics with Electronics starting in October 1972.

Sixth form courses became annual events in an attempt to encourage likely entrants. There was, of course, some increase in service teaching and staff also increasingly contributed to the work of other departments. In addition to the research noted above, Dr. E.G. Steward directed research on crystal structures and biologically interesting materials. The first annual Edwards Memorial Lecture was given in November 1970 by Professor R.V. Jones of Aberdeen University. It is financed by the Edwards Memorial Trust and reference has been made in an earlier chapter to Edwards’ connection with the University. In July 1971 the first Poynton prize was awarded.

Mathematics

Professor Alfred Geary, retiring at the end of December 1966, left his successor a very large Mathematics Department engaged not only in service teaching to the other departments, but also in conducting an Applied Mathematics B.Sc. course that had evolved from the four year Diploma in Technology sandwich course in Mathematics with Statistics and Computing. A part-time M.Sc. course in Computer Science had already started and the department had some standing in computing. The service teaching element totalled more than one third of the work of the Mathematics Department.

Geary’s successor, Professor M.A. Jaswon, of Imperial College, took over in September 1967 and to the part-time M.Sc. Computer Science course was added a part-time M.Sc. Mathematics course. Initially the intake to the common first year B.Sc. Applied Mathematics course was high, with 100 in 1969-70, but by 1975-76 it had declined to 30. As in other departments an ordinary degree was instituted for those unsuitable for honours courses.

An M.Sc. in Statistics, commenced 1968-69 and Professor A. Birnbaum was appointed in October 1974 to direct statistics and operational research technique studies. Courses run jointly with other departments were B.Sc. Computer Engineering (with the Electrical Department) and B.Sc. Actuarial Science (at first with Social Science). Generous financial assistance from the Life Offices Association, the Association of Consulting Actuaries and an anonymous donor enabled the Institute of Actuaries to establish the Chair in Actuarial Science. The first holder of the Chair, from 1973, was Professor Bernard Benjamin who was succeeded by Professor J.B.H. Pegler in October, 1975. The B.Sc. Honours degree, passed at a
suitable level, gains exemption from the examinations of the Institute of Actuaries other than the Fellowship. The course started in 1974.

Dr. V.E. Price had been appointed Reader in Mathematics in 1962, and Professor of Computer Science in April 1967, and a B.Sc. Computer Science course began in October, 1967. There were 300 applicants and an entry of 38. A separate Computer Science Department was formed, under Professor Price, in September 1978.

Computer Unit

L.T.G. Clarke formally became Manager of the Computer Unit in July 1967 but it was not until the academic session 1975-76 that separation from the Mathematics Department was agreed upon. By then Clarke had, unfortunately, died suddenly in 1974, and a memorial prize was funded by the Masonic Lodge.

The Pegasus was still in use in June 1965 when an ICT 1905 was installed and in April 1968 Lord Penney inaugurated an EAL 690 hybrid system. July-August 1973 saw the setting up of an ICL 1905E in a new Computer Unit centre on the first and second floors of the Electrical Engineering Block, later known as the Drysdale Building. There were various enhancements over time and a growth of usage of large external computers such as the London Regional Centre CDC 7600. After the period with which we are concerned, a Honeywell 66/60 was supplied by the Computer Board. J.A. Page was appointed Director of the Computer Unit from 1st June 1976. There are multi-access terminals throughout the University and much other Departmental computer capacity to support research.

Electrical and Electronic Engineering

By 1965-66 the Electrical Engineering Department under Professor P.F. Soper had a higher student enrolment than any other department and was achieving more Dip.Techs. and London B.Sc.s than any other department. A new building (now the Drysdale Building) was ready for the department early in 1969, by which time the student intake into electrical engineering had dropped significantly. During 1970-71 the Auditor General criticised these large new electrical laboratories as being grossly in excess of need. The economic recession was the real culprit, with reorganising and amalgamations in the electrical industry leading to cut-backs in training programmes, including industrially based sandwich courses. Drysdale Building had been planned for over 1,000 students, that is a 140 sandwich student intake twice a year on 4½ year courses plus postgraduates. The
actual total in 1971 was 261 ! The criticism was met by moving the Computer Unit and much of the Social Science Department into the Electrical Building. The High Voltage Laboratory was completed over a year later and is highly functional, but arguably one of the ugliest buildings in London.

Professor Soper retired in 1972 and Dr. A.J. Ellison of Queen Mary College and a past student of the Northampton was appointed Professor of Electrical and Electronic Engineering and Head of Department. One integrated sandwich course, that in Electrical and Electronic Engineering continued to be available, but over four years instead of four-and-a-half. Three year full-time courses were available in both Electrical and Electronic Engineering. Joint courses with other departments were started in this period, such as Environmental Engineering (Buildings), with the Civil and Mechanical departments, Computer Engineering jointly with the Mathematics department and Electronic Music with the Centre for Arts.

Dr. H. House had been appointed Professor of High Voltage Engineering in 1969 and the research fields of the department included high voltage work, electrical power systems, electrical machines and vehicles. Other research areas were opto-electronics, computer-aided measurement, dielectrics, circuits and microwave engineering. Biomedical engineering and bioelectronics began to be developed as research interests. An interesting later development, was the allocation in 1979 of two laboratories as interdepartmental microprocessor research and teaching laboratories under Dr. Brignell.

Optometry and Visual Science

R.J. Fletcher, who had been a member of the department since 1950, and Acting Head since 1964, was appointed Head of Department and given a Chair in 1966. A year later the research potential of the department was strengthened with G.L. Ruskell becoming Reader in Ocular Anatomy and C.A. Padgham transferring from the Physics Department to become Reader in Physiological Optics. There was a visitation to the department by the General Optical Council in 1968. Cranwood Annexe was then the location and the report of the visitors stated, inter alia, "in spite of the drab accommodation and the bad acoustics, the department attains an academic level that is unsurpassed by any other in the country." Senate had approved courses in Physiological Optics at both B.Sc. and M.Sc. levels to commence October 1969 and the G.O.C. visitors considered this "an interesting development."
In common with other departments greater flexibility for student choice was being instituted and a common first year was to be followed by a choice of either ophthalmic or physiological optics specialisation. The ophthalmic optics route was three years full-time, six semesters, and was normally followed by a pre-registration year in practice to obtain registration by the G.O.C. The content of the ophthalmic optics course has developed along clinical lines with increased periods in London hospitals. The physiological optics course has developed with increased emphasis on industrial applications of vision.

The name of the department was changed in line with modern usage and so as more clearly to indicate its range of studies, in January 1977. Towards the end of this period, in 1974, G.M. Dunn, was appointed to the second Chair in the department, in Clinical Ophthalmic Optics. By 1976 the move to the Dame Alice Owen Building was planned and approved with a grant in aid from the U.G.C., to give the department 30,000 square feet of space, almost double the Cranwood Annexe provision. The long awaited and much needed purpose built accommodation on the Goswell Road site was, however, no closer to realisation.

Meanwhile, research developed in ocular physiology and anatomy, visual perception, colour vision and contact lenses, and there was no shortage of good undergraduate students in any year. The seventieth anniversary of the first Optometry Course was marked by various celebratory events and a successful appeal.

Information Science

The Centre for Information Science had its origin in an evening course in collecting and communicating scientific information. This course commenced in 1961 in A.C. Leyton's department. In 1963 he succeeded in gaining a D.S.I.R. grant of £12,150 over four years to fund a research into the development of new methods of information retrieval and to test their efficiency. Jason Farradane, B.Sc. was appointed Senior Research Fellow in Information Science in the Department of Management and Social Science for four years in the first instance. He was the first Senior Research Fellow to be appointed to the College. In 1966 an O.S.T.I. grant was awarded to Farradane over three years for "a psychological investigation of logical jumps made in the expression of information." The Institute of Information Scientists had been formed in 1958 and Tait later served for one year as President.
A full-time Diploma course was available from 1963, and in the University era, as part of the Graduate Business Centre, Farradane and his staff commenced the M.Sc. course in Information Science in 1967. A day release Diploma Course continued to run. There was no shortage of students and around thirty was the normal annual intake to the M.Sc. course. To information handling in science and technology two extra options were added in 1974-75. These were, Biomedical and pharmaceutical information, and, Financial, commercial and legal information. Recognition by the Library Association in 1974 afforded exemption from the Association's Registration examination.

Becoming a separate Centre for Information Science in May 1970 with Farradane as Director three years before his retirement, this postgraduate centre then continued to flourish under Dr. R.T. Bottle as Director. Research in indexing and bibliometrics grew and Dr. Bottle was given a personal Chair in April 1979.

Social Science and Humanities

Sir Robert Birley, K.C.M.G., M.A., Doc.Ing., LL.D., D.Phil., sometime Headmaster of Eton, was appointed Professor and Head of the Department of Social Science and Humanities on 1st September 1967. A.C. Leyton had retired through illness in 1966, at which time the pre-University Department of Management and Social Science of which he was Head was about to be split into two parts. R.G. Stansfield had been Reader in Charge since late 1965 and so continued during the interregnum. In the time before Sir Robert’s appointment new degree courses were planned and commenced, Economics with Technology and Social Science both in 1966 and Philosophy with Physics in 1967.

The foundation of the new degree in Social Science is fully documented, from the first draft scheme of January 1964, in papers presented to the University Library by Mrs. J.E. Clegg. As a sandwich course integrating practical experience at the workplace with academic study in the University, it provided a sound basis for a special honours degree for nurses of St. Bartholomew’s Hospital and the first four of a long series of good students graduated in 1972. Sir Robert retired in 1970, staying on as a Visiting Professor until the arrival of Dr. C.D.B. Harbury, as Professor of Economics and Head of Department, in 1971.

There was no shortage of students, but, nevertheless, the courses were developed into the unit degree pattern in 1973, either full-time or sandwich with a broad first year in economics, philosophy, psychology and
social science, with choice in later years to make up single, joint, or combined honours. Many hundreds applied and one hundred were taken for the first course in October 1973.

The Department of Social Science and Humanities is more like a faculty of four departments with a Head of each:- Professor C.D.B. Harbury, Economics; Dr. P. Harriot, Reader in Psychology from September 1972 and Professor from October 1975; Dr. H.P. Rickman Reader in Philosophy since 1967 and Professor C.J. Tunstall in Sociology since 1974. Research in the Department has developed and is well funded, such as, for example, £100,000 from the Department of the Environment for research into education and training for housing work, Professor Harbury’s research on Inheritance and the distribution of personal wealth in Britain, research into the psychology of memory, etc. The Department also played a substantial role in developing Actuarial Science with the Mathematics Department and in starting Banking and International Finance. Removal of responsibility for General Studies assisted greatly in the developments outlined.

Following the pioneer lead of the Systems Science Department, Professor Harbury withdrew from the Headship in order to pursue his research and writing and K.R. Kirton took over as Acting Head of Department from September 1976 and as Head for two years from October 1979; rotation has been agreed.

The City University Business School

The Robbins Committee Report noted that Britain lacked institutions equivalent to the great business schools in the U.S.A. and that the National Economic Development Council was urging provision of such. “We think it important that these schools should be situated in the neighbourhood of large business centres.” On June 17th, 1965, the Court of Common Council passed a resolution, “that in connection with the new City University the Corporation would welcome the establishment of a Faculty for Business Management and a Hostel for students within the boundaries of the City of London.” With this strong encouragement, the work in management of the C.A.T. period Department of Management and Social Science was developed first into a separate department and then into a school.

K.J. Shone was appointed in November 1966, Professor and Head of the Department of Management Studies. In that year there were ten students on the M.Sc. in Administrative Science Course and 54 the
following year. The first physical presence of the University at work within the boundaries of the City was at the beginning of session 1966-67 when a 12½ year lease was taken on the Hall and two floors of the Gresham College building close to the Guildhall. Another building, just outside the City in Goewell Road, was leased in 1969-70 and named Lionel Denny House, after the first Chancellor, on its opening on 17th May 1971. By that date business and management teaching had developed into a school with 84 students reading for M.Sc. Administrative Sciences degrees, 150 students on Financial Times-City University courses and a Dean directing the Graduate Business Centre.

D.A. Glen, O.B.E., M.A., had been appointed Dean in June 1969 following a full development study and the U.G.C. provided an earmarked grant to support such development. Self-financing post-experience courses, first started in 1967-68, were fostered. Systems analysis was taught to Civil Service staff at this time. An Esmee Fairbairn Fellowship was founded to enable work on investment and taxation under Visiting Professor Sir Robert Shone. Another distinguished Visiting Professor, C.M. Schmitthoff, was appointed in 1972 to guide studies in international law. In 1970, L.S. Pressnell was appointed to an Esmee Fairbairn Chair in Finance & Investment and P.H. Grinyer, in 1974, to the Chair of Business Strategy. From 1971, a Senior Research Fellowship had been funded by institutions concerned with insurance and later more financial encouragement was provided to teach insurance as a major subject in the M.Sc. Administrative Sciences course. As the range of expertise in the Centre thus rapidly grew, the M.Sc. options were gradually extended.

The valuable City contribution to the development of the Centre included the advice of The City Advisory Panel and The Industrial Advisory Panel, the provision of visiting lecturers, and, of course, funds. In June 1973, the Chancellor, The Rt. Hon. The Lord Mals Inaugurated an appeal for £350,000 to launch a new unit in Banking and International Finance to which the City responded generously and rapidly in full. The Council of Industry for Management Education granted £75,000 over four years to include financing the Chair in Business Strategy, referred to above, and to improve library provision.

During the academic year 1975-76 a working party was set up, chaired by Professor Dunn, to consider the future development of the Graduate Business Centre. It was readily agreed that there should be a change of name to City University Business School. It was not that postgraduate research was not thriving and it was not that postgraduate course numbers were dropping, for, "during a severe economic recession, the Centre has
held its own in the field of postgraduate studies. Well over 100 students attended the formal courses; these included 93 on the M.Sc. in Administrative Sciences, 9 on the newly introduced M.Sc. in Finance and 14 on the Diploma Course in Systems Analysis. It was because there was an unsatisfied demand for first degree business studies courses and that was to be the next area of development. The working party also agreed that the proposed move to a site in the Barbican was desirable.

David Glen retired on 30th September, 1976 after a seven year period of leadership in successful development of the Centre. Research had been developed in management, accountancy, financial management, managerial economics, insurace, portfolio investment management, marketing, industrial relations, personnel management, business planning and strategy, operational research, business law, systems analysis and internal auditing. The postgraduate courses we have noted above. Post-experience course earnings rose from £85,000 in 1973-74 to £171,000 in 1975-76. Part-time day release had become another avenue to the M.Sc. in Administrative Sciences with 30 students part-time in 1975-76. It was too a period when undergraduate courses in Banking and International Finance and Chemical and Administrative Sciences were started in collaboration with other departments and the B.Sc. Business Studies was under active planning to commence in October, 1977. Thus the Business School had, in ten years, become a major link between the City and its University, having earned its place as one of the leading business and management schools of the United Kingdom.

**Liberal Studies**

In common with other Colleges of Advanced Technology the Northampton had not too happily accepted the view that until the advent of Liberal Studies the College had been engaged in educating engineers to less than “whole man” standard. In fact, in the longer term, the range of disciplines taught by the College began to be extended from these small beginnings. The symphony of Liberal Studies and Engineering was not uneventful, for over the years more than one working party has considered the matter, and, “on the interpretation of what General Studies should include and how they should be implemented, widely diverse and sometimes irreconcilable views were held,” and, again, “the scheme represents a compromise solution to what has proved to be a difficult problem.” The terms Liberal Studies, Social Studies and General Studies were used interchangeably at this time. General Studies is the term now
used for what continues to be considered as an essential part of the education of City University students.

**General Studies**

In order more fully to allow economics, philosophy, psychology and sociology to develop in their own right, it was necessary to remove the Liberal Studies service teaching commitment to a separate administration. Thus, in session 1971-72, General Studies was hived off from the Department of Social Science & Humanities as a separate responsibility under D.E.P. Jenkins, Deputy Academic Registrar since 1966, and of the Electrical Engineering Department since 1961. The aim of the new General Studies, in which most students spent about one tenth of their time, was to provide "a means by which a student could study a subject outside his own syllabus so as to extend his range of interest and abilities, it was not necessary to equate General Studies with Humanities as had been done in the past. What we should be seeking is a liberal approach in the presentation of the subject matter and this is of paramount importance, a natural corollary to this was that in principle at least, every subject in the University was a potential General Studies subject." Obviously true, but if this view had prevailed in 1966 the engineers would never have had Liberal Studies in their courses! Thus in 1972-73 the pattern began to change and most departments of the University became involved in teaching in the General Studies programme. This enabled progress to be made in the development of Arts courses under the aegis of General Studies.

**Arts Administration**

The Arts Council had been involved in the promotion of a Diploma course in Arts Administration, at the Polytechnic of Central London, since 1967. Considering that the course should be more arts orientated than it was as part of a management school, the Arts Council assisted in its transfer to The City University in 1974. John Pick was appointed Director of Arts Administration Studies in 1976, but staffing in the various arts subjects has grown slowly, there being much emphasis on external specialists. In addition to the successful Diploma course, an M.A. part-time course was developed for 1977.

The Alport Lecture, named in appreciation of great endeavour on behalf of the University and the personal distinction of the second Pro-Chancellor, The Rt. Hon. Lord Alport, P.C., T.D., was first given in 1977. The subject of these lectures is within the field of arts administration.
Journalism

City University’s proximity to Fleet Street and its long tradition of degrees that included experience at the workplace, together made the setting up of the Diploma in Journalism an obviously sound development. The Diploma course started in October 1976 under the direction of Tom Welsh with 13 students selected from 120 applicants. The course is approved by the National Council for the Training of Journalists.

Music

Instruction in music at the Northampton started in the winter of 1904-05 when students from the discontinued classes at the Birkbeck Institute were transferred. Their teacher, Mr. Parker, came with them as instructor for stringed instruments. Dr. Davan Wetton, first conductor, choirmaster and organist resigned during 1906 and Seymour Dicker was appointed choirmaster and organist, leaving G.A. Parker to be conductor of the orchestra. The initial arrangement for payment to Dicker was one then common, that is to say an honorarium plus so much per attendance plus three quarters of the very low fees the individual music students paid. In 1924 this salary was grossed-up to £110 p.a. I Seymour Dicker retired in 1924-25 but continued as part-time organist, and G.A. Parker retired due to ill health in 1926. The Choral and Operatic Society of the Polytechnic at that time performed Ruddigore (1925) and The Gondoliers (1926), the latter to an audience of 1352!

G.F. Brockless was conductor of the orchestra from 1926-31 and this period was noted for concerts given by the Audrey Chapman Orchestra. These were very well attended from the first one given in 1923-24 and the practice was for Audrey Chapman (Mrs. Melville) and her husband to contribute financially, e.g. £109 towards the £200, the cost of the first three concerts. The Finsbury Borough Council paid for printing the publicity material and the programmes and the College gave free accommodation. There was a series of musical education talks in association with the concerts. All very much part of the Polytechnic concept. “The management desire to continue the propaganda of musical education in Clerkenwell.” The series continued for several years.

Charles Stanford was made on Honorary Member of the Polytechnic in 1925 in recognition of more than eleven years service to the Choral and Operatic Society. In 1931 Mr. W.E. Albon, who was already Musical Director of the Operatic Society succeeded Brockless as conductor. The Annual Report for 1934-36 records: “the Polytechnic has been fortunate in
obtaining this year as Musical Director the services of Mr. Leslie Woodgate, Choirmaster to the British Broadcasting Corporation. It is confidently anticipated that as a result a conspicuous revival of the musical activities of the Polytechnic will take place.” He was reappointed the following year.

A Visiting Director of Music, Leon R.D. Lovett, and Nicholas Danby, Honorary University Organist were appointed in 1967. Both were with the Guildhall School of Music and Drama and contacts began to develop. A choir and orchestra were formed and organ and piano recitals, orchestral concerts and opera became more common in the University. In September 1975, Malcolm Troup came from the Guildhall School to be Senior Lecturer in Music to develop a music degree. Two musicians on the University academic staff, Dr. A.H. Seville of the Physics Department and D.J. Finlay of the Electrical Engineering Department had been seconded to plan a science based music degree to have distinctive features not present in the traditional musical curriculum. Another musician, Dr. C.A. Padgham of the Optometry Department, who had given organ recitals and organised other musical activities over the years, was also keenly interested in the new venture.

Thus the Graduate Diploma Course of the Guildhall School was remodelled to become a four year degree of The City University with much continuing cooperation from the School. Commencing 1975-76 with twelve students, the course has a bias toward ethnomusicology and computer and electronic music. The course includes a practical experience year. The electronic music interest sprang from work already being done in the University and in 1973-74 the Worshipful Company of Musicians had funded a research studentship in electronic music. Some twenty or so lunchtime musical concerts are given in the New Hall each year by staff, student and external musicians. Music is now firmly established in the University.

**Adult Education**

Its location in the midst of the major area of activity of the University of London might have been thought to preclude the possibility of The City University playing any role in adult education or university extension work. For both historical and administrative reasons this is not the case. From the earliest days University of London extension courses were conducted from the Mountford Building in fulfilment of the Institute’s role as a cultural centre for Clerkenwell residents. The administrative reasons relate to Ministry encouragement of such work and to the availability of grants from
the Department of Education & Science and the Inner London Education Authority in respect of teaching costs on the assumption of "Responsible Body" status, (accorded in 1975/76). The courses must not require specified entrance qualifications and must be open to the general public on payment of a course fee.

Adult education courses began at The City University in 1970-71 with a small pilot scheme, a cautious approach that had the merit of measuring demand. H.R. Klein, lecturer in mechanical engineering was appointed Director of Adult Education Courses in April 1978 after having been seconded to the work in previous years.

**Arts and Related Studies**

The growth in importance of the arts studies, relative to general studies, led to a change of name from General Studies to Centre for Arts and Related Studies, in 1975-76. In addition to the success of the arts courses, research for higher degrees was developing and short courses were being mounted. D.E.P. Jenkins became Director of the Centre for Arts & Related Studies, and further development of Arts Administration, Music, Journalism, Adult Education and General Studies was fostered by their being housed in the "Vogue" building adapted with a special U.G.C. grant.

**Educational Technology**

Not surprisingly in an university with a strong emphasis on technology, an agency was developed to provide and exploit all forms of teaching media. The Centre for Educational Technology evolved from earlier educational methods and services activities. L.F. Evans was transferred from Mechanical Engineering to direct the centre in September 1972. One week induction courses for training new academic staff were instituted and became annual events. The Centre runs workshops on teaching and learning and on the conduct of meetings. In 1977-78 a postgraduate Diploma Course in Teaching and Learning in Higher Education was started in conjunction with Hatfield Polytechnic and the University of Surrey.

**Research**

Research reports and memoranda were issued during the C.A.T. period, but the first full report on research in the new University was issued in January 1970. Professor R.N. Cox and his committee indicated a considerable development as compared with the pre-university period. The
report was forthright in noting that there were some members of academic staff who not only did not conduct research themselves but were somewhat hostile to it. Also, research effort was somewhat wide ranging and some concentration of effort was called for. Shortage of space (the new buildings were not then completed), cuts in finance, particularly the increased number of institutions in higher education chasing too few grants, were noted.

Reasons were sought for the slow growth of research. In 1972-73 it was adduced that ‘this may be partly due to the increasing difficulties which prospective research students are experiencing in obtaining financial support, especially now that the University Research Studentships are being phased out at the request of the Comptroller and Auditor General.’ Slow growth was again noted in 1973-74 and the following year. The Senate Committee on Research gave much thought to the best means of fostering research. From 1976-77 money was earmarked annually for Research Fellowships and Assistantships and for recognition of promising research fields by the formation of Research Units. About 30% of the equipment grant was earmarked for specific research projects. A conference on research was held in March 1979 and this and the Fellowships and the Units have focussed attention on research, on its interdisciplinary cross-departmental needs, and on its vital role in the University. The average annual value of research grants and contracts in the University grew from £18,887 to £787,583 between 1966 and 1978 and their current total value at 1st August 1978 was £1,690,895.

The Skinners’ Library

On the 1st of October, 1965, the University Librarian designate, Dr. B.J. Enright, took over a College Library estimated to contain some 20,000 volumes with some 350 current periodical subscriptions, 130 seats plus places in classrooms, and some 4,000 square feet of space in total. There was, in prospect, a new library, planned, not to appropriate university standards, nor yet to C.A.T. standards. It was known to be small at the planning stage and the U.G.C., when it became its concern, encouraged redrawing of the plans. Having had the first two libraries tucked away on top floors, the College had unaccountably planned its third, the one that was to become the University Library, on the two uppermost floors of what is now known as the University Building, with one totally inadequate lift. Only limited internal replanning for greater flexibility was possible.

Whilst the new library was awaited, the U.G.C. provided earmarked grants of £18,000 in 1965-66 and £24,000 in 1966-67 to build up stock. More
temporary space adjacent to the old library was made available, as well as storage space at the Angel annexe. Then, the basement of the Finsbury Public Library was acquired on a twenty-one year lease providing 6000 square feet of storage for which the U.G.C. contributed £15,130 for electrically controlled roll-store stacking. Senate Library Committee set up an Acquisitions Sub-Committee, new Regulations were introduced and, for the first time, fines were levied in respect of overdue books.

In 1967, a stock check recorded the existence of only 16,617 volumes. Microform and non-book media collections were developed and the University Archives Collection was started. In July 1967 two students were appointed to Senate Library Committee, initially for a two year trial period. Before leaving, in January 1969, to become Librarian of the University of Sussex, Enright had sectionalised the Library staffing into Readers’ Services, Acquisitions and Cataloguing, Information, and Media Resources. He had proposed that the Library be regarded as a teaching department of the University and that the senior members of library staff be enabled to supervise research. From personal knowledge he wrote:— "a library such as the Bodleian at Oxford continues to be recognised as providing tuition for both first degree and postgraduate work.”

He left after three years and three months having made a very real contribution to setting up an university library.

A Senate Working Party on Library Development set about considering the status proposal. Professor R.N. Cox was Chairman and Professors D.J. Alner and C.W. Miller were members, R.V. Fox, who was Acting Librarian, and about to be appointed as Deputy Librarian, presented the proposal and the new Librarian, P.R. Lewis, lately Lecturer in Library Science at Queen’s University, Belfast, joined the Committee on his arrival in October 1968. The Working Party reported favourably and the Librarian recorded in his annual report that the Sub-Librarians “are now in parity with the Lecturer Scale.”

Their role is limited to the provision of service teaching on the use of literature and information sources for students enrolled in other academic departments of the University, and to the supervision of research students working in appropriate fields of library science.”

A most unlikely source, namely the Colour Supplement of the Sunday Times, was the catalyst in the next development of the Library. In the issue of 30th November 1969, The City University Library appeared at the bottom of a sort of league table of university libraries, the measures used being book stock, funding, etc. Rapidly Senate proposed (and Council concurred) that £73,000 be transferred to the Library, being £53,000 from
Departmental reserves and £20,000 intended for a language laboratory. The aim was to double the book stock by the end of the quinquennium.

The move into the new library was effected in the summer vacation of 1970, a limited reading room use having been made of one area from May 1970. The new accommodation was found to be pleasing and amenable to study and by this time the number of staff had been moderately increased. The Skinners' Company covenanted £17,000 over ten years and this money was used for building up the Media Resources Collection. Lewis left in June 1972, after less than three years, to become Librarian of the University of Sussex as had his predecessor. By then economies were necessary with 230 periodical subscriptions not renewed for the following year and binding delayed.

S.J. Teague, Librarian of Chelsea College, University of London, succeeded Lewis on 1st May 1973, R.V. Fox having been Acting Librarian for nine months. A Senate Planning Committee of October 1971 had noted that the Library was, by U.G.C. norms, underprovided with space by some 20,000 square feet and the new Librarian set about persuading the appropriate committees of the need for the unused floor beneath to be allocated to the Library. A special U.G.C. grant was obtained for the adaptation and the additional floor was declared open by Sir Peter Parker on 15th May, 1979.

On the move of the Optometry Department to the Dame Alice Owen Building, the books and periodicals that had been housed in the Cranwood Annexe Branch Library since 1963 rejoined the University Library Collection in 1976. The remaining branch library, that of the Business School, was in Gresham College from 1963 until it was moved to Lionel Denny House in 1971. Special Collections have been acquired, such as Fincham (Optics), Auerbach (Art), and the London Society Library.

Book fund and staffing levels have been improved and a computerised issue system and computer output microfiche catalogue put into effect. Stock has grown to about 200,000 volumes with 1,700 periodicals taken. Bibliographical instruction is given to all new students. Thus the Library began to be able adequately to fulfil its central role in supporting the teaching and research of the University.

**Student Representation**

In 1935 the President of the Students' Union had written to the Governing Body, 'asking for the views of the Governors upon an enquiry which had been instituted by the University of London Students' Union regarding the representation of students upon the governing bodies of the
Colleges of the University and the Institutions allied to it.24 No action was resolved upon. Some thirty years later there was student unrest in the western world, arising from the growing economic independence of the young in society and the loosening of family ties. The Committee on the Age of Majority, under the Chairmanship of Justice Latey had recommended that 18 years should replace 21 as the legal point of commencing adulthood.25 Unrest, manifest in student anarchy abroad, was in Britain mainly channelled into a movement for student involvement in university decision making.

In 1965, the Students' Union addressed a letter to the Academic Advisory Committee regretting that there was no provision in The City University draft Charter for student representation on Council or Senate. The A.A.C. decided that students' interests were best safeguarded at a lower level. The National Union of Students opposed the granting of The City University Charter, amongst others, with the aim of getting written in provisions for student representation on Council, autonomous Unions and the right of appeal against disciplinary action.26 As we have seen, in the previous chapter, there were other objections made to the Privy Council and the Charter was somewhat delayed. By early 1966, the Privy Council expressed the view that provisions present in some of the charters under consideration should be present in all. One was the right of a student to appeal to Senate against suspension or expulsion and the other was that the Senate and the Council should be expressly empowered by the Charter or Statutes to establish joint Committees of themselves and representatives of the student body.

Thus a Joint Senate-Student Liaison Committee was set up as a means of rapid direct discussion of matters the students considered important. At the first meeting of this committee, in March 1967, they proposed that the President of the Union Society be granted a sabbatical year. At that date twenty two universities and university colleges and five other academic institutions operated such a system. The Committee agreed to put the proposal forward, the privilege to be considered in each case and accommodation in Hall and a grant to be provided. The first Sabbatical President was R.L. Timms, 1967-68. In 1973 a sabbatical year was granted not only to the President but also to the Secretary and by 1974-75 there were three sabbatical union officers.

A Council-Student Joint Committee was set up in 1967, "to consider and report on matters relating to the welfare of students other than those appropriate to the Senate-Student Liaison Committee." Its membership was the Pro-Chancellor, the Vice-Chancellor, two other members of
Council not being also members of Senate and four members of the Student Union, one being the President. These two joint committees together with membership of University committees such as Board of Studies, served to meet the demand for student participation until the academic year 1973-74. Students were, however, present as observers at meetings of Senate and Council for all items of "unreserved business" from session 1969-70.

The Union Society wanted full membership of Senate and Council to the total of a third of the number of Senate and a quarter of the number of Council and the right to publish decisions and minutes of both bodies. Vice-Chancellor Tait evolved from his earlier viewpoint: "in my personal view, it was inappropriate for students to be members of Council and Senate and it was quite wrong to speak about the "power" of decision making at these levels — it was not a "power" but a "responsibility"; he moved from this viewpoint to acceptance of the "quiet revolution" — "the tide of informed opinion running in favour of student representation." A working party considered the matter, and, in January 1969 Council agreed in principle to student representation on Council; the details to be considered by the working party. By June of the same year the working party reported and student observers attended until the Privy Council amended the Charter in time for session 1973-74.

Sir James Tait

The decision of Sir James Tait to retire somewhat early, with effect from the end of May 1974, came as a great shock to most members of the University. Clearly, however, the appointment of Vice-Chancellor is one of stress in periods of rapid change and is a position likely to be held for shorter periods of time in the future, by deliberate choice. Pro-Chancellor Lord Alport wrote that, in the normal course of events, Sir James would have retired on 30th September 1977, "but the current quinquennium will end in 1977," he went on, "and Sir James believed that his successor should have the opportunity of playing a part in planning the development of the University in the following quinquennium and not simply be saddled with cut and dried plans. It was typical of the man and a reflection of his continuing concern for the institution he had done so much to create that he felt it to be in the best interests of the University to go early." With further reference to Sir James Tait's personal commitment to the University, Lord Alport went on "only those most closely connected with him can know . . . the extent to which he has guided (the University's) development since this status was achieved." A succinct but accurate
account of Sir James's personal qualities was uttered by Professor David Alner at a meeting of Senate at this time: "Sir James," he said, "has held the reins of office lightly, but also very firmly, and he has provided superb leadership and guidance coupled with wisdom, sympathy and understanding." 31

Certainly he could be well pleased with what had been achieved in his seventeen years as Principal. Equally certainly there were inevitably many disappointments in developments that could not take place, due, in the main, to the gathering gloom of the economic situation as the recession took hold. In the College of Advanced Technology period, Tait was Secretary of the Committee of Principals of these institutions. The Committee held fifty-four meetings, many of them at the Northampton. The whole range of birth pangs of new universities was discussed and early on the Committee had a predilection for the CATs becoming Royal Colleges of Technology with the degrees being B.Tech and M.Tech. Not surprisingly, Sir James considered that the Diploma in Technology scheme had been a very great success in gearing higher education directly to the needs of industry, and that the Dip.Tech died for the greater cachet of a degree.

Although the sandwich course system, the distinctive contribution of the Northampton to higher technological education, remained an integral part of many degrees, it could not remain the only route. In the area of new degrees, however, the distinctive City University experience of a vocational component in higher education has assisted the development of social science degrees for nurses, systems science degrees for naval officers, arts administration, journalism, music, actuarial science, law, etc.

In his annual report for 1971-72, Sir James wrote, significantly for the immediate future, "it happened that in the first year of the quinquennium (i.e. 1967-68), our undergraduate population increased by no less than 14% and we recruited academic and support staff to meet the expansion which in the event was not maintained in the areas for which we had made the provision. Unfortunately it was not possible to transfer staff who can teach, say, electrical engineering or physics to fill vacancies in graduate business studies or computer science and there has consequently been some imbalance in departmental student staff ratios." 32 The student target at this time was met by 450% in the postgraduate area and was some ten per cent under in undergraduate numbers!

Thus the whole time of Sir James Tait's Vice-Chancellorship there were problems relating to finance, student numbers and overstaffing. He himself observed that the seven fat years were just before TCU became an
university; the seven lean years followed. Nevertheless, in spite of a very poor economic outlook for the country, enthusiasm was maintained in the University. There was an air of optimism, of growth that was a long time a dying. New buildings were opened and new courses started to meet known needs and the great value of the links with the City of London began to be apparent.

As a palpable measure of high esteem, the Lord Mayor of London attended the farewell luncheon given to Sir James by the University Council on 22nd May, 1974. At this and similar functions given by other bodies in the University, Lady Tait was present to receive the very genuine appreciation of all for the part she herself had played in the corporate life of the University. The new Civil and Mechanical Engineering Building was named the Tait Building by Dr. Oleg Kerensky, F.R.S., on the 19th March 1976 in the presence of Sir James and Lady Tait. As to appreciation in other places, he received the degree of Doctor of Laws Honoris Causa from the University of Strathclyde in 1967 and his Knighthood in the Birthday Honours of 14th June 1969. Following an appeal to staff and students past and present organised by Mrs Maria L. Watkins, the portrait of Sir James Tait by Ruskin Spear R.A., A.R.C.A., now hanging in the Senate Room was commissioned.

By repute, he had the wit to respond to London University’s objection to the proposed name “City University, London”, as not being distinctly different from the style and title of the older foundation, “perhaps you would prefer us to be known as the Greater London University.”

There are many persons who have served the College and the University over the years who are not mentioned in this book, but Miss Gladys Needham, M.B.E., clearly should be singled out for mention. She gave forty-four years of dedicated service including her key role as Secretary and Personal Assistant to Sir James Tait and as Secretary to the A.A.C., the Academic Board and the Senate, and was awarded the honorary degree of M.A. on her retirement in December 1974.

Dr. Edward Parkes

Professor Alner, the Pro-Vice-Chancellor, acted in the period between June and 1st of October 1974 when Dr. Edward W. Parkes assumed office. Dr. Parkes was formerly Professor of Mechanics in the University of Cambridge, Fellow of Gonville and Caius College and Chairman of the University “Needs” Committee. He had been Professor and Head of the Department of Engineering, University of Leicester 1960-65, and had had earlier experience at the Royal Aircraft Establishment and in industry. His
education was gained at King Edward's School, Birmingham and St. John's College, Cambridge graduating with first class honours in the Mechanical Sciences Tripos in 1945. His research interests are braced frameworks, fields of elasticity, thermal stresses and dynamic plasticity.

Edward Parkes brought a different style to the office of Vice-Chancellor of The City University. Equally active and personally involved, his leadership was less overtly personal control than was that of Sir James. A residence in Myddelton Square was acquired and that, too, became a centre of University life. At his first Council as Vice-Chancellor, Edward Parkes noted the problem of inflation not being fully matched by U.G.C. grants and the fact that new development was only possible either by the generosity of private donors or by being self-financing. Virtually fixed funding meant not filling posts. Universities were soon down to annual funding and the process (started in 1966) of gradually bringing foreign student fees up to an “economic” level continued. When the University, quixotically, decided to leave overseas student fees for 1976-77 at the 1975-76 level, ignoring the Government’s dictat of an increase of 30% overall, the problem was merely postponed to a subsequent year at cost to the University’s reserves.

The committee structure was subjected to examination particularly the interface between academic and financial decisions and some changes were made. The aim here was to avoid ad hoc decisions based on the exigencies of finance and to progress to longer term planning. But, in reality, failure of national longer term financial planning made this almost impossible. We have, however, long experience of this situation for the L.C.C.’s triennial funding ceased in 1930 due to the financial crisis and U.G.C.’s quinquennial funding began to fail in the first quinquennium of The City University’s existence and it failed in the second five-year period. The present annual cost limits method of the U.G.C. is similar to the L.C.C.’s deficiency funding.

The committee structure was, however, adjusted, the Finance Sub Committee of four Senate members of Council appointed to the Sub-Committee on the recommendation of Senate with the Vice-Chancellor as Chairman, became the central body for the allocation of resources. The structure of the administration was adjusted in minor ways and the Business School was reorganised. Transfer and retraining of staff commenced. Law and Music were started not exactly as foreshadowed in Sir James Tait’s period of office. Arts Administration and Journalism commenced, the Barbican project to provide a City home for the Business School, was fostered, the Optometry Department was rehoused close to
the main University site, and the University Library was supported and extended. In connection with new courses, the contribution of Dr. L.A. Fairbairn, the Academic Registrar, to the sound basis on which they have been started has been considerable. Dr. Edward Parkes was invited by the Secretary of State to become Chairman of the University Grants Committee from October 1978. In his short period at The City University he had made a great contribution to the academic development of the University and, together with his wife, Margaret, to its community life.

References
7. Northampton Polytechnic Institute Memorandum to the City Parochial Foundation, 1932.
(Chairman: Lord Robbins)
9. Committee on Higher Education Ibid. p.284, para 97.
11. Ibid.
16. The City University Council loc cit.
17. The City University Minutes and Reports, 1973-74. p.106.
20. The City University Senate 14. The Library as an academic department.
22. The City University loc. cit.
Polytechnic
   Age of Majority. (Chairman:
   Mr. Justice Latey)
27. The City University Union Society The case for student membership on the
   Senate and Council, 28th November 1968.
30. The City University loc. cit.
31. The City University Senate 51.