

A HISTORY OF THE BIOLOGY DEPARTMENT, QUEEN ELIZABETH  
COLLEGE 1912 – 1985

By Brian Gardiner

'History is a nightmare from which I am trying to awake' (J. Joyce, Ulysses)

IN THE BEGINNING : 1875 - 1912

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In 1875 a series of lectures and classes for the education of women was started in Vestry Hall, Kensington (now the Bank of Iran). In 1877 they were transferred to 7 Observatory Avenue (now 9, Horton Street). The aims of the course included that of "preparing the way for the foundation of a College for the education of women in all those branches of learning which enter into and together make up a University Education." The lectures, mostly given by the staff of King's College, were attended from the beginning by some 500 women! The house in Observatory Avenue was soon found inadequate and in 1885 the "Ladies Department" (as it was known) moved to three houses in Kensington Square (nos. 11, 12 & 13) and became the Women's branch of King's College in the Strand, which in those days did not admit women either to its courses or examinations.

Although the majority of the early students came more for the purpose of culture than with a view to a professional career, many of the courses (including science) were arranged in preparation for external examinations. In 1908 the Home Science Department was founded (and occupied the top floor of the largest of the three houses (no 13) in Kensington Square) and two years later (January 1910) the Women's Department was incorporated in the University as a distinct College, with the name of King's College for Women.

In 1911 the Management Committee of the College (which included 11 women and 8 men) was convinced by Dr. John Atkins that what was now needed was a new building devoted entirely to Home Science.

By January 1912, a Trust Fund (initiated by John Atkins) for the proposed new College totalled well over £100,000, £20,000 of which had been donated by Lord Anglesey and £1,100 raised by the Management Committee.

With the firm prospects of a new College building, incorporating laboratories and a student hostel (which was subsequently to be named after Queen Mary), the Executive Committee of

Kings College for Women at Kensington Square, adopted the following resolution in March 1912:

*"That the future policy with regard to the teaching of the subjects in the Course (meaning Home Science) should be to ask the University of London, when the Course is sufficiently organized, to appoint Readers in the principal subjects, under the direction of Professors, and that in the meantime so far as is possible, the existing staff should be given opportunities to enable them to qualify for such appointments".*

The principal subjects (and Departments) were: Chemistry, Physics, Biology, Hygiene and Physiology, and Bacteriology.

In the meanwhile Professor Arthur Dendy had given a course of lectures relating to biological topics at King's College for Women, Kensington Square (1911-12). This course was designed for second year and postgraduate students as well as the general public (Arthur Dendy, D.Sc., F.R.S., was born near Manchester in 1865. After graduation he came to work at the British Museum (Natural History) on the Challenger collection of sponges in 1886. The following year he went to Melbourne University and in 1894 to Canterbury College, New Zealand where he Professor of Biology. In 1903 he moved to Cape Town as Professor of Zoology and in 1905 returned to London as Professor of Zoology at King's College, a post he held until his death in 1925). Despite several criticisms voiced about the course, Professor Dendy was appointed head of the new Biology Department in March 1912 at a salary of £150 per year. At the same time Dr. Gertrude Dixon, who had helped with the teaching of Home Science at the end of 1911, was appointed Lecturer in Biology at a salary of £125 per year. The draft estimates for Biology, 1912-13 were : equipment £82. 8s. Od, current expenditure £18. 5s. Od.

#### EARLY YEARS : 1912 -

Thus the Biology Department started in the session 1912-13 at Kensington Square with two members of staff and a budget of £100. 13s. Od. By the summer of 1912 the present Blundell House site on Campden Hill was chosen for the new College and a 999 year lease was granted in July 1913.

The first section of the College building was completed in 1915 and the Home Science Department (including Biology) transferred there from Kensington Square, under the name of the Department of Household and Social Science of King's College for Women, in 1916. In the summer of 1916 the University instituted a Diploma in Household and Social Science, the

first examination for which was held in 1918. In 1920, the three year course leading to the B.Sc. Pass Degree in Household and Social Science started.

By 1917 Professor Dendy and Dr Dixon were teaching courses in the Biological laboratory on the 2nd floor of the Anglesey building for the University examination in Biology, for the one year course examinations and for the first year medical and conjoint board course. From 1920-1953 the Biology Department was chiefly responsible for the biological component of the Intermediate Science examination, which was the first examination for the B.Sc. (Household and Social Science) degree. Today, the legacy of this course remains as the Economic Biology course for first year B.Sc. (Nutrition) students. From 1925 onwards the Department was also responsible for teaching anatomy and biology to Sister Tutors (we finished teaching it in 1967, the course ceased in 1975).

With the move to the new building the Biology Department was provided with a laboratory assistant. The first was Miss Willis (1916-17) who was succeeded by Miss Freda Newton (1917-21). During 1918-19 Miss Bardsley, another assistant, helped in both Biology and Physics. The laboratory assistants were given their midday meal free in the hostel on five days in the week. However, their scale of wages was fixed to allow 3/6 per week to be paid by the College to the Hostel in respect of each laboratory assistant. Their wages commenced at 7/6 per week rising by 1/6 a week each year to 16/6 after which they ceased to rise automatically. In February 1917 the College magnanimously allowed Mr Gormley the engineer (and stoker) £5.0s.0d towards the expense of an artificial leg; he had lost a leg in the war.

In 1917 Dr. Dixon was seconded for war work to The Royal Commission on Wheat Supplies (Ministry of Food) and later that year resigned her post at Kings College for Women. She went on working for the Ministry of Food for several years thereafter and interestingly gave the first piece of sponsored research to Q.E.C. in 1917, when she persuaded Dr. Tinkler (Chemistry Department) to experiment with the boiling of Rangoon beans to see whether or not they contained any appreciable amounts of hydrocyanic acid.

Following Dr. Dixon's resignation, Professor Dendy (who thought the academic staff salaries too low and remember he was also being paid a salary by King's in the Strand!) said he was prepared to relinquish permanently, the sum of £50 a year from his salary if the Finance Committee would make a full time Biology lecturer appointment at a salary of £300. The Finance Committee agreed to grant the increase towards which £50 was offered by Miss Maud Taylor on condition that the lecturer carried out research in the College. Shortly

afterwards (1917) George Edward Nicholls, D.Sc., A.R.C.S., was appointed to fill this Biology lectureship.

With the work of the Department increasing, the Dean authorised the purchase of twelve microscopes at eight guineas each and in November 1917 the additional expenditure of £6 for a microtome. Then in July 1919 Miss Lilian Russell, the first Biology demonstrator, was appointed. Miss Russell B.Sc. (Sheffield) was to assist with the work in the laboratory and also undertake some lecturing; she was paid £150 a year. Thus by the end of 1919 the Biology Department consisted of two lecturers (Prof. Dendy & Dr Nicholls), a demonstrator (Miss Russell) and a laboratory assistant (Miss Newton). This was to remain the complement of the Department until 1936. In 1920 we find the first record of the Biology laboratory being hired out for 1st M.B., examinations. The hire including provision of alcohol was £3.3s.0d per day and the microscopes £1.1s.0d per week each.

Towards the end of 1920 Dr George Nicholls, who incidentally had secured the first grant to the College from the Royal Society (for a research microtome), left for the Chair of Biology at Perth. He was replaced in January 1921 by Miss Philippa C. Esdaile, D.Sc., who was appointed Reader in Biology at a salary of £500. Dr Esdaile held two posts when she joined King's College for Women as she had to work out her time as Senior Lecturer at Birkbeck College to the end of the Spring Term 1921. From the date of her appointment (Jan. 1921) until her retirement, Philippa Esdaile was the head of Biology despite the fact that originally her terms of appointment stated that she would be responsible, under the general supervision of the Professor in charge, for the organisation and general conduct of the Department. She assumed command and eventually in 1923 Dendy's honorarium was stopped through reasons of economy. Dendy finally resigned in February 1925 shortly before his death in the following month.

In 1921 Mr Biddolph replaced Miss Newton as the laboratory assistant and in 1922 Miss Marjorie J. Triffitt, B.Sc. succeeded Miss Russell as Biology demonstrator. Marjorie Triffitt came from the London School of Tropical Medicine and after gaining her M.Sc. left in 1925 for a lectureship back at her previous college. The expenditure account for 1923-24 was: current £100, equipment £28, special equipment £40. Money was obviously a continuing problem, and in October 1923 the Department, having more microscopes than were essential, exchanged 5 of the older ones for 2 condensers, while in Dr Esdaile was granted permission to spend £5 saved on the laboratory assistant's wages, on slides for the Department. Surprisingly, total Biology expenditure never exceeded £170 per annum until 1946 when

current expenditure leapt from £114 to £420. However, it then returned to £400, where it remained until 1956.

All this time the College was known as the Department of Household and Social Science of King's College for Women and had a governing body of its own. This last feature was an anomaly since we should really have been under the Delegacy of King's College. During the 1920's Sir Ernest Barker, the Principal of King's, tried to bring about a reunification. The Biology Department (Dr Esdaile in particular) strongly supported Sir Ernest, and in 1923 persuaded the Academic Board to pass the following motion (nem. con):

"That in the opinion of this Meeting, the effect of union with King's College, through King's College for Women, would be to the advantage of both staff and students."

However, such reunification would have had to be over John Atkins dead body, and in 1928 a resolution of the Senate, embodied in the new London University Act, finally severed the connections between King's College and the Household and Social Science Department and recognised the latter as an independent School of the University under the title King's College of Household and Social Science.

Returning to the Department; following the resignations of Marjorie Triffitt and Professor Dendy in 1925 our strength was soon made up by the appointment of Miss Doris Crofts, M.Sc. (Reading) as Assistant Lecturer in 1926.

In the same year the first two research students joined the Department: Miss Ethylwynn Trewavas, B.Sc. (Reading) on the Gilchrist Research Scholarship, and Miss Daphne Auberton, B.Sc. (Bedford). Miss Trewavas worked on the hyoid apparatus of frogs and Miss Auberton on the anatomy of *Cepaea*. Both projects were suggested by the British Museum (Natural History). Coincidentally, after receiving their doctorates both women joined the B.M. (N.H.) and were among the first three women to be on the established staff of that institution. (The fees for a Ph.D. course in those days were 15 guineas a year for our graduates, 21 guineas for others. In 1926 the price of lunch to non resident students increased from 9d. to 1/-). We had several laboratory assistants during this time including Miss Bruce and Miss Oliver, but in December 1928 Mr Norman Davey became the laboratory assistant and remained with us until 1968.

During 1926-27 Miss Trewavas helped out as a part time demonstrator and lecturer, (during illness of Dr. Crofts) and in 1928 Miss Annie G Hill, M.Sc. (Dublin), was appointed part-

time demonstrator to the Department ( $16^{1/2}$  hrs per week) with accommodation and facilities for research provided should she wish to devote the remainder of her time to such pursuits. Miss Hill was replaced in the following session (1929-30) by a botanist, Miss Sybil Lockyer, M.Sc. (Bedford), who became a fulltime Assistant Lecturer in 1932. The part-time lecturer earned £25 in 1930 and the same year the hours of the laboratory assistants were increased from 25 to 30 hours and their wages from £2-5s. to £3-10s. per week. During the Summer of 1932 the Department ran its first vacation course in Biology. This consisted of 22 lectures and 22 periods (2 hrs in each) of practical and proved very popular among Secondary School mistresses. The Staff Luncheon Club acquired its first licence that same Summer and Doris Crofts was re-elected a member of the Executive of the Council of the A.U.T.

When Sybil Lockyer was made a full time Assistant lecturer and Demonstrator in 1932, Miss Phyllis Gardiner, B.Sc. (King's), became the part-time demonstrator (1/4 time). This was the first real increase in staff, albeit only an extra part-time demonstrator, since 1918.

In 1934 the number of lectures given were as follows: Dr Esdale 170, Dr Crofts 60, Dr Lockyer and Miss Gardiner 15 between them.

In the Summer of 1934 Sybil Lockyer married Mr Wales (who became a member of our Finance Committee in 1947, and our Treasurer in 1953). Mrs Wales resigned in 1936 whereupon Phyllis Gardiner became the Assistant Lecturer and Demonstrator in her place, while she, Sybil, was offered the demonstrating previously done by Miss Gardiner. This Sybil accepted and helped out Dr Crofts on Tuesday mornings throughout 1936.

In 1937 Dr Crofts was awarded a D.Sc. for her work on the development of *Haliotis* and during the session 1937-38 Miss Elizabeth Gaffney, B.Sc., filled the part time demonstratorship vacated by Mrs Wales.

In 1939 the College was evacuated, first to Cardiff and then the following year to Leicester, where it remained for the next six years. In 1941 Miss Gardiner left for National Service, not returning until July 1946. Dilys Jones, M.Sc. joined the Department as an assistant demonstrator in 1942, to help fill the gap. She was soon employed assisting Dr Crofts in the Ministry of Agriculture's survey on wireworms in relation to crops. During the war the entire College was used for the accommodation of Gibraltarian refugees. On one occasion a high explosive bomb struck the north east corner, demolishing the staircase and damaging the Biology Department, and further damage to the Department was caused on February 19th

1944 when another high explosive bomb demolished the entire East front of the College and blasted the remaining three sides of the quadrangle.

In 1948 Dilys Rawson (nee Jones) was made a full-time Assistant Lecturer (after a period of part-time work) bringing the number of fulltime staff to 4, and in 1951 Ann Crawford (later Mrs Jordan) joined the technical staff, so doubling their number, and stayed with us until 1972. From 1946 the Heads of Departments were provided with one Secretary (Mrs V. Clark) between them. From 1953 there was an additional assistant secretary, Miss Rene Matthews, who in 1958 became the Biology Department's first secretary.

Dr Esdaile retired in 1951 and was replaced as Head of Department by Dr Doris Crofts who was also appointed Reader in Zoology. Miss M. Sharman, M.A., was appointed Assistant Lecturer for the session 1951/52, but she was soon replaced by Miss Helen te Winkel, B.Sc., in the following session (1952/53). Helen te Winkel was the first botanist to be appointed since Mrs Wales (1929-1933).

In 1953 the name of the College was changed to Queen Elizabeth College, and during the quinquennial visit of the University Grants Committee of 1955 a new building to house the Departments of Nutrition, Bacteriology and Biology was first proposed.

At the request of the University the College agreed to admit from October 1957 men and women students for B.Sc. Part I in Botany, Chemistry, Mathematics, Physics and Zoology and Part II in Chemistry, Mathematics, Physics, Physiology and Zoology; it further agreed to Part II courses in Botany when space permitted. The plans for the Atkins Building were subsequently adapted to allow additional room for Botany and Zoology and the building itself was included in the University building programme for 1958. The start of the B.Sc. General Honours degree heralded a new and exciting era for the Department. No longer was Biology to be just a service department for the B.Sc., Household & Social Science, but would now teach its own degrees (Zoology, Botany). This meant increased staff, resources and accommodation. and the concomitant change in academic status. With the start of the new degree in 1957 two new Assistant lecturers were appointed, Joyce Rigby in Zoology and Stella Rogers in Biology (Stella was a botanist as was Helen te Winkel) and one new technician (Beryl Fielder). That same year the College changed from DC to AC. At the end of the session (1957/58) 16 students took Part I Botany and 24 took Part I Zoology (few survived). Meanwhile (1957) Senate approved the institution of a Chair in Zoology and an additional lectureship in Zoology from October 1958, to cover the extra work caused by the Part II B.Sc. (General) degree course.

Dr Crofts retired in 1958 and Garth Chapman, Ph.D., previously lecturer at Queen Mary College succeeded her and was appointed to the Chair of Zoology, in October 1958. Joyce Rigby was promoted to the Lectureship in Zoology, and Brian Gardiner was appointed Assistant Lecturer in Biology (there were now 5 zoologists and 2 botanists). A further technician was also appointed (Rosalie Clark) bringing their numbers up to 4.

In October 1958 there were 191 students at Q.E.C. and the Biology Department expenditure was: current £1,000, research £300, equipment £1,000. The seemingly large equipment grant was intended to fit us out for the new building (Sir John Atkins Laboratories) and consequently in 1960 the equipment grant was zero. The Part II B.Sc. Zoology course started with 10 students (including Maureen Palmer, who later became a Lecturer in the Physiology Department). At the end of 1958/59 Helen te Winkel resigned and was replaced by John Vaughan of Chelsea College.

The Sir John Atkins Laboratories were completed in the summer of 1960 and biology teaching began there in October. With the move to the new building, Michael Black was appointed in October 1960 to the additional Lectureship in Botany needed to prepare for and run the B.Sc. Part II Botany. A further technician (Jean Powell) was also appointed. At the start of the session (1960/61) we were awarded our first D.S.I.R. (Department of Scientific and Industrial Research) studentship (Maureen Palmer) and allocated our first college postgraduate scholarship (Geraldine Baker). Research was gathering pace and later in the session Dr. Angela Taylor joined us on a Wellcome Research Fellowship (working on the metabolic requirements of helminths). The Sir John Atkins Laboratories had their official opening on 9th May, 1961 when the Queen Mother toured the Department. She saw examples of the research being conducted as she walked around Laboratory 1 and contrasted the fossil fishes on display with those she had seen on the foreshore near Thurso. She was introduced by Professor Chapman to several of the staff and to one of our students, Maureen Palmer.

In October 1961 an additional lectureship in Botany was established and Stella Rogers was promoted to this position; she was succeeded as Assistant Lecturer by Jim Heale. An additional Assistant Lectureship in Zoology was established at the same time and Alan Brafield was appointed to that post (October 1961). Thus by the autumn of 1961 the Department comprised six zoologists, four botanists, five technicians and seven full time research workers (including Dr Taylor). In the next session (1961/62) we began teaching B.Sc. Part II Botany and six new fulltime research students joined the Department. Among our new research workers that year was Miss F. Eрман, a NATO scholar from Turkey,

introduced to us by our very first research student (Ethylwynn Trewavas) and Mr Milton Freeman on a Carnegie research scholarship. Milton Freeman worked on Artic Sticklebacks and on anthropological data collected during his time spent living with Eskimos. That session the number of published papers rose to 9.

During the session 1962-63 Dr Ralph Nursall, an Associate Professor in the Zoology Department, University of Alberta, became the first visitor to spend a sabbatical year with us. He returned to us from time to time, developing a relationship between the two departments which resulted in Brian Gardiner spending a sabbatical year in the University of Alberta and Alan Brafield spending two summers teaching there.

Now that Part II Botany was well under way Senate agreed to the establishment of a Readership in the subject in October 1963. The position, however, was not filled and as an interim measure an additional Assistant Lecturer in plant physiology was appointed Michael Richardson, B.Sc. With this appointment (October 1963) the Biology Department became the largest Department in the College in terms of academic staff (11) a position we were to retain until the end of 1966. That session (1963/1964) we were also to acquire our first and only Superspeed (ultra) centrifuge, courtesy of the Agricultural Research Council (£2,363).

One of the features of the original Sir John Atkins laboratories was the number of toilets. Over the years the Biology Department converted four of these to other purposes. The large student one (Gentlemen) at the end of Laboratory 3 made a substantial washing-up and inoculation area (1961) while another in the basement (Ladies) became the first constant temperature room in 1965.

The session 1964/65 was one of the more auspicious in the Department's history for it saw the appointment in October 1964 of Jack Edelman, Ph.D. (Sheffield), previously Reader in Enzymology at Imperial College, to the Chair of Botany. Jack Edelman brought with him five research students (one of whom was John Chapman) and in February of 1965 persuaded Mr Vic Newbury to join us from I.C. as a Deputy Chief Technician. We now had 12 postgraduates, 3 research assistants and one research fellow. Together with the residue of a grant he held at I.C., Jack Edelman secured a total of £18,934 in research grants for the Department in his first year (1964/65). Early in 1965 a programme of laboratory conversions took place. One of these involved removing the wall between rooms 2 and 3 on the ground floor. Since room 2 belonged in those days to Mike Black he had the privilege of wielding the sledge hammer first! By the end of that session we had 12 staff and 11 technicians (including 6 juniors) and the number of papers published jumped to 23. 1965 also saw one of our first

joint ventures when we acquired an auto analyser and technician to run it, in conjunction with the Nutrition Department.

For the session 1965/66 the Department received a current expenditure grant of £3,500 and an equipment grant of £1,000, but by January 1966 we had to go cap in hand and ask for an additional £8,000 to cope with excess expenditure (mainly on glassware). During the winter snow a branch fell on Rene Matthews' car, while at Easter the field course at Flatford Mill ended in our being banned from that establishment. Despite a later escapade at Swansea in Summer 1971, field courses, since the arrival of Mike Llewellyn, have been a notable feature of the Departments' activities, and we have maintained an enjoyable and long association with Peter Carpenter's field centre at Caer Llan. Mike Llewellyn's courses replaced a succession of earlier courses run by Joyce Rigby at Juniper Hall and Garth Chapman at Millport (not then a part of the University of London). Early in 1965 Dr J.J. Head was appointed to a temporary lectureship in botany to replace three members of staff who were going to the University of Ife for one term each under the Vista Scheme (John Vaughan, Stella Rogers and Mike Black). For the term Mike Black was at the University of Ife, Alan Brafield was teaching for a term at the then adjacent University of Ibadan. That session also saw a drastic change in technical staff, six persons leaving and only one new junior (Clive Daws) joining us. By 1970 the number of technicians again reached 11, but by 1972 it dropped to 10 and went down to 9 in 1979. Two more technicians were lost in the early 1980's and today we have the princely total of 7.

On account of the unexpectedly large numbers of second and third year students for 1966/67 (67 Zoology Part II and 56 Nutrition and Household Science 1st year) two new Assistant Lecturers were appointed in 1966, one to replace Miss Gardiner who retired that summer (those were the heady days following the Robbin's report when we could admit as many students as our laboratories would hold and then use our large student numbers to acquire more staff!). The Assistant Lecturers were John Tunstall, B.Sc. and David Lewis, Ph.D. At the same time (September 1966) Gwyn Jordan, B.Sc. was appointed to succeed Mike Richardson who had left for Durham.

The session 1966/67 was another auspicious year in the Department's history. We were given a capital grant of £24,226 plus £5,670 for the extension of the Department. This money built and equipped the extension laboratory presently used for plant physiology research (completed in 1968). More importantly, the new Course Unit system came into operation. This proved to be the one most unifying factor in the Department's evolution. It finally

brought zoologists and botanists together in the teaching of a single degree (Biology). The end of the session saw the transfer (Sept. 1967) of Dilys Rawson to a part-time Senior Lecturer post in connection with the Sister Tutor's Diploma course. She was replaced in the following session by John Chapman (as an Assistant Lecturer). The number of postgraduate students increased to 17, the same number as the papers published that year.

With the completion of the extension to the Sir John Atkins Laboratories in 1967 (for Chemistry, Maths, Biochemistry etc), the Department acquired valuable additional property in the shape of the former residence of Lord Macaulay's coachman (the main house, Holly Lodge, had been demolished to make way for the second phase of the Sir John Atkins Laboratories). The architects for the extension had used the Old Coach House as a site office during the previous three years, but this building was scheduled for demolition at the end of the contract. Garth Chapman arranged a stay of execution and in 1968 persuaded a section of the Smithsonian Institution of Washington, the "Primate Biology Unit" (under the Directorship of Dr John Napier), to move into the rescued premises. In September 1968 David Lewis and John Tunstall resigned and were replaced by Michael Llewellyn, B.Sc. and Peter Montague, B.A. Furthermore, 1968 was the year the Department started fossil collecting trips and over the years we have visited such sites as Folkstone, Sheppey, Peterborough, Sevenoaks and Abbey Wood. When we visited the last locality (1968), we were given permission to surface excavate only (6"). Luckily nobody checked our activities for at one point Vic and Clive dug a hole several feet deep! Also in 1968 we first leased space from Chelsea Physic Garden and over the next few years this was used for both undergraduate biological projects and postgraduate research. Eventually we were to build a small greenhouse in the Garden, mainly for the growth of sugar cane. To the dismay of all concerned the brick base (built under contract) turned out to be a parallelogram rather than the more traditional rectangle! Finally that session (68/69) the Nuffield Foundation made an award to the Department "for the preparation of teaching materials in Biology" and Dr Peter Bowen from Western Ontario and Oxford was appointed to carry out this task. With this appointment we gained an extra secretary, and for the next ten years we were to have the benefit of two secretaries servicing the Department.

During the next session (1969/70) the teaching staff was augmented by two honorary lecturers, Dr Napier and Gilbert Manley (courtesy Smithsonian Institution) and one visiting Professor, Dr. A.J. Vlitos. There were now some 25 research students, including 4 research assistants, and three more staff rooms on the first floor were, knocked into the large research laboratory (this laboratory is now used for student projects). There is little doubt that the late

60's and early 70's was the Department's most opulent period, nevertheless the Department is fondly remembered by the research students after that time as having a most friendly and homely atmosphere. In that same period we encountered some of our worst problems with Holland Park School.

In 1970-71 Professor Chapman took a sabbatical year in the U.S.A. In his absence the Department voted to change to an alternating year system for second and third year students which we put into operation in 1971 and has been with us ever since. Looking back this was an imaginative act (instigators Alan Brafield and Mike Black) for at a stroke it cut our teaching load by nearly half and allowed the staff far more research time and yet made possible a significant increase in the breadth and depth of subject area taught by the Department. In October 1971 Peter Montague left for a research post at the London Hospital and was replaced by Gareth Janes, Ph.D. Also that year Ran Salter joined as a Junior technician (at that point there were 8 technicians, but the number rose to 10 in 1972). At the end of the 1971-72 session the number of research students had increased (24) while the number of undergraduates in biology stabilised at 76. Thus Laboratory 3 (Ground Floor East) was changed from undergraduate teaching to research. By October 1972 the Primate Unit had been disbanded and John Napier had left us. Stella Rogers and Brian Gardiner and his research students moved into the Old Coach House which was also used to accommodate field equipment as well as providing the Department with an excellent seminar room. That October also saw the appointment of Dr Alan Ebringer, an immunologist. Alan was to be equally shared between Biology, Biochemistry and Microbiology although for administrative purposes listed under Biochemistry. That same year (1972) Gwen Turner joined us, as Departmental secretary a post she held for the next ten years. 1972 was also the year after the Murray Report, which included a proposal that several of the smaller colleges including Queen Elizabeth should undergo "same kind of amalgamation". There is little doubt that this proposal (put forward at a time when "big" was considered beautiful) influenced all future deliberations and represented the first nail in the coffin of Q.E.C.

In 1973 Jack Edelman was appointed Director of Research at Rank Hovis MacDougall Ltd. He was replaced in January 1974 by Peter Gahan, Ph.D. from the Memorial University of Newfoundland. Also in 1974, Rosemary Reynolds (now Salter) joined us as a junior technician, while in April Vic Newbury left and was succeeded as Chief Technician by Clive Daws who, apart from 3 months at University College in 1982, has been with us ever since. That summer (1974) saw a Biological Society visit to Ibadan in which 9 undergraduates (plus

Alan Brafield) carried out fieldwork in conjunction with an outstation of the Centre for Overseas Pest Research.

By 1975 the research output of the Department was increasing by leaps and bounds and the number of publications rose from 28 in 1975 to 35 in 1976. Despite the national economic crisis of 1976-77 the number of biology students rose once more to 80 (it reached 81 in 1972-73, its highest number) and we secured £37,899 in research grants. In 1978 we obtained £67,255 and in 1979 £157,760 (mainly due to Mike Black).

In October 1977 Stella Rogers left for Seale Hayne College, Devon after 20 years in the Department and was replaced by Michael Peel, Ph.D. That session Dr John Patterson (Queen Mary College) joined us on a temporary lectureship, filling in for Garth Chapman who was Acting Principal from October 1977 to March 1978. Later in 1978 two new visiting Professors were created, Jack Edelman and Dr R.L. Taylor (such offices were usually held for a 3 year term).

At the end of 1979 Garth Chapman relinquished the role of Head of Department and was succeeded by Peter Gahan. A very convivial party was held at the Zoological Society's headquarters to mark this occasion. Sadly, in 1979, financial stringencies and changes in the College resulted in our giving up the Old Coach House to the Student's Union.

In 1980, following the U.G.C's letter of 1st July 1980 on target student numbers, the College attempted to merge with Imperial College. However, this venture came to nought and at the beginning of 1982 (when our Court grant had been cut by 20%) we held informal discussions at the Departmental level with King's College at the time when the latter had called off their intended merger with Bedford College. The consequence of these initial discussions will be the merger in August 1985 of King's, Queen Elizabeth and Chelsea, and the amalgamation of King's Zoology and Plant Sciences Departments with the Q.E.C. Biology Department (and three people from Chelsea) to form a single, enlarged Biology Department.

At the end of the 1981/82 session Garth Chapman's retirement was marked by another splendid Departmental party (organised by Mike Llewellyn) in the Linnean Society rooms. That session also saw the retirement of Joyce Rigby after 25 years devoted service. The number of staff went down to 11 although on the credit side Dr Andrew Sincock joined us as a research visitor, financed by Imperial Cancer Research.

Our meagre staff list was further depleted in 1983 with the transfer of John Vaughan to Food Science and Nutrition. Nevertheless, despite fewer staff and technicians we secured some £306,056 in research grants in 1983 and our Departmental current account reached £18,000 while our equipment grant topped £50,000. That year we also published 37 papers and in the following year (1983/84) the number rose to 42.

In the final session (1984/85) the Biology Department comprises 10 staff, 7 technicians, 1 secretary, 1 visiting fellow, 6 research assistants, 3 research technicians and 20 research students.

To summarize this brief history: the Biology department was founded as a service department for Home Science in 1912. For its first 45 years it taught mainly Household and Social Science students and Sister Tutor students. The decision of the College to teach the General Honours Degree in 1957 laid the foundation for the subsequent expansion of the Department. In order to teach Parts I and II Zoology and Botany as well as continue with service teaching, far more staff were required. Consequently the number of staff rose from 4 to 13 during the twelve years the General Honours degree was taught. In these years (1956-68) the Department moved into a new, purpose-built building and its character changed from a teaching department to an active, research orientated one. The research with few exceptions has chiefly been concerned with animal and plant physiology.

One of the milestones in the Department's history was the introduction of the Course Unit system in 1966, allowing us to teach our own degree in Biology for the very first time. The new degree unified the Department, and over the next 5 years research output slowly and inexorably rose. This rise was accelerated in 1971 with the change to an alternating year teaching system for second and third year teaching.

The golden days of the Department stretched from 1965 to 1972 and ended with the uncertainty created by the Murray Report and the financial stringencies resulting from the reduction in public expenditure started in the late 1970's. Then came the encouragement offered by the Swinnerton Dyer Second Discussion Document of May 1981 and the final dashing of hopes in August 1981 when the monies allocated by the Court were reduced by 20%. The last few years have seen a wasting away of the Department with staff, technicians and student numbers all being cut. Finally the last two years have been filled with anxiety as to our future. Now this has been resolved we look forward to an enlarged Biology Department with anticipation.

All members of the Department look back with great pleasure on their years at QEC. It has been a very "happy" Department, with unusually friendly relations between lecturers, technicians and secretaries. This bonhomie has brought with it effective cooperation in both teaching and research, such that both have flourished to the great benefit of the students, whether undergraduates or postgraduates. The Biology Department is proud of its achievements and of the friendly atmosphere that is largely responsible for them. Our experience of real cooperation between plant and animal interests will be a valuable asset to the new, enlarged Department which is coming with the merger.