William Henry Harvey 1811-1866 and the tradition of systematic botany

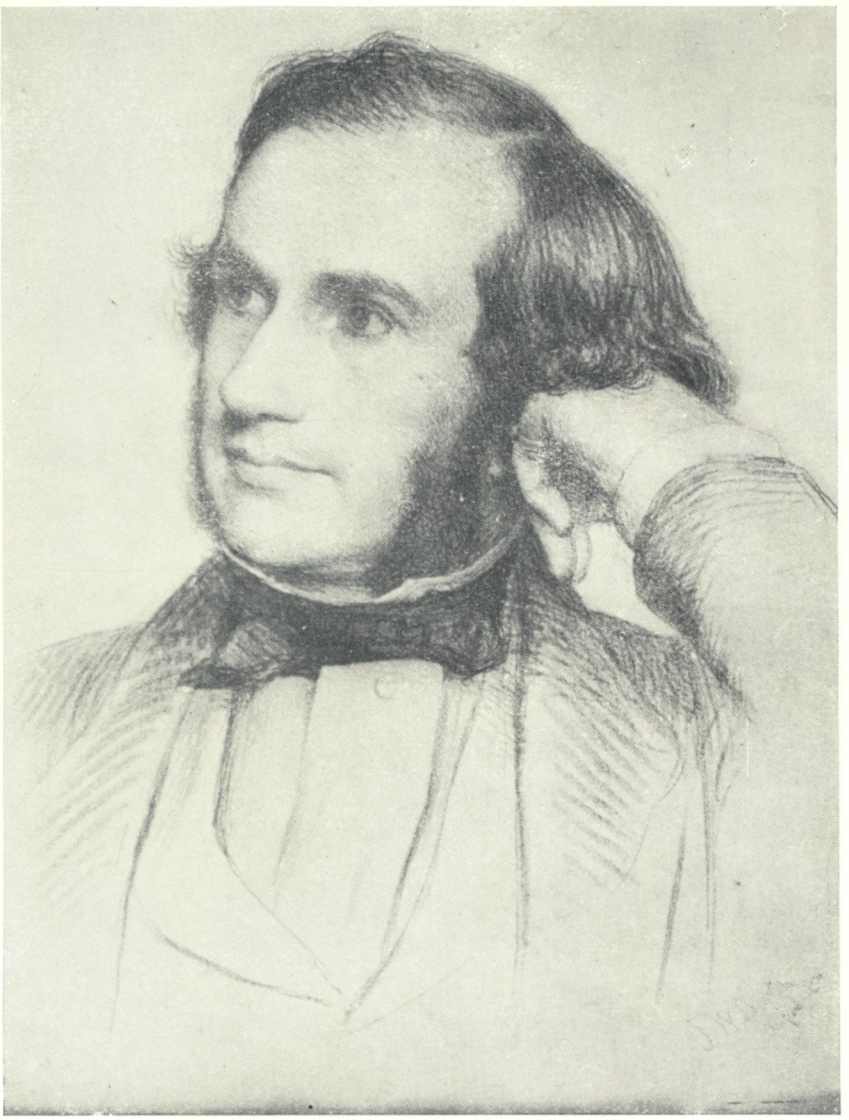
by D. A. Webb *

I

The Turkish government appears to be somewhat obsessed with the dangers of espionage, and until very recently large tracts of the country were forbidden to foreigners unless they had been granted special permits. Such permits were at times given rather grudgingly to journalists, mountaineers, archaeologists and even physical anthropologists; men such as these were a nuisance, but their activities were at least comprehensible to the official Turkish mind. But a botanist or zoologist who applied for permission to visit a restricted zone was invariably refused with some asperity. The government felt that its dignity was compromised by the mere request. That the man was an arrant spy was obvious, but even spies should play the game; and to attempt to carry out the espionage under such a flimsy and fantastic disguise could be nothing else than a calculated insult to the Turkish state. Grown men do not collect mosses or butterflies on Mount Ararat or the Gallipoli peninsula, except as a cloak for some nefarious enterprise, and that is an end of the matter.

This attitude, in a less extreme form, is widely prevalent in other circles, and not least among scientists. William Henry Harvey, whose death a hundred years ago we commemorate to-day, and whose devoted labours in this university for the last twenty-two years of his rather short life made the name of Trinity College familiar in many scientific centres where it was otherwise unknown, was a systematic botanist of the first rank. His name, however, is never heard when the roll of our great scholars of the nineteenth century is recited, and

* The Trinity Monday Memorial Discourse, 1966.



William Henry Harvey, University Professor of Botany 1856–66

From a drawing in the School of Botany.

indeed few members of the College outside the School of Botany have ever heard of him. So I shall attempt to show this morning not only that he laboured well at his task, but that his task was worth the labour, in spite of the fact that he brought about no revolution in his subject and would have been incapable of writing a controversial article for the *Observer*.

Harvey's life was relatively uneventful. He was born near Limerick in 1811, the eleventh and youngest child of a prosperous Quaker merchant of the city. The usual Victorian reticence surrounds biographers' accounts of his family circumstances, but it would appear that throughout his life Harvey found his bread and butter provided by the family resources; and his Quaker upbringing saw to it that his demands for jam were very modest. In fact the only considerations which spurred him into seeking a salaried post were his desire for foreign travel, and his realisation that without regular duties he might drift aimlessly.

From his earliest childhood he had a passion for natural history, and his cousins said jeeringly of him: 'William cares for nothing but weeds.' His ambitions were simply stated in a letter written at the age of 16. 'All I have a taste for is natural history, and that might possibly lead in days to come to a genus called *Harveya* and the letters F.L.S. after my name, and with that I shall be content. The utmost extent of my ambition would be to get a professorship of Natural History. Indeed, only I must do something I would rather be a quiet naturalist and not be paid for teaching that science into whose depths I earnestly desire to be admitted.' This is not the remark of a future Napoleon, nor even of a future Huxley, and it emphasises the point to which I will return later, that Harvey's success owed nothing to ambition, self-confidence, missionary zeal, or any of the other qualities which, with most men, must supplement mere talent if fame is to be achieved.

When William left school it was at first intended that he should be apprenticed to an apothecary in London, this being apparently the only recognised profession or trade which bore any relation to his tastes. But the idea of living in London was so repugnant to him that he begged off, and he became, instead, a sort of personal assistant and companion to his father in the business. It was a face-saving arrangement, and after three years of it he wrote sadly to a friend: 'It is pretty evident to my brothers now that I shall never make a merchant . . . I am sadly deficient in mercantile tact.' But it gave William a fair amount of leisure without the reproach and

disadvantages of complete idleness, while it gave to his father the company of his favourite son, who was specially dear to him since the death of his wife in 1831. The arrangement lasted for about six years, during which Harvey explored thoroughly the botanical riches of south-west Ireland. When he was twenty he found at Killarney a moss new to Ireland, and forwarded it to Sir William Hooker, the future director of Kew, at that time Regius Professor of Botany at Glasgow. The covering letter shows a characteristic blend of modesty and determination:

Respected friend,

Having lately discovered two new habitats for the beautiful *Hookeria laetevirens,* which I am anxious to have inserted in the forthcoming volume of the 'British Flora' I take the liberty of enclosing specimens, trusting to thy goodness to excuse the want of a personal introduction. [Here follow some technnical details.] Should thou think this letter worth replying to thou wilt address me as under, and permit me (again apologizing for taking the freedom to address thee) to subscribe myself,

Very respectfully thine
W. Henry Harvey.

Hooker sent a friendly reply, and the two were soon exchanging plants and information regularly, so that the effects of Harvey's isolation at Limerick from other scientists were mitigated. Hooker discerned the talents of the unknown young amateur, and gave him much-needed encouragement by telling him that he would soon be at 'the top of the algologists' and commissioning him to write some groups for the new edition of the *British Flora.* Next year Harvey writes blissfully: 'I rise every morning at five and work till breakfast, examining or describing Algae for the *British Flora.* If I do five species a day I think it good work; there is much to be compared and *corrected,* for I differ from Dr Hooker on many species. O impudence! O presumption!' Later the same year he managed to visit Glasgow and call on Hooker, and the personal contact consolidated a firm friendship between the two.

Two years later Harvey's father retired from his business and followed a married sister up to Dublin, bringing William with him. The change brought contact with other naturalists, but also some uneasiness from loss of his nominal job. 'My habits of business just now beginning to be formed', he writes, 'are nipt in the bud. I have lived in idleness long enough, and am growing fearfully old to be still without settlement. I am determined not to continue much longer so; for after all there is no old age so miserable and heartless

as that of a drone, who is a bore wherever he intrudes.' Six months later his father died suddenly, and Harvey found himself without ties and able to realise his long-cherished dream of enlarging his botanical knowledge by travel. But, as he wrote to Hooker, 'I am not rich enough to go touring round the world, spending here and there. If I go abroad it must be in a way not to return poorer, if I do not return richer'. Possibilities in New South Wales were discussed, but the opportunity came through a piece of patronage dispensed by Spring-Rice, a friend of the family. Just before the whig government fell he nominated Harvey for the post of Colonial Treasurer at Capetown. But by one of those legendary errors in which the civil service of the nineteenth century seemed to specialise, the patent was made out in the name of his elder brother Joseph, and the fall of the government made it impossible to put things right. It was decided, however, that William should accompany Joseph, once more as unofficial and personal assistant. But Joseph's health broke down almost immediately on his arrival, and he died six months later; the reversion of the appointment to William, who had been serving as his brother's deputy, followed as a matter of course, and he spent six or seven years at Capetown broken by leave of absence for two visits home. Here he laid the foundations of one of his major works, the *Flora Capensis,* he collected and observed a vast quantity of plants, he made friends with all the local naturalists, who continued to supply him with specimens later, he completed a popular book on Irish seaweeds, and presumably, in the intervals, he carried out the duties of his official post, though in this connexion he suggests that instead of Her Majesty's 'Treasurer-General' he should more appropriately be called 'Pleasurer-General'.

At the end of 1841, when Harvey was thirty, he, in his turn, was laid low by illness. It appears to have been the first onset of the tuberculosis which ran like a scourge through his family and was to kill him at the age of fifty-five. He returned to England, and later to Ireland, and made a slow convalescence, during which he engaged in rather desultory botanising. In 1843 he settled down in the old family home at Limerick, and, *faute de mieux,* once more tried his hand at the family business. But within months a new horizon had opened. William Allman, Professor of Botany in Trinity College, announced his retirement in 1844, and as Coulter, the Curator of the Herbarium, had died a few months earlier, the Board, anxious as always to effect a judicious economy, advertised the two posts as tenable by a single person. The combined post was exactly suited to

Harvey's needs. The professorship would give him an income and status, the curatorship a base from which to carry on his work. He wrote playfully to a friend: 'I have made a proposal to a lady and I am taken under consideration. She is not over young, but she has money, and this will smooth many a wrinkle and colour with carmine the yellowest cheek. But the respectability of the connexion, and her heing addicted to Botany are what have particularly won my affections, and made me enter the lists of her admirers. She lives in Dublin and has a good house of her own in College Green, with plenty of accommodation for lodgers. Her principal income is now derived from estates in various parts of Ireland, which she has come into by inheritance.'

To another friend he writes more seriously: 'To the combined office a moderate salary and comfortable College rooms are attached. It is an old bachelor place, and would in many ways suit me very well.' He then adds something which will rouse an echo in many breasts: 'The only thing on the face of it disagreeable is the *lecturing*.' Harvey, however, was not, like the rest of us, merely lazy; he was afraid of his shyness, which made speaking to strangers difficult for him.

Harvey was far better qualified than any man in Ireland to fill the post. The Chair of Botany, however, belonged to the Medical School, and had become enmeshed in the complex legislation which had grown up around the will of Sir Patrick Dun. It was clearly laid down that the professor must be a doctor of medicine. There was little difficulty in securing an honorary M.D. for Harvey, and this was duly conferred. But the Board, prompted no doubt by the supporters of the rival candidate, suddenly developed scruples, and elected George James Allman (no relative, apparently, of his predecessor), a genuine medical doctor and a distinguished zoologist, but with no botanical qualifications. Harvey found himself excluded from the professorship for the extraordinary reason that he was merely a botanist and nothing else. However, a reasonable compromise was arrived at. Allman, who did not want the responsibility of the herbarium, since he was anxious to continue his zoological researches, surrendered £100 a year from his salary, the Board added another £50, and Harvey was installed as Curator of the Herbarium without any teaching duties. He concealed any mortification he may have felt, and only a few weeks later was chortling because a Hungarian correspondent had addressed him as *Spectabilis et Doctissime Domine*. 'What more', he asked, 'could he say if I were an Alderman?'

In 1848, however, the Professorship of Botany of the Royal Dublin Society fell vacant, and Harvey decided to offer himself as a candidate, despite the necessity for a personal canvass among the members, a proceeding which he found humiliating and degrading. His chief motive appears to have been to obtain an official connexion with the garden at Glasnevin, which was then owned by the Society. Harvey was elected by a large majority, and found himself committed not only to demonstrations at Glasnevin, but also to what we would now call Adult Education lectures through the country. Finally, when Allman decided in 1856 to move to Glasgow, Harvey was appointed without any fuss to succeed him as University Professor of Botany, and he held both professorships until his death.

II

With these various posts, therefore, Harvey spent the remaining twenty-two years of his life in academic botany. He threw himself vigorously into the work. 'I rise at five a.m. or before it', he writes soon after appointment, 'and work till half-past eight at the Antarctic Algae. Directly after breakfast I start for the College, and do not leave it till five o'clock in the evening.' A few months later he is staying at Kew with the Hookers during the vacation. 'My time has been spent partly in arranging Sir William's unsettled bundles, and partly in selecting duplicates for the College Herbarium. Of these latter my pickings fill two large deal cases and one large hamper.' He then went down to Torquay to visit the redoubtable Mrs Griffiths, doyenne of British algologists, with whom he went out boating although she was seventy-six. Next year, back in Dublin: 'I am going on busily with the herbarium. At night I arrange ferns for the glue-woman; before breakfast I work at the Algae, and give the day to other plants, so that I have just sufficient variety to keep me from wearying.' A few years later: 'I am working at the rate of 3 hours a day at the Japanese Algae, and have made good progress.' Eventually, as the vigour of youth declines the enthusiasm gives place to weariness, but the work goes on. 'I am still in the midst of my huge purchase, which it will take a year or more to put into the herbarium, and besides I am preparing Volume II of *Flora Capensis* for the printer. The Cuban ferns must wait over till pressing things be stowed away.' Again: 'Here I sit like a turnspit roasting the meat, and when I am gone I suppose another dog will be put in my place. The herbarium will not be broken up. I am content, for I seem to

be working for some little purpose. I should just like to leave it in better order, to get through the arrears, and to return borrowed specimens. But I do not think *things in general* are worth the pains they cost. My views of personal fame are very different from what they were.' Eighteen months before his death, weakened by illness, he retains the same appetite for work, but is getting desperate: 'When can I lay aside any time for working on the *Manual*? At present I have on my table for daylight work these:— 1,500 odd species of Cape plants to be named and stowed away. Item, another parcel, 500 odd from Natal, ditto. Item, another 300 odd from Grahamstown, ditto. The above accumulated in my holiday, besides numerous smaller parcels. And now I hear that the next steamer from the Cape will bring the Colonial Herbarium to be "verified" and put in order. Then after Christmas I have to draw fifty lithographs for *Thesaurus Capensis*, and no saying what else, and then the lectures come on in April, and then, and then, and then . . .'

This laborious and somewhat monotonous routine was, however, broken by two notable voyages which Harvey greatly enjoyed, which gave him new fields for work, and from which he brought back much material to enrich the herbarium. The first was to the United States, where he had been invited to give a course of lectures at Cambridge, Massachusetts. Having spent the autumn at this, and having made a firm friend of Asa Gray, the most distinguished American botanist of his day, Harvey travelled south after Christmas through the Carolinas to Florida, where he collected algae assiduously. It was, I believe, on this tour that he acquired the seeds of the Oregon maples which dominate the Library Square; certainly they must have been planted within a few years of 1850, the date of his return. His second voyage was more ambitious. The Board was far-sighted enough to realise that travel to enrich the herbarium was a reasonable occupation for its curator, and gave him three years leave of absence to visit the southern hemisphere. He spent nearly half this time in Australia, and the remainder in Ceylon, Tasmania, Fiji and Tonga, as well, of course, as many tedious weeks on the ocean out of sight of the vegetation which he loved. The visit to the South Sea Islands was the realisation of a boyhood dream. It was not without a spice of adventure, as cannibalism had by no means been completely extirpated in Fiji at this time. His guide on one of the islands, who gave him excellent service in return for a fourpenny knife, was called Koroe, and Harvey inquired what it meant. 'I was told that it was a very honourable title, something equivalent to a C.B. in

England, and only given to a person who had committed at least 5 murders.'

Although he lived a bachelor life in College, Harvey depended much on the company of one of his sisters who lived in Dublin, and her death in 1857 seems to have left him rather forlorn. Four years later, at the age of fifty, he married a childhood friend from Limerick. Only a few weeks after the wedding Harvey had a severe haemorrhage of the lungs, and although he had thereafter periods of full activity the disease steadily undermined his strength; the ups became shorter and the downs more frequent. February, 1866, saw another serious haemorrhage, and as soon as he was fit to travel he went to Torquay. But the mild airs of Devonshire could do nothing for him, and he died there peacefully in May.

One other aspect of Harvey's life must be mentioned before I turn to his work. At the age of thirty-five, soon after his appointment to the Curatorship of the Herbarium, he was received into the Church of Ireland. It would be tempting to explain this as an accommodation to an institution which was then closely linked with the established church. But with a man of Harvey's innocence and honesty such a theory is untenable. He was, both before and after the change, a very religious man, and the step was taken only after some hesitation. He retained what was, for those days, a remarkably ecumenical outlook, and on the voyage out to Australia he amused himself by writing a dialogue in which the arguments for his old faith and his new were pitted against each other. At the request of his friends he published it a few years later under the title of *Charles and Josiah, or friendly conversations between a churchman and a Quaker*. Charles has, on the whole, the best of the argument, but Josiah's case is skilfully and sympathetically presented, and the disputants end by agreeing to differ, while rejoicing that they have so much common ground. It strikes a refreshing note in a decade racked by the controversies of the Gorham judgment and the Ecclesiastical Titles Bill.

Harvey possessed that happy type of temperament and character which makes no enemies. We need make little allowance for obituarist's licence when we read what Asa Gray wrote of him in an American journal shortly after his death: 'He was a keen observer and a capital describer. He investigated accurately, worked easily and readily with microscope, pencil, and pen, wrote perspicuously, and where the subject permitted, with captivating grace; affording, in his lighter productions, mere glimpses of the warm and poetical

imagination, delicate humour, refined feeling, and sincere goodness which were charmingly revealed in intimate intercourse and correspondence, and which won the admiration and the love of all who knew him well. Handsome in person, gentle and fascinating in manners, genial and warm-hearted but of very retiring disposition, simple in his tastes and unaffectedly devout, it is not surprising that he attracted friends wherever he went, so that his death will be sensibly felt on every continent and in the islands of the sea.'

III

So much for the man; what of his work? Harvey wrote a fair number of articles and contributions to joint publications, as well as two popular hand-books, but his fame rested in his lifetime and rests to-day on the substantial volumes covering his two main fields of activity—the seaweeds of the world, and the flowering plants of South Africa. They are for the most part massive books with massive titles—*Phycologia Britannica, Nereis Australis, Thesaurus Capensis,* and so on—but nearly all are enlivened by coloured lithographic plates prepared by Harvey himself. These exhibit no great artistic sensitivity, but they are cleanly and accurately executed, and they show, besides the general form, as much of the detailed anatomy as could be ascertained by the rather primitive microscopes of his day—for Harvey died before the introduction of the apochromatic lens and the Abbé condenser. There are four volumes on the seaweeds of the British Isles, five on those of Australia, one on other parts of the southern hemisphere, and one on North America. All are valuable for reference to-day, and the *Phycologia Britannica,* although the lapse of 120 years has rendered it very seriously out of date, is still the best book for a student learning to name his seaweeds, and is sought on the second-hand market not, like most illustrated works of its period, as a connoisseur's piece, but as a working manual.

The *Flora Capensis* stands rather apart from his other works. It was, from the start, a joint publication, his fellow-author being Sonder of Hamburg. Harvey, however, did the final editing and saw the work through the press. Its publication was subsidised by the government of Cape Colony, and its early volumes bear what must, I think, be a unique imprint—Dublin and Capetown. Three volumes, which covered about a third of the total flora, had been published at the time of Harvey's death, and the vital part which he had played in its production can be seen by the fact that nobody could be found

to replace him, and as Sonder was unwilling to continue the work by himself the project languished for thirty years. Eventually it was taken up by Kew, and the remaining volumes appeared at various dates from 1896 to 1925.

Flora Capensis is a severely technical work, and is not illustrated, but Harvey brought out a parallel production, *Thesaurus Capensis,* in which interesting plants from the Cape are described, discussed and illustrated. This ran to two volumes, with 100 plates.

In his twenty-two years at Trinity College Harvey prepared and published almost 900 lithographic plates—an average of nearly one a week. Most of them are of quarto size, and with several figures on the plate. This achievement, in addition to the work of collecting, examining, dissecting, comparing, reading, corresponding, writing and proof-correcting which the text required, as well as the sorting, labelling and filing not only of his own specimens but of the many others which he acquired, such an achievement should make even the most complacent of us hesitate in his self-congratulation. It seems that there are two distinct reasons which prevent me, or any professor of botany, from emulating Harvey's output. The first is that we are, by Victorian standards, lazy. When all allowance has been made for the coal-fires in front of which they sat, without having to carry up the coals, and the substantial meals which appeared before them at regular intervals, without effort on their part—when all allowance for this has been made, it seems certain that scholars 100 years ago worked harder than most of them do now. 'I rise every morning at five, and work till breakfast, examining and describing Algae . . .' If we did this our friends or our family would soon put a stop to it. Harvey was industrious, even by the standards of his age, but he was not exceptional—Bentham, Hooker, Huxley, even Darwin in spite of his hypochondria, all of them worked with an energy and tenacity that is very rare to-day, and I am sure that the same is true in other branches of scholarship. Perhaps the last representative of the tradition to be seen here was Louis Claude Purser, who maintained that Christmas day was the best day of the year to work in your rooms: nobody came to disturb you.

The second reason for our limited achievement is that we are distracted by a hundred other occupations, which we assure ourselves are duties. A professor of botany to-day, by the time he has attended his univerity committees, negotiated grants for his research students, passed the plans for his new buildings, interviewed applicants for a technician's post, composed a dispute between two of his staff,

arranged next term's time-table, filled up international, national and university questionnaires, participated in the latest campaign for nature conservation, found someone to take his place on the national committee for biology, given a lecture at a course for biology teachers, reviewed a book or two, written the script for his television talk and attended his international conference in Seattle or Bangkok, will not, after all this, have much leisure for the preparation of lithographic plates; nor, indeed is he likely to have the skill and patience. It is these things, far more than the claims of the kitchen sink or the country cottage, which militate to-day against a sustained career of scholarship. 'Work', says Bertrand Russell, 'is broadly speaking of two kinds: moving pieces of matter relative to the earth's surface, which is usually unpleasant and badly paid, and directing other people who are moving pieces of matter relative to the earth's surface, which is usually pleasanter and well paid.' It is almost equally true to say that academic work is of two kinds: in the lower echelons one teaches and carries out research, for a low salary; later on for a higher salary one organises other people in teaching and carrying out research. It is not clear to me that this is an improvement on the arrangement which prevailed in Harvey's day. 'At night I arrange ferns for the glue-woman; before breakfast I work on the Algae, and give the day to other plants.' It is not a regime which suits everyone, but it is a pity that the scales should be as heavily weighted against it as they are to-day.

IV

Well, you may say, you have shown that Harvey was a nice man who worked hard in a specialised field. But was he a great man? Has his work any permanent significance? Did it open out new channels of thought, like the work of his great contemporaries Mendel or Darwin, Nägeli or Hofmeister?

The answer to this last question is No. Harvey was neither a pioneer nor a revolutionary; he possessed no talent for daring speculation nor for imaginative synthesis. But I do not think that for this reason he forfeits all claim to greatness. Genius, we are often told, is an infinite capacity for taking pains. I was surprised, when I went to verify the quotation, that no well-known writer used these exact words, but Buffon said what amounts to the same thing and Carlyle appropriated the idea without acknowledgment and, with a slight twist, gave it wider circulation. The trouble is, however, that the

word has rather changed its meaning, and today we do not really accept this definition. Genius for most of us is a divine afflatus wafted in from outside ourselves. We do not try to model ourselves on Darwin or on Rowan Hamilton because there is no way of doing so. We cannot by taking thought add that kind of cubit to our intellectual stature. But genius of this type is rare, and if we were confined to celebrating it we should find it hard to fill our Trinity Mondays. We are all too conscious nowadays of the newspaper headlines; there is a tacit assumption in too much of our talk that scientific research is justified only by its most sensational results. Systematic biology does not aspire to these; it gives no lottery ticket for a grave in Westminster Abbey. The services of the systematic biologist are like those of the maker of maps or dictionaries; and there have been great explorers and great lexicographers. New continents no longer await discovery, but he whose knowledge makes travel safer and easier in Ethiopia or New Guinea than it has been deserves as well of humanity as did Columbus or Cook. So it is with biology. The jungle of the organic world is of a terrifying complexity, and our maps of it are still sadly incomplete. To complete them needs not only diligence, but also aptitude and more than one kind of skill. Nor is the type of work needed for their completion one which the genius despises. We hear much of Hamilton's walk to College, the 'closing of the electric circuit' and the scratching of the formula on the canal bridge; we hear less of the hours of calculation at a table in Dunsink. We think of Darwin brooding over Malthus's *Essay,* and of the evolutionary theories germinating in his mind as he watched the finches in the Galopagos Islands; we forget the years of patient dissection which were devoted to the production of his monograph on the barnacles.

How then shall we describe the mental quality of a man who excels in this work, who can combine patience and insight in such a way as to reduce chaos to order and throw light into dark places? If he is not a genius, what is he? I am afraid that there is no word, and I can only describe his quality as scholarly excellence. We are all weary of arguments as to the relative claims of teaching and research in the modern university—so weary that perhaps we forget that the original idea of a university was neither teaching nor research. It was scholarship. A university was, till quite recently, primarily a body of learned men who lived together so that their several learnings might combine into something greater, and who had as their primary duty the cultivation of scholarship—the keeping alight of the flame

of learning, and the handing down of the torch to the next generation. And from this idea of scholarship there flowed, as natural consequences, teaching and research. It is natural for scholars to wish to enlarge the bounds of their knowledge; it is natural for them to wish to share their secrets with others. But to the true scholar new knowledge is neither better nor worse than old. In a few subjects there is so much new knowledge and so little old that the latter can be rightly forgotten, at least for much of the time. But that is not so of all, and a subject in which old knowledge is important is no less respectable intellectually than one in which it is not. In systematic biology there is much important old knowledge and much important new knowledge, and the skill of the scholar lies in being able to master both and to select from them the materials for a new synthesis which will serve as a more accurate map of one part of the jungle than any which has gone before. And as a map must be legible as well as accurate, so must his work be such that it can be mastered without a lifetime of study, and can be used as a foundation stone, or at least as a quarry, by his successor when his turn to build comes around. I gave as the title of my lecture 'Harvey and the tradition of systematic botany', and it is on this note of tradition that I wish to end.

In all subjects an established tradition in a university department is of some value, but there are some in which it is of particular importance. Systematic biology is one of these, for it depends on collections constantly added to and well maintained, and literature bought when it is current, to save the interminable and expensive combing of the second-hand market or the inconvenience of microfilms. Harvey was very conscious of this, and it was the vision of continuity with his successors that sustained him through hours of tedium. 'Here I sit like a turnspit roasting the meat, and when I am gone I suppose another dog will be put in my place.' Or we may prefer the more lofty language of the prayer which asks that 'as we have entered into the labours of others [we may strive] so to labour that in their turn other men may enter into ours'. The hours which Harvey stole from the books which brought him fame and gave to the drudgery of mounting, sorting and filing of specimens were not wasted; they are the labours into which I and many others have entered, and the consciousness of this inspires me, at least now and then, to do the same for those who will come after me. I should, in this connexion, pay tribute also to Harvey's two successors: Wright and Dixon. Wright was a lesser man than Harvey, but he kept up the work according to his lights, and he gave to the College his

first-class library of systematic botany, which puts us far ahead, in this field, of many much wealthier departments across the water. Dixon's interests, of course, lay very far from systematics, and he used at times to refer to the herbarium as 'hay'. But it was he who saw that this hay was, for the first time, suitably housed in a special building; and he devoted a large part of two years to installing it there—a peculiarly selfless piece of work, which was inspired only by a consciousness of the value of this tradition, although he himself stood outside it. It is thanks to all these men that I found here a base for my share in the editing and writing of *Flora Europaea* better than that which any university in Britain save Oxford, Cambridge and Edinburgh could provide, and not greatly inferior to any of these.

Harvey declared, as we have seen, that his ambition was to be a professor of natural history, a Fellow of the Linnean Society, and to see a genus of plants called after him. All these he realised and much more. The name *Harveya* was given by his friend Hooker to a plant sent home by Harvey from South Africa when he was only twenty-six. But if we look at an index of the Algae we find literally dozens of *harveyis, harveyanas* and *harveyellas,* and these names have been given not only by Englishmen, but by Frenchmen, Swedes and Americans. I think it is true to say that this fame came because he did not seek it, but just plugged on steadily with his job. He realised early the nature of his talents and his limitations; he used the former to the limit of his powers; and he did this, in the opinion of his contemporaries, better than anyone else in the world. I think that this amounts to greatness. Nor did his fame end with his death. There are many men in Capetown or Pretoria, in Liverpool or Lund, in Adelaide or Berkeley—yes, even in Berkeley, California—who, when the name of T.C.D. is mentioned will say: 'Ah, that is where the Harvey collections are. How I wish we had them here!'