

BIOGRAPHICAL MEMOIRS

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David J. Mabberley

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H. J. Corner

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John Corner was one of the most colourful, and controversial, biologists of the century. Edred John Henry Corner was born on 12 January 1906 at 37 Harley Street, London, W.1., son of Edred Moss Corner M.A., M.B., M.C., F.R.C.S. (d. 1950), surgeon and surgical author, and his wife Henrietta, *née* Henderson (d. 1966).

THE CORNER FAMILY

Edred Moss Corner was born in Yorkshire; the Corner family can be traced back to fifteenth-century Whitby. John Corner's uncle, Frank Corner, was a physician, anthropologist and archaeologist; a distant cousin, William Corner, owned the personal diaries of Captain James Cook (these were taken to Australia by Sylvia Corner when she migrated and are now in the Cook Museum, Melbourne). John Corner had two sisters, the elder being Stephanie, the wife of Antony Hurd, MP, and the mother of Douglas Hurd MP, Home Secretary and Foreign Secretary in the recent Conservative government.

EARLY YEARS

In about 1911 John Corner suffered appendicitis and developed a stammer that grew worse: it never really left him, despite elocution lessons from Courtland McMahon of Wimpole Street, London. Corner believed that it was the result of continual scoldings from his parents, who were so distant and cold that he even considered running away. From 1912 to 1915, he

attended Arnold House, St John's Wood, London, a day school where he began Latin and then Greek. From 1916 to 1919 he was at Highfield School, Liphook, Hertfordshire, a boarding school, where he was very homesick at first, but ended up as school champion, winning all the athletic sports. There he concentrated on classics and mathematics but a mild form of polio stopped him as an athlete. In 1919 he was sent to Rugby School, where he soon became lifelong friends with Edgar Barton Worthington, the zoologist. About this time his family moved to Woodlands Park, Great Missenden, Buckinghamshire, 'a paradise for a young botanist', as Corner wrote.

Beginning with classics at Rugby, Corner became bored and moved to the science side. He began climbing trees in earnest and from 1922–23 was a school prefect. He was fullback in the school rugby XV and in the gym VIII, but gave up the Officers' Training Corps as 'detestable', which caused much trouble, particularly when, to the disgust of senior masters, he went on botanical excursions instead. In his first term he collected 'toadstools' and, with his father, duly engrossed too, later collected more on Dartmoor. His father got in touch with Dr Somerville Hastings, a doctor, and Labour MP for Reading; through him they met the mycologist John Ramsbottom (1885–1974) and other members of the staff of the Department of Botany in what is now the Natural History Museum.

Corner's father joined the British Mycological Society and took the fourteen-year-old John on one of the Society's forays, to Keswick in 1922. Here Corner met the barrister-mycologist Carleton Rea (1861–1946) and Professor A.H.R. Buller, F.R.S. Others on the excursion were to become Sir Frank Engledow (F.R.S. 1946), Professor of Agriculture at Cambridge, and Sir Samuel Wadham, Director of Agriculture in Australia.

UNIVERSITY EDUCATION

Corner won a scholarship to Sidney Sussex College, Cambridge, his father's old college, going up in 1923, but 'caused much odium by refusing to play rugby in the Freshmen's Match'. He went to Vienna in the long vacation of 1924 to learn, at his father's suggestion, German; he was introduced to Heinrich Handel-Mazzetti (1882–1940) and spent two weeks in Hungary. He travelled to Switzerland with Worthington in the long vacation of 1925 and to Gibraltar, southern Spain and Tangiers in 1926.

Corner took Firsts in Part I of the Tripos in 1925 and Part II in 1926; he won the Frank Smart Prize in 1927 and was awarded the Frank Smart Studentship in botany in 1928. So appalled was he at his ignorance of so much of science, he even contemplated suicide, but his parents' potential grief swayed him to persist with his studies. He wrote that he decided then to devote his life to furthering knowledge in the best way that he could; from that time onwards he drove himself relentlessly, until his eyesight (shortsightedness having been diagnosed as late as 1920) forbade further research.

With Conrad Waddington, F.R.S., as landlord, Corner lodged at 27 Bateman Street, near the University Botanic Garden. He took up mycology in earnest and led mycological excursions from the Botany School: his manuscript on the fungi of Cambridgeshire survives in the library of what is now the Department of Plant Sciences, Cambridge. For eighteen months, Corner was a research student on a 'dreary subject on parasitism of mildews given by F.T. Brooks [1882–1952]' but taught himself to draw and did his own research on Discomycetes, leading to five published papers. He became friends with Harry (later Sir

Harry) Godwin (F.R.S. 1945), and started visiting Arthur Harry Church, F.R.S. (1865–1937), in Oxford.

At Rugby, Corner had read Church's *Thalassiophyta*, borrowed from Richard Weatherall, a new schoolmaster fresh from Cambridge, and bought his own in 1921; this copy, which accompanied Corner around the world, has survived. Church's thesis, beginning 'The beginnings of Botany are in the sea...', was that the land had been colonized by massive marine algae, not freshwater filaments, and on this foundation he built a picture of the evolution of all terrestrial vegetation. As an undergraduate, Corner read all that Church had written. The demonstrator in the Botany School at Cambridge, Sam (later Sir Samuel) Wadham, lectured on Phaeophyceae as the basis for understanding *Thalassiophyta*. Professor A.C. (later Sir Albert) Seward, F.R.S., was at heart a supporter too, but the lecturer in mycology, Brooks, who was to become professor, was against both Seward and Church.

Harry Godwin, also to become professor, encouraged Corner to present Church's work in a paper read to the Botany Club; the manuscript of 'Cambridge thoughts on Oxford botany' is preserved in the library of the Department of Plant Sciences in Cambridge. As Corner was concluding, Brooks stood up and walked out and would not speak to him for several weeks. In 1927, two Oxford graduates, Robert Leach and E.B. Martyn, later to become well known for their work on diseases of tropical plants, came to Cambridge for a course in plant pathology under Brooks, who had been Government Mycologist in the Federated Malay States, in preparation for their appointment in the Colonial Agricultural Service; it was they who were to take Corner to see Church.

Church was pleased at the possibility of a disciple and so Corner was invited again. From the new family home at Stratton End, Beaconsfield, Corner would drive over to Oxford once or twice each vacation 'to converse with the master'. But Corner could contribute too, because Church had little first-hand knowledge of the larger fungi, so Corner brought him specimens to examine and preserve. On receiving some good material of *Clavaria*, Church wrote, on a surviving postcard of 29 September 1928, 'I had seen nothing like it before'.

Of these meetings Corner wrote in 1981:

After the dreary botanical teaching at Cambridge, these visits to Oxford were a joy. *Thalassiophyta* prompted the [i.e. Corner's] work on discomycetes; it led to *Clavaria* as the most seaweed-like of basidiomycetes, and to *Thelephora* as the clavarioid which reveals the deterioration into the bracket and resupinate form, not primitive as so often held. *Clavulina cartilaginea* and *C. gigartinoides* in the dense forest of Pahang, *Thelephora borneensis*, and *Paraphelaria* of the Solomon Islands have reminded me on distant occasions of the one who taught me botany. The reason is very simple. Whereas most schools discard most plants as unnecessary for orthodox instruction, thereby strangling botany, Church delighted in all and restored, even to the meanest, a fascination.

SINGAPORE

Corner believed his stammer precluded him from any lecturing post, so he applied for a position in the Colonial Service and left Cambridge without having registered for a PhD. He had met R.E. Holtum (1895–1990), who was looking for a mycologist at the Botanical Gardens in Singapore and so, in 1929, with an annual salary of £400, he was appointed Assistant Director of the Gardens, a post he held until 1946. Before Corner left, Church advised him, 'Note everything! Draw everything! Photograph everything!'.

Corner sailed east from Birkenhead on the SS *Antenor* and saw tropical vegetation for the first time on Penang Island, off the Malay Peninsula. Up until 1941, he was to explore extensively in the Malay Peninsula: in 1931 he also visited Sumatra, and, in 1938, the Puget Sound Oceanographic Station on Vancouver Island, Canada. In Singapore, Corner contracted whooping cough and for three weeks was on the verge of dying from asphyxiation—its effects lingered throughout the rest of his life—and then he caught typhus. He continued to correspond with Church, although Church's letters are now lost, and his last visit to him was on his leave in 1933–34. In 1938–39, Church's daughter entrusted Corner with many of Church's papers and other manuscripts, all of which were presented to the Bodleian Library in Oxford in 1981.

In contrast with his later mycological work, Corner's first papers were largely on microfungi, notably practical matters such as the identity of pathogens of rubber, but also on the evolution of the ascocarp and marginal growth of the apothecium. He was also probably one of the first to demonstrate the intimate association between fungi and bryophytes. By 1931, though, he had to leave mycology as his hobby, to study and record the Malayan forest as it was being felled. The value of the Gardens was being questioned and to show their worth Corner set about a popular book that was to be his masterly *Wayside trees of Malaya*, which has now gone through three editions. He imitated the approach of Edward Step's *Wayside and woodland trees*. It was intended that the work would take two years; it took six, and from 1934 to 1938 Corner made 'tree' journeys in the Peninsula with Hassan, a tree-climber of Mawai, Johore. During the course of the work, many new species of trees and other plants were discovered, some of them to be named after him (see Eponymy below). His herbarium specimens were deposited in the Singapore herbarium, with duplicates widely distributed, for example to the Royal Botanic Gardens, Kew.

It was necessary to look in detail at the taxonomy of various groups, published as separate papers before the book itself; Corner was astonished to find that so much was unknown about them. Important in his later career was the interest that he took in figs (*Ficus*, Moraceae), of which he published preparatory accounts of some of the Malayan species in 1933 and 1939. Corner illustrated the book with his own inimitable line drawings, which have since been 'lifted' for popular travel books, and a separate volume of photographs that he took himself with a Zeiss camera. On leave in England in 1938, he made arrangements for their printing with the Art Reproduction Co. in London. In the course of field work, Corner made many original ecological observations, some published many years later, notably on freshwater swamp forests (1976) and offshore islets (1985).

Despite his stammer, Corner taught botany to student teachers in the King Edward VII College of Medicine, Singapore. As explained in his book, *Botanical monkeys* (1992), he introduced coconut-collecting macaque monkeys to the Botanical Gardens as plant collectors. He also began the study of 'hyphal systems' in work on polypore fungi: indeed, he was collecting all kinds of macrofungi and illustrating them, often in watercolour.

On leave in 1934, Corner married, at Comberton, Cambridgeshire, Sheila Kavanagh, *née* Bailey, daughter of Dana Clark Bailey, history teacher of New York. Their son, John Kavanagh Corner, was born in Singapore in 1941. In 1939 Corner was transferred to the Food Supply Office and promoted to Food Supply Officer, but he was fired, apparently through some misunderstanding. He was also a lay superintendent at Tan Tock Song Hospital, Singapore. In about September 1941, at the insistence of the Governor, Sir Shenton Thomas, who knew of Corner because of *Wayside trees*, he became Food Production Officer.

In February 1942, Singapore was surrendered to invading Japanese forces; Corner's wife and son had been evacuated. Corner had been conscripted into the Singapore Volunteer Force, but a savage attack by one of his collecting monkeys disabled his right arm and he was invalided out. With other officials, he sought refuge in the Fullerton Building, where the Governor had established his office. Looting in the city was preceding the Japanese takeover and so the Governor acceded to Corner's request to carry a note to the Japanese authorities to preserve the scientific collections, particularly those in the Botanical Gardens and the Raffles Museum. Although the original pencil-written dispatch was lost in a fire at Sendai, Japan, in 1945, it has only recently come to light that the text of the note was published in a Japanese newspaper by Professor Hidezo Tanakadate in June 1942, confirming Corner's report of the episode, which has been doubted by some of Corner's critics.

A ship carrying Japanese technicians and officials had been sunk and the Japanese authorities therefore arranged to replace them with suitably qualified British people, who were therefore not to be interned. The Museum, Gardens and Library were run as a unit under Tanakadate: Corner became, with Holtum, a civil internee in the Gardens, where Professor Kwan Koriba (1882–1957) of Kyoto University was appointed Director. Corner's house in the Gardens had been looted, first by Australian troops and later by Gardens' labourers, but his scientific papers, including Church's manuscripts, and books, were tied up in parcels by the Japanese and sealed with Tanakadate's own seal. With the help of William Birtwistle (d. 1953), Director of Fisheries, the treasures, including books from law firms as well as the library and records of the Eastern Bureau of the League of Nations, were saved in the Museum for what has become the modern State of Singapore. Most other British Colonial servants were interned by the Japanese in disgusting conditions and, for many of them, despite Corner's considerable success in getting food supplies into their prison camp, resentment at the preferential treatment given to the Civil Internees was to become lifelong.

The Marquis Tokugawa, Civil Governor, was President of the Museum and Gardens, and he published booklets on edible plants and animals, with the aid of Corner doing the plants and Birtwistle the animals. Corner's stammer almost disappeared. From April 1943, he worked with Kwan Koriba on growth habits of Malayan trees; they went on Sunday excursions together. Corner kept Koriba's research notes and a draft paper that was eventually published in Singapore in 1958. Corner prepared a 'flora of Syonan' and did much work on leaf development, especially of palms. The internment gave him the opportunity for the elaboration of his Durian Theory (see below), which Corner outlined to Kwan Koriba in 1944, and initiated his study of the microscopic structure of seeds. These led on the one hand to his textbook *The life of plants* (1964), which was translated into French, German, Italian and Japanese, and on the other to his influential *Seeds of dicotyledons* (1976). At the end of hostilities, Colonel (later Sir Gilbert), Archey (d. 1974) was made Officer-in-Charge of Monuments, Fine Arts and Archives for the British Military Administration; Corner assisted him until November 1945, when he returned to England. They prevented the Gardens from becoming a military transport depot and the herbarium a barracks, the fate of both Peradeniya in Sri Lanka and Bogor in Java. Corner alleged that he refused to return to his post after his leave because he 'would not succumb to the belittlement of the scientific side' of the work of the Gardens.

SOUTH AMERICA

Joseph Needham, F.R.S. (1900–1995), held to have put the ‘S’ in UNESCO, working with its founding Director-General, Julian (later Sir Julian) Huxley, F.R.S., invited Corner to set up a field science office in Latin America. In 1947–48 Corner was Principal Field Scientific Officer (Latin America), UNESCO, stationed in Rio de Janeiro, and then, as Executive Secretary of the Hylean Amazon Project, UNESCO, at Manaus. His endeavour to set up a field institute failed, the leading Brazilian proponents being accused of compromising national security by setting up such an international institute. Corner travelled from Mexico to Bolivia and southern Brazil but for six months was in Amazonas. Although at odds with UNESCO headquarters in Paris, he wrote out the Durian Theory at Manaus.

The Durian Theory is an extension of the ideas of Church, carried through to the development of angiosperm vegetation. Faced with the range of tree morphology in a single monophyletic group, Corner asked the question, ‘Which came first?’, the stumpy little-branched form with big leaves (pachycaul, a word he coined) or the tall much-branched tree with slender twigs and small leaves (leptocaul); his argument hinges on the probability of the rising height of the angiosperm forest in taking over from other seed-plants, so that the pachycaul form is seen as primitive. The fundamental importance of the interaction of animals as pollinators and seed-dispersal agents in the success of the angiosperms led him to ponder whether the arillate form of seed, seen in a wide range of unrelated groups, with its ‘reward’ for dispersers, was primitive or advanced. He argued that the convergent evolution of such an elaboration of the seed, a third integument, developing in exactly the same way in monophyletic group after monophyletic group, was an unreasonable assertion, so he took the arillate seed, associated with a dehiscent fruit, as the primitive condition.

Such a ‘reward’ is in the seeds of the durian (*Durio zibethimus*), and when Corner gave a talk on his theory to the Cambridge Botany Club in 1946, Harry Godwin suggested it be called the Durian Theory—although the durian, with its notoriously smelly, but delicious, seeds, is a leptocaul tree.

From Corner’s consideration of tree architecture comes the associated notion of reduction of leaf-size and complexity from pinnate to simple, from many veins to few, from apical growth to intercalary growth, to give the range of form seen today. From seed studies comes the simplification of the aril, its loss and its functions being taken over by other tissues of seed or fruit, to give the range of form seen today. To Corner, the primitive angiosperm was something like a terrestrial *Victoria amazonica*, with large insect-pollinated flowers, arillate seeds taken by animals, and massive primary construction: massive stems, buds and leaves. It is of interest to note that recent theorists have come to similar conclusions on ‘palaeoherbs’ from different evidence. Moreover, although criticized in detail, there has yet to be a theory of the origin of angiosperm vegetation as all-embracing as the Durian Theory.

Crucial are Corner’s ideas on the coevolution of animals and plants and of ‘transference of function’, which are now today’s orthodoxy. It was the spur for looking at temperate groups of plants in the context of the tropical woody ones, notably the pachycaul; from it came general principles of plant construction, schematized by Hallé in France (the theory has been translated into French) and Oldeman in The Netherlands, and now known as Corner’s Rules. The unbranched palm-type of tree ‘architecture’ in Hallé and Oldeman’s scheme is known as Corner’s Model. A basis for understanding forest structure and leaf stratification generally followed through the work of Henry Horn in the USA.

CAMBRIDGE AGAIN

In 1949, Corner was appointed Lecturer in Taxonomy at the Botany School, Cambridge, where Brooks was by now professor. He kept up mycology as a hobby, and in 1959 was appointed Reader in Plant Taxonomy. Until 1973 he had a series of research students, almost all working on tropical angiosperm topics. His lectures, with the occasional stammer, were spellbinding, and student visits with him to the Botanic Garden and the University Library to see the treasures there were unforgettable; the lectures, like his writing, were original, iconoclastic and hugely entertaining.

At Cambridge, Corner built on his account of figs in *Wayside trees*, elaborating a classification of the genus *Ficus*, although his account of the Malesian species remains unpublished because he fell out with the editors of *Flora Malesiana*. Some of his type specimens are deposited in the Cambridge University herbarium. In concentrating on so large a genus, he saw clearly, as he did in his seed work, the ‘grades’ of classification and the importance of clades that underpin modern phylogenetic work. The seed work began with a study of Annonaceae in 1949, in which he found four integuments in some taxa, then Leguminosae in 1951. Over the ensuing years, he built up an impressive collection of seeds; he sectioned and drew them, studying the development of their integuments and thereby building on the work of Fritz Netolitzky (1875–1945). However, he completed only that on dicotyledons, his resulting book being *Seeds of dicotyledons* (1976), dedicated to the memory of Netolitzky.

In 1964 appeared his *The life of plants*, which elaborated Church’s and his theories on plant evolution for students and an enlightened general audience. It was a best-seller and used, once again, his own drawings and photographs. Shortly afterwards came *The natural history of palms*, building on his Malayan experiences and bringing forward the account of the group, which was not covered in *Wayside trees*. Although criticized by nit-picking specialists, it remains by far the most readable account of palm biology. Indeed, Corner’s written style is an attractive, almost seductive one, a literary style not welcomed by many scientific journals today. Nevertheless, parts of *The life of plants* are reprinted in Bernard Dixon’s *From creation to chaos—classic writings in science* (1989): here Corner rubs shoulders with Francis Bacon, Rachel Carson, Charles Darwin, Fred Hoyle, T.H. Huxley, Isaac Newton, Alfred Russel Wallace and H.G. Wells. Some of the best of his other writing is found in his chapter, ‘Evolution’, in *Contemporary botanical thought* (1961), and in his papers, ‘On thinking big’ (1967), ‘Prototypic organisms. XIII. Tropical trees’ (1975) and ‘The palm’ (1981). Among Corner’s writings outside botany, one of his excursions into anthropology, published in 1962, is memorable in arguing that the mace of regalia is the refined end of a sequence of plant artefacts from the wrenched-up sapling through a series of war-clubs. His paper dealing with many other aspects of modern society rooted in tropical-forest-living was not only thought-provoking but, like so much of his written work, entertaining.

In 1955 Corner was elected a Fellow of the Royal Society and, in 1958, was the Society’s delegate to the Darwin–Wallace Centenary in Singapore, travelling in Indonesia, Malaysia and across India. In 1961 he led Royal Society expeditions to North Borneo, taking the first photographs from the eastern summit of Mount Kinabalu. The Kinabalu National Park, a UNESCO World Heritage Site, was later established, although Corner’s pleas to save the mid-altitude forest were not heeded. In 1965, Corner led the Royal Society’s expedition to the Solomon Islands (where he contracted malaria) and, in that year, was appointed Professor of

Tropical Botany, becoming Emeritus Professor in 1974. He had been elected a Fellow of Sidney Sussex College in 1959 but resigned his fellowship in 1973, ostensibly over his refusal to agree to the college's becoming a mixed one.

In 1968, Corner was principal guest, in Sri Lanka, of the Ceylon Association for the Advancement of Science and, by special invitation, visited the Royal Society and Royal Geographical Society Mato Grosso Expedition in Brazil to decide on its continuance. As the first Royal Society Leverhulme Visiting Professor, he travelled to Indonesia but considered this a failure, leaving after two months for the Malay Peninsula, Sarawak and Sri Lanka. In 1983 he went to Japan to meet scientists who had been in Singapore during the Occupation, and visited the country again in 1989 when he also travelled in New Caledonia.

FAMILY AND RETIREMENT

Corner had two daughters. Stephanie Christine Corner was born in 1947 in Hanover, New Hampshire, USA, and Dorothy Lindsay Helga Corner was born in Essex in 1948; she was to marry the banker Piers von Simson, great-grandson of the first President of Germany. In June 1952, Corner and his wife divorced but he retained custody of his children. In April 1953 he married, at Cambridge, his daughters' nanny, Helga Dinesen (d. 1999), *née* Sondergaard, daughter of Dinus Larsen Sondergaard, farmer of Mors, Denmark.

In 1976, on the occasion of his seventieth birthday, a Festschrift, *Tropical botany* (published as *Gardens' Bulletin, Singapore* **19** (1977)), was prepared, largely by his former research students. In 1977 it was presented to him at Wadham College, Oxford, in the presence of many contributors and other guests including Church's daughter, Grace Grattan, and his old academic sparring partner, Professor C.G.G.J. van Steenis (1901–1986), *Rasamala* (to Corner's *Tualang*; they took the names of prominent Malesian trees in their correspondence) of the Rijksherbarium, Leiden, The Netherlands. A second Festschrift, marking his eighty-fifth birthday, was printed as *Botanische Jahrbucher* **113** (2/3) in 1991. A recent Flora Malesiana Symposium in Kuala Lumpur had a session in his honour. His house in the botanical gardens in Singapore is now a restaurant: The Cornerhouse.

Although still publishing on phanerogams, Corner in retirement returned in earnest to his first loves, the fungi, and generated an enormous number of controversial publications in mycology, over 2200 printed pages of them after the age of 75. He wrote monographs on agaricoid, boletoid, cantharelloid, clavarioid, theleporoid and polyporoid fungi. His developmental studies, as with seeds, were crucial: the sporing bodies of similar-looking fungi were shown to have been built up in quite different ways, resulting in his concept of 'hyphal systems', an important concept in understanding relationships. His studies of the basidium as a charged ampoule and the ontogeny of basidiospores are seen as fundamental. His mycological drawings and many of his collections are now in the Royal Botanic Garden Edinburgh with his mycological library, although some type specimens are in the Cambridge University herbarium and others in the National Fungus Collections, Beltsville, Maryland, USA, his original intended home for his entire mycological collection.

In retirement, Corner also took the opportunity to write autobiographical accounts in a number of papers and books. Besides the harrowing account of the occupation of Singapore set out in *The Marquis—a tale of Syanon-to* (1981), he wrote more of Singapore and Malaysia in *Botanical monkeys* (1992) and of his relations with Gilbert-Carter (1975) and Church

(1981); he prepared a biographical memoir of Emperor Hirohito for the Royal Society (1990). He also completed a major unpublished autobiography, *Moments botaniques*, parts of which he used in a plenary lecture delivered at the International Botanical Congress held in Leningrad in 1975. A surviving piece of it, prepared for publication by Corner himself, deals largely with his youth and the years in Singapore, including his return visits decades later. However, the pages of typescript with potentially the most interesting memoirs for the historian of science, those covering the immediate postwar period and his assessment of scientists since then, have yet to surface from his papers, although it is believed that he left financial provision for the book's publication.

In 1975, Corner was diagnosed with glaucoma—as had his father and younger sister before him—then cataract in both eyes. After 1983 there was no more microscopic work. About 1980 came a form of muscular paralysis, although it was caught in time. Nursed and cared for by his second wife and, when she had to be moved into a nursing home, his housekeeper, Corner declined physically and his eyesight deteriorated until near-blindness. With his mental faculties still intact, he died in his bed at 91 Hinton Road, Great Shelford, Cambridgeshire, on 14 September 1996.

PERSONAL TRAITS

John Corner was a man of imposing bearing. He did not suffer fools and could be stubborn or irascible; he fell out spectacularly with some colleagues and even some of his own research students. He could be remarkably formal: all the time that I was his research student (1970–73) he referred to me as 'Mr Mabberley', even when I arrived, trembling with my latest offering, for his fortnightly meeting about my work. With his back to the door of his room off the herbarium in the Botany School, his body hunched over his old brass microscope, he would be cutting sections of seeds by hand ('To embed in wax, Mr Mabberley, is to embed in obscurity') and would grunt a 'Come in' without turning round. Clearing his desk, he would start reading my efforts, and then exclaim, 'Yes, that reminds me of this... or that... plant, or that place...or so-and-so's work'. Idea spilled out after idea, insight and revelation; I could not (dared not?) write it down, but left the room enervated, inspired.

Corner expected loyalty and generally got it, but those felt to be ungrateful or letting the side down, in being less uncompromising than him, were consigned to outer darkness. He kept up a vast worldwide correspondence, usually writing letters by hand; he was a loyal supporter of those he thought worthy or worth encouraging. He had little time for narrow specialists and especially decried what he saw as retrograde trends in biological teaching and research, notably in North America. The removal of living plants from young people's experience particularly irked him: with fewer and fewer having practical experience from school or being brought up in the country, he would encourage them to get their hands dirty, to grow plants: in his book, gardening was a definite plus for a botanist. He also deplored the use of photography rather than drawing, rightly asserting, 'To draw is to understand'. Bureaucracy was anathema to him: in his view it hindered scientific progress. His anti-establishment stance led to his celebrated campaign against the erection of a grand entrance to the University Botanic Garden in Cambridge, which was to have incorporated a public lavatory ('Clochemerle-sur-Cam') next to a World War I memorial; his impassioned rhetoric prevailed against the University authorities and it was never built.

Corner smoked a pipe long after it was fashionable and his books and papers are all tobacco-stained. He read widely: Bunyan, Blake and, especially, Gibbon were his favourite authors—‘a day is wasted if I have not learnt something, even if only a wrong spelling.’ This was his kind of wit; the Fellows of Sidney Sussex College could be reduced to fits of laughter by his after-dinner jokes. His way of telling an anecdote was inimitable: with head slightly thrown back and index finger prodding the air (and sometimes a disconcerting flick up of the lenses of a Japanese pair of spectacles he wore, allowing him not to take them off while using a microscope), he would declare, ‘Open up all the books—you won’t find it...’. Sometimes shy in new company, when his stammer would come to the fore, he was a brilliant conversationalist when at ease; an evening in Oxford when I hosted a dinner-party for Corner, his wife, and Academician Armen Takhtajan and his wife, was one of the most hilarious yet informative that I can remember. Corner also enjoyed music, particularly playing Brahms on the piano. He gardened until he could no longer see well enough to avoid damage to both the garden and himself, even buying up the house next door to prevent the development that might have taken place in its garden next to his.

LEARNED SOCIETIES AND HONOURS

Corner was elected F.R.S. in 1955, although he often complained of the probing procedures preceding such elections; he was awarded the Darwin Medal in 1960. He was on Council and served on, *inter alia*, the Leverhulme Scholarship Committee from its inception (1967–70), the North Borneo Committee (1960–65), the Southern Zone Committee, the UNESCO Committee (1959–66), the Developing Countries Committee, the Solomon Islands Committee (1964–65), the New Hebrides Committee (1965–66), the Biological Expeditions Committee (1955–63), Sectional Committee (Botany) (1956–59, as Chairman in 1957), Pacific Science Committee (1958–71), Government Grants (Board F) (1957–60), Taxonomy Committee (Chairman, 1960).

He was a Fellow of the American Association for the Advancement of Science, Corresponding Member of both the Botanical Society of America and the Royal Netherlands Botanical Society. He was an Honorary Member of the Mycological Society of Czechoslovakia (1952), the Japanese Mycological Society, the British Mycological Society, the Malayan Nature Society (which held its very first meeting in his house in Singapore), the Botanical Society of Edinburgh, the Mycological Society of America (1992) and the Association for Tropical Biology.

Corner was President of the Botanical Section of the British Association for the Advancement of Science (1953), sometime President of both the Cambridge Natural History Society and the Cambridge Philosophical Society. He was a governor of Rugby School from 1959 to 1975. He served as Secretary of the Malayan Branch of the Royal Asiatic Society 1932–33, was on the executive board of the International Union for the Conservation of Nature (IUCN), served on the Council of the Linnean Society and was Vice-President under Carl Pantin, was on the UNESCO Council of the Ministry of Education for many years, the Council of the Systematics Association, also for several years, and, from its start, on the committee of the Explorers’ and Travellers’ Club at Cambridge—for many years its chairman.

Corner was awarded the Benefactor’s Medal of the British Mycological Society, the Patron’s Medal of the Royal Geographical Society (1966), the Gold Medal of the Linnean

Society of London (1970), the Victoria Medal of Honour of the Royal Horticultural Society (1974), and the Allerton Award of the Pacific (now National) Tropical Botanical Garden, Hawaii (1981). The Emperor of Japan and his son invited him to Japan twice: he was given the Golden Key of the City of Yokohama, Japan, in 1985, the year in which he received the first Japanese International Prize for Biology (10 million yen). In 1996 he was joint winner of the first de Bary Medal of the International Mycological Association.

He was made C.B.E. in 1972.

MAJOR SCIENTIFIC CONTRIBUTIONS

Corner's early move from mycology to angiosperms led him to be a conservationist; the cause of rainforest conservation permeates his writing. He pressed for and succeeded in the establishment of the Bukit Timah forest in Singapore, around 1933 as the last stand of forest on the island, then Gunong Panti Reserve and Mawai Reserve in Johore, Malaysia. In the 1940s he was one of the first to publicize the fate of tropical vegetation and continued to do so in publications, both semi-popular and in journals such as *Nature* for the rest of his life, although he considered his efforts on the executive board of the IUCN to be 'fruitless'.

As a tropical botanist he was unique in performing research on both seed-plants and fungi: his knowledge of botany and its literature was prodigious. Underlying everything, Corner was a developmental biologist; the study of development, process rather than 'characters', was inculcated by Church. Corner's breakthrough in fungal systematics hinged on the development of the fruiting body. His seed work was ontogenetic; his work on tree-architecture was similarly so. In figs, his greatest alpha-taxonomic group, it was the development of the leaf venation that opened up new insights. His paper 'Transference of function' was published in both the botanical and zoological journals of the Linnean Society (1958); with succeeding work on totipotency, cloning and homoeotic genes, this pioneering work, based on a consideration of a wide variety of plants and leaning in part on the Durian Theory, bears re-reading by today's specialists in developmental biology.

Although a monographer of Moraceae and the gigantic genus *Ficus* in particular, Corner kept up interests in all groups of plants, as is witnessed by the range of topics that his research students studied, from palms to Compositae. Yet he never proposed a new system of angiosperm classification. He believed that all the systems then in use were flawed because of the rank parallelism in angiosperm evolution. However, in *Seeds of dicotyledons*, he outlined major criticisms of those systems, basing his arguments on seed structure and, later, Dahlgren's system in particular, although less successfully, in a paper (1981) rather more full of rhetoric than science. It has taken the use of sophisticated DNA sequencing techniques to bring order to what is known; it is astonishing to see now how much was foreshadowed in Corner's seed work.

Corner considered his greatest botanical mentors to be Church and then C.E. Carr (1892–1936), a rubber-planter and amateur orchidologist in Malaya and, during the Occupation, Kwan Koriba and eventually Hirohito, Emperor of Japan. In his own reckoning, the next important influences were his research students, particularly three, including Peter Ashton, now of Harvard University, but also Peter Sell of the Cambridge herbarium. Others whom he felt had influenced him were Humphrey Gilbert-Carter of the Cambridge Botanic Garden, Robin Hill, F.R.S., and Julian Huxley.

Corner's individualistic style was a hallmark of his research too: that independence of thought that he instilled into his research students. Like Church before him, Corner never ran a research group in the modern sense of that term. He let his students range where they would and he was never 'joint author' of papers based on the student's own research. So esoteric was Corner's style that, on his retirement, tropical botany withered in Cambridge. However, to compare his contribution with the equipment-heavy 'research groups' of today, justified by the amount of grant money thrown at them, is misguided. His tools were cheap, but his mind was great. Like a philosopher or other thinking academic he instilled ideas and freshness into generations of young people and, through his research students and their research students, generations more, just as his mentor Church had done before him. The 'school' is in the enlightened.

EPONYMY

Although Corner deplored the naming of plants after people, only once doing so himself in commemorating C.E. Carr, others ran the gauntlet of offending him, as follows (currently accepted names commemorating him in bold).

Seed-plants

- Adinandra corneriana** Kobuski (Theaceae, Malay Peninsula)
Alpinia corneri (Holt.) R.M. Smith (*Cenolophon corneri* Holt., Zingiberaceae, Malay Peninsula)
Alseodaphne corneri Kosterm. = *A. paludosa* Gamble (Lauraceae)
Anisophyllea corneri Ding Hou (Anisophylleaceae, Malay Peninsula)
Argyreia corneri Hoogl. (Convolvulaceae, Malay Peninsula)
Artocarpus corneri Kochummen (Moraceae, Borneo)
Barringtonia corneri Kiew & Wong (Lecythidaceae, Malay Peninsula)
Bauhinia purpurea L. var. *corneri* de Wit = *B. purpurea* L. (Leguminosae)
Begonia corneri Kiew (Begoniaceae, Malay Peninsula)
Bulbophyllum corneri Carr (*Epicranthes corneri* (Carr) Garay & Kittredge) = *B. vesiculosum* J.J. Sm. (Orchidaceae)
Calamus corneri Furtado (Palmae, Malay Peninsula)
Cinnamomum corneri Kosterm. (Lauraceae, Borneo)
Cornera Furtado = *Calamus* L. (Palmae)
Dysoxylum corneri Hend. = *D. grande* Hiern (Meliaceae)
Elaeocarpus corneri Weibel (Elaeocarpaceae, Borneo)
Freycinetia corneri Stone (Pandanaeae, Malay Peninsula)
Globba corneri A. Weber (Zingiberaceae, Malay Peninsula)
Henckelia corneri (Kiew) A. Weber (*Didymocarpus corneri* Kiew, Gesneriaceae, Malay Peninsula)
Homalomena corneri Furtado (Araceae, Malay Peninsula)
Licuala corneri Furtado (Palmae, Malay Peninsula)
Lithocarpus corneri S. Julia & Soepadmo (Fagaceae, Borneo)
Maesa corneri Sleumer (Myrsinaceae, Bougainville)

Medinilla corneri Regalado (Melastomataceae, Borneo)
Melicope corneri T. Hartley (Rutaceae, Malay Peninsula)
Morinda corneri Wong (Rubiaceae, Malay Peninsula)
Pandanus corneri Kanehira = *P. rostratus* Martelli (Pandanaceae)
Pentace corneri Kosterm. (Malvaceae s.l./Tiliaceae, Malay Peninsula, Borneo)
Plectocomiopsis corneri Furtado (Palmae, Malay Peninsula)
Rhaphidophora corneri Furtado ex P. Boyce (Araceae, Malay Peninsula)
Schismatoglottis corneri A. Hay (Araceae, Borneo)
Schoutenia corneri Roekm. (Malvaceae s.l./Tiliaceae, Malay Peninsula)
Sonerila corneri Nayar (Melastomataceae, Borneo)
Ternstroemia corneri Keng (Theaceae, Malay Peninsula)
Tetradisia corneri Furtado = *Ardisia denticulata* Blume (Myrsinaceae)
Thrixspermum corneri Holttum (Orchidaceae, Malay Peninsula)
Timonius corneri Wong (Rubiaceae, Malay Peninsula)

Fungi

Conocybe corneri Watl. (Bolbitiaceae)
Corneromyces J. Ginns (Coniophoraceae [Corneromycetaceae])
Gloeocantharellus corneri (Singer) Corner (*Lindermyces corneri* Singer, Gomphiaceae)

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The frontispiece photograph was taken in 1955 by W. Stoneman, J. Russell and Sons, 63 Baker Street, London, W.1. © The Royal Society.

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