

appeared in 1777 and 1798. Curtis's aim was to produce a complete Flora of Britain, towards which the "Flora Londinensis" was to be a modest beginning; but the larger idea is represented only by a few non-London species included towards the end of the work. To the general public, then as now, the chief attraction of the "Flora" is the series of magnificent coloured plates, 435 in all, drawn and engraved by Sydenham Edwards, Kilburn, Milton, Sansom, James Sowerby and others. Three hundred copies of each part were printed and the plates were hand-coloured by a team of some thirty colourists. But the text, to the botanist, is of equal or greater value. Sir James Smith ranked it "next to Ray's *Synopsis* in original merit and authority on British plants". Curtis was an acute and thorough worker, and in many difficult groups he brought order out of chaos, interpreting old names in the light of recent knowledge and describing several new species.

It is scarcely surprising that the severely botanical "Flora Londinensis" was not financially successful, and during its publication, in 1787, Curtis launched his second great venture, the *Botanical Magazine*, which recouped him handsomely for his losses. The *Magazine*, said Curtis, brought him pudding, while the "Flora" brought him praise. His aim, as described in the preface, was a work "in which Botany and Gardening . . . might happily be combined", and the fact that the magazine, with its beautiful coloured plates of garden plants, is still appearing, after 160 years, is a tribute to his far-sighted estimate of horticultural and botanical needs.

In 1777, on giving up his post at Chelsea, Curtis began to move his garden from Bermondsey to Lambeth, "very near the Magdalen Hospital, St. Georges Fields, in the road from the said Hospital to Westminster Bridge Turnpike, through Lambeth Marsh Village". Here his "London Botanic Garden" was opened on January 1, 1779. Curtis's two chief patrons were Daines Barrington and Thomas White, correspondent and brother, respectively, of Gilbert White of Selborne, and there were numerous subscribers of one and two guineas. Curtis remained at Lambeth until 1789, when, driven desperate by the effect of the London atmosphere on his plants, he again moved his Garden, to a site now occupied by the Brompton Hospital for Consumption, Fulham Road. After ten further years of fruitful botanical and entomological work he died at his home near the Gardens on July 7, 1799.

Curtis's main publications, apart from the "Flora Londinensis", the *Botanical Magazine* and his two early entomological works, were "Linnaeus's System of Botany" (1777), "A Short History of the Brown-tailed Moth" (1782), and "Practical Observations on the British Grasses", which ran to several editions. Reading Mr. W. Hugh Curtis's admirable biography, however, one realizes that Curtis's influence on contemporary botany was due not only to his publications but even more, perhaps, to his friendships and correspondence with the leading botanists of the time, and to the establishment of his Garden as a rallying point for botanical endeavour throughout the country. Influence of this kind, however, though powerful at the time, becomes obscured with the passing of the years, and to-day Curtis's memory is kept green primarily by the nearly ten thousand plates and descriptions of the *Botanical Magazine*, and the two vast 'elephant folios' of "Flora Londinensis".

J. S. L. GILMOUR.

Curtis as Naturalist and Humanist

William Curtis placed the following inscription on the title-page of the second volume of his "Flora Londinensis"—"With wise intent the hand of Nature on peculiar minds imprints a different bias, and to each decrees its province in the common toil". How true that remark is will be evident if we compare him with some of those other strongly individual eighteenth century naturalists—Linnaeus, to whom, from boyhood until old age, systematy was the very breath of life, and whose greatness was proved in that hard task; Peter Collinson, that benign figure of a man, introducing new plants into English gardens from the American colonies and elsewhere, as well as several new correspondents to Linnaeus; John Ellis, the discoverer, a man of keen eye and alert mind, who nevertheless left much of the actual work of classification to others; Daniel Solander, who, although Linnaeus's representative in England, was allowed by Sir Joseph Banks to publish so little; the two Martyns, with their solid classical learning; Gilbert White, who made good literature out of natural history and a beautiful Hampshire village; and many others who in varying degrees contributed to the progress of natural history in England during the eighteenth century.

Curtis became what he was born to become—a practical naturalist. His biographers mention the profound early influence of a local ostler, Thomas Legg, who was well read in the herbals of Gerard and Parkinson and could name most of the wild flowers around Alton. This was indeed the determining influence in Curtis's life, and one which lasted until he died at the comparatively early age of fifty-three. In that influence also is his link with the past, for just as the herbalists were bent on identifying living plants with those described or pictured in earlier herbals, so Curtis was fired with the ambition to describe and *picture* all the plants and animals of Great Britain.

Among the several biographies of Curtis, culminating with the excellent one by Mr. W. Hugh Curtis, "William Curtis, 1746-1799, Fellow of the Linnean Society, Botanist and Entomologist", published as recently as 1941, that by Samuel Goodenough in the *Gentleman's Magazine* for 1799 is surely the one in which we can see Curtis's personality most clearly; especially if we include the interesting extracts from Goodenough's letters to Curtis, to be found in Mr. Hugh Curtis's book. For twenty-three years, during the greater part of which Goodenough was headmaster of a school at Ealing, he knew Curtis intimately. In the year of Curtis's death, Goodenough became Canon of Windsor, and in later years, Bishop of Carlisle. He was a very good classical scholar, and as one of the three founders of the Linnean Society of London had a great influence on its early years. In many ways he was exceptional—a Hercules of a man well over six feet in height, of great breadth of mind and with much downrightness of expression; a man of uncommon common sense combined with a deep sense of religion and with a very high respect for principles. Although he became well known as a botanical author, botany and entomology were only relaxations; his real life-work lay elsewhere. There must have been something extraordinarily fine about William Curtis for him to have earned and kept that friendship.

Goodenough's biography of Curtis is dated August 4, 1799, nearly a month after Curtis's death on

July 7, and was entitled "Some Biographical Anecdotes of the late Mr. William Curtis" by the editor of the *Gentleman's Magazine*. He had access to an autobiography of Curtis, since he quotes from it. He may have obtained it from Dr. John Sims, F.R.S., with whom it is known Curtis left some such memoir. Needless to say, this document, at present lost, would be of much interest to-day; but perhaps it may have been destroyed by the 'pious' hand of someone who wanted to hush up any expression of the resentment felt by Curtis when "English Botany" was begun by Sowerby and Smith in 1790. Goodenough expressed regret that Curtis did not receive a "polished education", the lack of which he avers leads to the mind being unable "to fix itself; conscious of great and various powers, it runs from subject to subject"; though he recognized that this was not to be imputed to Curtis as a fault, but to his family's circumstances. His appreciation of Curtis's personal character is, however, unreserved: "In short, Mr. Curtis was an honest, laborious, worthy man, gentle, humane, kind to every body, a pleasant companion, a good master, and a steady friend. His *Flora Londinensis* will be a *monumentum aere perennius*. The size, the accuracy of the work, the masterly exemplification of dissection of flowers, will do much for the establishment of the Linnæan system as any work which ever appeared. . . ." Again, "there never was a pleasanter companion than Mr. Curtis: he abounded in innocent mirth; and good-humour ever floating uppermost gave a pleasant cast to every thing he said or did". If the passage from the autobiography is added—"I have no pretensions to be considered as a man of letters, or of great mental powers, I know myself and my imperfections. A consciousness of my inabilities makes me diffident, and produces in me a shyness, which some have been ready to construe into pride", it must be admitted that Curtis was indeed a worthy representative of the best type of eighteenth century naturalist; and although Goodenough may have been right in his views on education, it seems nevertheless true that had Curtis received a "polished education", the world might not have had either "*Flora Londinensis*" or the *Botanical Magazine*.

As a practical man, Curtis used the means available to begin to realize his dream of a complete *Flora* and *Fauna* of Great Britain; and about the year 1777 he decided to give up taking an active part in his business as an apothecary and to concentrate his energies on that task. He gave up also his post as demonstrator at the Chelsea Physic Garden, which he had held since 1772. His small garden at Grange Road, Bermondsey, becoming inadequate for his scheme, he took a more extensive piece of ground in Lambeth Marsh (its position to-day would be just north-east of Waterloo Station), where he proceeded to open the London Botanic Garden* for growing the wild flowers which were to be figured in the "*Flora Londinensis*" and on which he was to lecture to the subscribers who supported his garden. In 1789 he transferred the Garden to Brompton, partly because the smoke of London spoiled his plants and partly because a new lease of the land involved too heavy a rent.

William Curtis accomplished much in his comparatively short life, in spite of his lack of a "polished education". Without doubt his early enthusiasm must have weakened when financial difficulties began to slow up the publication of "*Flora Londinensis*".

**Chronica Botanica*, 9, plate 9 (1945), reproduces James Sowerby's water-colour drawing of the Garden, painted before 1787.

Goodenough attributed the financial failure of the "*Flora Londinensis*" to the slowness with which Curtis issued the parts; and even blamed the French Revolution! In spite of the sale of each part not rising above three hundred copies, Curtis refused to withdraw from his original proposal that each part should be sold at 2s. 6d. plain; 5s. coloured; and 7s. 6d. coloured with extra care (probably by William Graves, who out of about thirty plate-colourists employed by Curtis was the best colourist; and who continued to work until he was seventy-three years of age, when his colouring is recorded to have been as good as ever). It is characteristic of Curtis that he was ready to sacrifice much to carry out his scheme for picturing life-size every British plant; but in spite of generous help from friends the scheme was too big for one man to accomplish. By good fortune, his founding of the *Botanical Magazine*, with its wider horticultural appeal, proved a success from the start; and his name will always be remembered as its founder.

Although Curtis did not make any outstanding discoveries in natural history, being blessed with very keen eyesight he did make some. These Goodenough mentions in part. What is of greater importance is that he, as a benevolent average man, aroused in many thousands of his fellow-countrymen a taste for botanical and horticultural studies, and so performed a service of national importance. Indeed, as one whose constant aim was to help his fellows, as his miscellaneous publications most clearly show, he merits to be classed not only as a naturalist but as a humanist also.

A genus of Cornaceæ, *Curtisia* Aiton, was founded in 1789 in his honour. This is the Assagay tree of South Africa; perhaps not a very happy choice for honouring one of Quaker family. Two good contemporary portraits of Curtis exist—the oil painting by Wright in the Royal Horticultural Society's collection and a miniature by Angelica Kauffmann, R.A. Both are reproduced in Mr. Hugh Curtis's book. A third painting, in oils, said to be by Zoffany, was sold in 1923 and is now in an art gallery in India.

S. SAVAGE.

NEWS and VIEWS

New Year Honours List

THE New Year honours list, and another to be published on January 9, are much longer than the usual lists, so as to provide recognition for war services, military and civil, in the many theatres of activity during the Second World War. It includes the following names of scientific men and others associated with scientific work:

G.B.E.: Sir Edward Appleton, secretary of the Department of Scientific and Industrial Research.

Companion of Honour: Prof. A. V. Hill, a secretary of the Royal Society, for scientific services.

K.C.B.: Sir Donald Vandepuer, permanent secretary of the Ministry of Agriculture and Fisheries.

K.C.V.O.: Sir Stewart Duke-Elder.

K.B.E.: Sir John Renwick, lately controller of communications, Air Ministry, and of communications equipment, Ministry of Aircraft Production.

Knights: Mr. W. A. Akers, director of atomic bomb research, Department of Scientific and Industrial Research; Mr. D. C. Bailey, acting super-