John Bartram of Philadelphia

Gareth Evans outlines the life and character of the man celebrated as the first botanist of the Americas

This year is the tercentenary of the birth of John Bartram (1699–1777), celebrated as the America's first botanist. Remarkably, he started life as a farmer 'of the meaner sort', but, to gain knowledge in 'physic' and the medicinal use of plants, he borrowed and read the herbals of William Salmon, Nicholas Culpeper and William Turner and so began to teach himself the science of botany. He went on to introduce hundreds of American plants to Britain, while at the same time corresponding with the most learned and 'curious' gentleman of the eighteenth century.

The engaging personality of American farmer John Bartram comes down to us clear and unclouded from the eighteenth century. When John Bartram was to call upon a genteel Virginian gentleman, a mutual friend sent ahead to warn the host not to be startled at his appearance:

> *He is a down right plain Country Man, a Quaker too into the Bargain; look not att the Man, but his Mind, for his Conversation will compensate for his appearance you will find he is well versed In Nature & Can give a good Account of Her Works.*

John Bartram's house.

Photos: Gareth Evans

The gentleman was not to be disappointed; he found John Bartram no ordinary Pennsylvanian farmer, on the contrary he found him –

> *the most takeing Facetious man that I had ever met with – I never was so much delighted with a stranger in my life.*

This was a response that may have been echoed by the many people that John Bartram met, charmed and 'fascinated'.

Family history

Like many other Quakers, John Bartram's grandparents came to Pennsylvania from Derbyshire in 1683 to find religious tolerance, a founding principle of the colony. After the deaths of his father and his first wife, John remarried and established himself on the banks of the Schuylkill River, at Kingsessing Creek outside Philadelphia. There he built his own impressive stone house, used innovative techniques to develop a successful farm, helped raise 11 children, and achieved the accolade of the "greatest natural botanist in the world".

The authenticity of the much-quoted story of how John Bartram began to 'botanise' has been questioned. Nevertheless it has the sincerity which is a characteristic of John Bartram's writing. One day, while resting from ploughing in the shade of a tree, his eyes fell on a daisy:

> *I plucked it mechanically and viewed it with more curiosity than common country farmers are wont to do; and observing therein many distinct parts, some perpendicular, some horizontal. What a shame, said my mind, that thee shouldst have employed so many years in tilling the earth and destroying so many flowers and plants without being acquainted with their structures and uses! This seeming inspiration suddenly awakened my curiosity for these were not thoughts to which I had been accustomed.*

House and garden

Remarkably, John Bartram's house and garden has survived, secluded among woods, within the industrial landscape of West Philadelphia. It is decorated with a two-storey portico, decorative carvings and dedications to himself and his wife Ann, and, not least, to God. A guest of John Bartram wrote:

> *His garden is a perfect portraiture of himself. Here you meet a row of rare plants almost covered over with weeds, here with a beautiful shrub, even luxuriant amongst briars, and in another corner an elegant lofty tree lost in a common thicket. Every den is an arbor every run of water a canal and every small level spot a parterre where he nurses up some of his idol flowers and cultivates his darling productions.*

The gardens today have beds of kitchen, medicinal and ornamental beds around the house, while the more distant grounds have been developed as habitats for the woodland, wetland and meadow flora that Bartram would have seen on his many expeditions. In May 1999, for the celebrations of Bartram's tercentenary, the grounds of Bartram's house were populated by many costumed 're-enactors'. They included a learned and urbane Benjamin Franklin (a supportive friend of Bartram); a meticulously prepared Philadelphian apothecary, many of whose real counterparts received herbs from Bartram's garden to stock their shops; hard-working country farm workers relaxing and dancing to familiar English tunes of the period and, not least, re-enactors representing the Native American tribes, reminders of many unresolved colonial issues and whose culture Bartram was privileged to experience.

In the course of his long life his many expeditions took him north to the Canadian borders and the Great Lakes, and south through the Carolinas to the newly-acquired Florida. Travelling usually in autumn, when his crops were in, he could collect seeds and take cuttings to propagate back at his farm. The best samples were sent to a Lord, or a 'curious' gentleman for their 'American

A re-enactor portrays a Pennsylvanian apothecary.

gardens' back in England. Among these were some of the great gardens of the time, including the Chelsea Physic Garden (the Apothecaries' Garden). The quantity and quality, of the material Bartram sent ensured that many American plants got a firm foothold in this country, and he is credited with introducing over 200 species.

The two worlds of Europe and America were not the only ones which Bartram was to straddle. Away from the sophisticated and expanding colonial cities and towns, Bartram was to enter territory which was undisputedly owned by the Native Americans. He became one of the relatively few to experience their culture at first hand. In 1743 Bartram accompanied a group which were to attend a conference of the 'Five Indian Nations' near Oswego on the southern banks of Lake Ontario. In the complicated and chaotic politics of the time John Bartram appeared to have mixed feelings towards the Native American tribes. His most negative-sounding quotes perhaps derived from the fact that his father had been killed by members of a tribe when he was a boy.

However, he was always eager to head into what was relatively unexplored 'Indian territory' to search for new or rare plants. Subsisting off huckleberries or game shot as they went, travellers such as Bartram also benefited from traditional hospitality of the natives. As Bartram recorded on his journey to Oswego:

> *the Indians brought us a bowl of boiled squashes cold; this I then thought poor entertainment, but before I came back from my journey I had learnt not to despise good Indian food.*

Among the seeds Bartram collected while near Oswego, were many which proved to be of interest in England. The seeds of the scarlet bergamot (*Monarda didyma*) went to his friend Peter Collinson's garden at Ridgeway House, Mill Hill (now the site of Mill Hill School). There, as Collinson was to write "this charming plant flowered the first time in England in 1745 and is now, in 1760, plentiful in Covent Garden Market, it is called Oswego tea by the people of New York – it is not unpleasant." Another mauve-flowered species of this attractive herb apparently had had a previous introduction into England a century earlier by John Tradescant the younger but in the course of time it had been "lost in our gardens".

The return home from Oswego found John Bartram writing his journal in a more relaxed style. In early August Bartram's party camped in the mountain terrain surrounded by ginseng, growing wild.

This plant was anciently found in Korea and prized in China where it held a high price in Bartram's time. It had been conjectured that ginseng might also grow in North America. In fact American ginseng was first discovered in Canada by the Jesuit priest Father Jartoux around 1710. When in 1738 Bartram discovered *Panax quinquefolius*, much publicity ensued. Benjamin Franklin's *Pennsylvania Gazette* on 27 July announced:

> *We have the pleasure of acquainting the World, that the famous Chinese or Tartarian Plant, called Gin Seng is now discovered in the Province near Susquehannah . . . The Virtues acribed to this Plant are wonderful . . .*

Dr. Christopher Witt respected Physician, and astrologer, of Philadelphia reported that:

> *our Indians will travel three, four or five days without food by only keeping a bit of root in their months.*

Colonel William Byrd, one of the few American Fellows of the Royal Society of London, contended that the earth had never produced a finer plant for man's use, insisting that it benefited man in all manner of ways.

Bartram was sceptical about the project to collect or cultivate American ginseng and sell it to the Chinese. In fact, anticipated profits did not materialise, as the market quickly became saturated, probably by ginseng exported from Canada by France. American ginseng's popularity has now made it an endangered species, acknowledged by a listing in Appendix III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which places conditions on its export from its native country to help protect it from further exploitation. This, like other American medicinal plants introduced by Bartram, such as the fringe tree (*Chionanthus virginicus*) and the squaw root (*Cimicifuga racemosa*), was first looked upon for its ornamental value, but after the nineteenth-century herbal crusade from America to this country, is now part of our unique Anglo-American herbal tradition.

Sanguinaria canadensis *(bloodroot) in leaf at John Bartram's garden in May 1999.*

Cures from abroad

However, some 'Indian cures' were not unknown to eighteenth-century London, promoted by various 'learned' men and physicians, who were interested in extending their treatments beyond the twin tortures of bleed and purge. The well-connected, but untravelled, Collinson made some interesting suggestions to Bartram:

> *I am much concerned for thy ulcer, but you have I think, skilful people [i.e. physicians] at Philadelphia, though a good old woman's nostrum had carried the prize from them all. Pray, consult some Indians: they have done wonders in obstinate cases by their simples.*

This may have been stating the obvious to Bartram who, like his father before him, treated his family, friends, poor neighbours and servants with native herbs. Bartram has been described as one of the notable 'Medical Botanists of Philadelphia'. This historically loose group of investigators promoted the use of native herbs for their 'obvious activity' and to prevent dependence on imports. This, in turn, encouraged their study at the important medical school at the University of Pennsylvania, and their subsequent inclusion into the American *Pharmacopoeia.*

With this acquisition of knowledge of native herbs there was a need for an authoritative book on their use. English herbals, written by Gerard, Parkinson and Culpepper had always been sent over to the American colonies, and even printed there. But their contents were of limited use as they referred mostly to 'foreign' English herbs, and at their best itemised only three or four native American herbs. Some English herbs, however, could be gathered as they had been introduced into the country as weeds. Bartram reported how scotch thistles had filled a whole territory after an single imported mattress had been emptied of its thistledown. English herbs were also expensively imported and sold by American apothecaries, as were other exotic herbs such as ipecacuanha.

Bartram's writings

In 1746 Bartram partly filled this need for a guide to native herbs and published what has been credited as the first description of native medicinal plants. It was a true American *materia medica* which had few rivals for decades after publication. Written as an appendix to an English herbal, Bartram's *Descriptions, Virtues and Uses of Sundry Plants of these Northern Parts of America,* listed 20 native medicinal herbs.

Some of them had names similar to English herbs but were totally unrelated to them, and some were weedy introductions from England, for example toadflax (*Linaria vulgaris*). Ten of the 20 plants listed by Bartram went on to appear in the American *Pharmacopoeia*, and many remain popular. These include a preparation from the roots of horse balm (*Collinsonia canadensis*) and bloodroot or puccoon (*Sanguinaria canadensis*). The roots of the pretty woodland flower were also used as a body dye and insect repellent by Native American women. John Bartram's son, William, was used as a 'guinea pig' by a Pennsylvannia University medical student who was studying his dissertation on bloodroot. At the strength used, it became an emetic (reflecting its early Native American use) and poor William vomited twice within an hour. The dispassionate student recorded that "the motions were pretty strong".

The health and robustness of the Native Americans was obvious, and was envied. Bartram directly acknowledges a Native American source in a featured entry for the newly discovered Indian Cure for venereal disease. This was lobelia (*Lobelia siphilitica*) whose native American use was relayed to John Bartram at secondhand. The entry shows Bartram's attempt

*Fringe tree (**Chionanthus virginica**) in bloom at John Bartram's house. This was one of the medicinal plants introduced to Britain by John Bartram.*

to record the detailed delivery of the treatment, the importance of the patients reaction to it and to the patient's diet. This reflects the depth of native American herbal knowledge, which was difficult to acquire, or generally lost in its transit to European medicine. His acute observation on treatment shows what a good lay doctor John Bartram must have been. He carefully worked with the nature of the remedy. As he said of another herb:

> *It is a powerful worker, a little churlish, yet it may be a noble Medicine in skillful Hands.*

In 1765, at the age of 67, John Bartram was on his last trip. Although the journey was arduous he still had his youthful pleasure in simple things. "Fine warm morning", he wrote in his journal, "birds singing – fish jumping – turkeys gobbling." He was accompanied on his travels by his son William (known to Native American tribes as *Puc Puggy* – 'The Flower Hunter'), who went on to publish a journal of his own travels, the content and style of which was admired by such Romantic poets as Wordsworth and Coleridge. Perhaps there was the germ of William's vivid descriptions in the heightened prose of his father's best writing, reminiscent as it is of the spirit-filled 'testimony' of Quaker worship:

> *What charming colours appear in the various [plant] tribes, in the regular succession of the vernal and autumnal flowers – these so nobly bold – those so delicately languid! What a glow is enkindled in some, what a gloss shines in others! With what a masterly skill is every one of the varying tints disposed! ... the wonderful works of the Omnipotent and Omniscient Creator. The more we search and accurately examine his works in nature, the more wisdom we discover.*

Gareth Evans

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Further Reading

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