

Bradford Village represents a rather unique design in retirement communities in that, among other things, it has a botanical theme firmly grounded in the glorious period of the 18th century when botanical exploration and gardening flourished in England and interest in plants and natural history of South Carolina was in its golden age. Botanical explorers, gardeners, botanists, botanical patrons and many of those who had important parts to play in the developing natural history and botanical exploration in South Carolina during this period find their names and their plants associated with Bradford Village.

The one plant that is an exception to the 18th century history of South Carolina is a plant that gives a freshness and contemporary ambiance to the whole project. That plant is significant in that it demonstrates the importance our country places on new varieties of species and the effort, on a national scale, that the United States Department of Agriculture expends for the development of these new varieties. We have selected that plant as the focus of the Village and used it as the dramatic introduction to the area with the design of Bradford Boulevard. This plant, the Bradford Pear, gives us a modern example of our country's commitment to botanical research; a commitment that was inspired by the individuals that lend their names to the picturesque roads and circles that traverse Bradford Village.

It is instructive at this time to review briefly the history of the development of the Bradford Pear. In the early part of the 20th century, the USDA wanted to introduce new genetic material into the commercial pear trees then used in the orchards of America. Our orchards by the early 20th century were plagued by aphids, fire blight, and leaf blight. Botanists from the USDA were sent into China in order to find new

breeding stock for our weakened trees. Many pounds of seeds were brought back and germinated in the experimental plots at the USDA in Maryland. By chance, one of thousands of seedlings of this Chinese pear grew without spines and developed a symmetrical, handsome form. Unfortunately, this new variety of Pyrus calleryana did not produce pears that were edible. Years later it was discovered that this discarded variety had super qualities for use as a landscape plant. Some of the characteristics include strong root stock for standing in very strong wind, ability to grow in a variety of soils, straight trunk growth, beautiful white flowers that are produced before the leaves in the spring, shiny leaves that turn red in the autumn, and last, but not least, the ability to withstand pollutions of various kinds. This plant was placed on the market by the USDA in the 1960's and named to honor a senior horticulturist, F.C. Bradford.

The avenues that form the boundary of the Village on the north and south carry the names of two early 18th century naturalists that visited South Carolina. Both men wrote and published works on the natural history of our state and collected plants and animals for transport back to England. Both men made drawings of area plants and helped to lay the foundation for the developing interest that became full blown a few years later. Their published works were an inspiration to all who read them.

John Lawson, who came to South Carolina from England in 1700, traveled throughout the state until his death at the hands of the Tuscarora Indians in 1712. His New Voyage to Carolina was one of the first observations of natural history in the state. And next, Mark Catesby came to South Carolina in 1722 and remained for four years collecting plants and animals and making beautiful paintings of plants

and birds. When Catesby returned to England, he set about engraving 171 plants and 113 birds. His classic bird prints are prized today and are found in many homes in South Carolina. It is these bird prints that today cause us to refer to him as the "Colonial Audubon". His volume, The Natural History of Carolina, Florida, and the Bahama Islands, is still readily consulted by those interested in 18th century natural history.

As we turn into Bradford Village from the beauty of Bradford Boulevard, we enter John Bartram Avenue. The plants along this avenue have historical connection to one of the most important figures in the development of an understanding of the botany of North America in the 18th century. Born of humble beginnings in Philadelphia in 1699, John Bartram taught himself to read and write, and carried on a thirty year correspondence with Peter Collinson of London that has to be considered, in the light of our modern understanding, one of the most significant relationships in the history of North American natural history. John Bartram collected plants and shipped them to England until his death in 1777. At the time of his death, having served as the king's botanist, he was personally responsible for probably 25% of the new species introduced into England from North America in the 18th Century. He and his son, William, collected plants in South Carolina. The blue-jack oak, the cottonwood, and the oak leaf hydrangia were all named by Bartram, and they and other plants are to be found growing along the avenue. A special plant in the history of botany, even to the present day, is the "Lost Franklinia". This species, named to honor Benjamin Franklin, was first collected by John Bartram in the 1760's along the Altamaha River Valley in southeastern Georgia. It was collected again in the 1770's by

his son William and seen once again just about 1800 by a cousin of the Bartrams but was never seen again growing wild. It was cultivated by John Bartram at his garden in Philadelphia and survives today only in cultivation. This species grows with difficulty in our area, and attempts have been made to grow several individuals at the entrance to John Bartram Avenue.

From the left, two roads enter John Bartram Avenue with the names of botanical luminaries in the annals of South Carolina natural history. Andre Michaux Road honors the man from France who came to South Carolina in the 1780's and stayed to develop a botanical garden in Charleston and ship hundreds of plants back to the court of Louis XVI. He is probably the most important plant collector in South Carolina during the period. He died in Madagascar in 1802 and left behind a work that was published in two volumes in 1803, Flora Boreali-Americana. Many plants in South Carolina were named to honor Andre Michaux and his son. In addition many plants native to South Carolina were first described by Michaux and even today carry him as the botanical authority. The majestic Michaux Oaks that line Michaux Road were named to honor the family of Andre Michaux. Other plants of Michaux will be found planted throughout the area of Andre Michaux Road.

Thomas Walter Circle is named for a man who came to spend the rest of his life in South Carolina. He arrived from England about 1768 and spent the next twenty years of his life just south of Bradford Village in what is now Berkeley County along the Santee River. There he had a home and a botanical garden, and his descendants today are living in many South Carolina towns.

Thomas Walter was a candidate for the House of Representatives at the end of the Revolution, being elected just two months before he died in January, 1789. He had time even with his busy schedule as a South Carolina planter and politician to write latin descriptions of plants from his area and add to those the plants collected for him by the professional plant collector, John Fraser, whom he met in 1786. Thomas Walter finished his manuscript and John Fraser took it to London in the winter of 1788 and had it published as Flora Caroliniana. It was a major work then, and, as it was the first, it is an important work today. The plants of Thomas Walter are collected in a large leather volume and housed in the British Museum of Natural History in London. As you can imagine, Thomas Walter is the authority for many plants native to this area. The pine growing along Walter Circle is Walter's Pine and the small tree planted on the Circle is ironwood, a tree first collected and described by Walter in Flora Caroliniana.

The first road entering from John Bartram Avenue from the right is appropriately named for his correspondent, Peter Collinson of London. Peter Collinson was responsible for the introduction of many South Carolina plants into England in the 18th century. In the 1740's he was the first to get mountain laurel to bloom in London. In 1746 John Bartram sent seeds of the cucumber magnolia to Collinson who successfully grew the plants. Other plants that grow in South Carolina that Peter Collinson introduced into England include witch-hazel, paw-paw, wild azalea, river birch, dahoon holly and on the 30th of March 1758 he received seeds and thereafter grew the alder. Peter Collinson is remembered today by the genus Collinsonia of the mint family represented in the Carolinas by three species.

There are two circles that are associated with Peter Collinson Road. The first is named to honor the Charleston physician who came to South Carolina as a young man.

Alexander Garden, a Scot trained at the University of Edinburgh in medicine, came to South Carolina and settled in Charleston. There he established an active medical practice and a life devoted to botany. He collected plants and found time to develop a substantial garden in Charleston. When his many duties in his medical practice and his gardening permitted, he carried on a lively correspondence with European botanists including John Ellis in London and Carolus Linnaeus in Sweden. Being a loyalist during the American Revolution, Garden was forced to leave his adopted home and return to England after the war. He is honored today by the genus Gardenia, the cape jasmine that James Gordon had successfully cultivated for the first time several years earlier. The Gardenia has been a popular introduction in Carolina gardens for 200 years.

The next circle on Peter Collinson Road is named for the gardener James Lee. Lee, like others, was born in Scotland earlier in the 18th century and as a young man is reported to have walked to London. He worked at the Chelsea Physic Garden for a time under the direction of Philip Miller and shortly established his own garden in the west of London in Hammersmith. His land was called the Vineyard Nursery and he was second only to James Gordon in his ability to cultivate plants. Lee was more educated and academically inclined than Gordon and is the first to attempt to translate the great works of Carolus Linnaeus from Latin into English. James Lee was also responsible for the introduction of

many plants into England. The American beech and the pecan tree were cultivated in England by Lee in 1766.

If we now proceed down John Bartram Avenue past the entrance to Peter Collinson Road, we next come to a circle named to honor a London physician who was the patron and correspondent of John Bartram's son, William. Dr. John Fothergill, born in Scotland and trained at the University of Edinburgh, moved to London and developed a very successful medical practice. As was the case with all physicians of the time, he was interested in the cultivation of plants. He took this interest and expanded it into a full-fledged production. He, along with Peter Collinson, was the first to grow exotic orchids in England. He established a botanical garden at Upton House in West Ham and there he cultivated the many plants that he got from North America, including those sent from South Carolina. John Fothergill was honored with name of a genus of plants native to South Carolina, Fothergilla. This genus was first discovered by Alexander Garden of Charleston. There are two species of this plant that are native to the Carolinas and one of these grows along John Fothergill Circle.

If we proceed down John Bartram Avenue, we arrive at the intersection of John Fraser Circle and Sir Joseph Banks Road. John Fraser was a plant collector that first arrived in South Carolina in 1786. John Fraser, born in Inverness, moved to London and began working at the Chelsea Physic Garden and thereafter established his own garden in the west of London. At the urging of others, Fraser turned his energies to plant collecting and it is there that he made his mark. John Fraser collected 30,000 specimens in the southeastern United States with a concentration in South Carolina. He is the man who collected plants for

Thomas Walter (mentioned earlier) and had the Flora Caroliniana published at his own expense. Fraser introduced many plants into England including the mountain rosebay, a rhododendron from the northern part of South Carolina. Thomas Walter honored his friend by naming a native magnolia for him. The Fraser magnolia grows in the upper piedmont of South Carolina today.

Sir Joseph Banks is the dominant figure in England in the late 18th century in matters botanical. A well educated man with inherited wealth, he devoted his life to science and especially botany. He traveled with Captain Cook on his first trip around the world and he later sent Captain Bligh and the Bounty after the breadfruit tree in order to provide a good source of food for his slaves in Jamaica. The rest of that story is history. Banks collected many plants in the South Pacific and was instrumental in the discovery of Australia. A major genus of plants there is named to honor him, Banksia. Banks helped start the Royal Botanic Gardens at Kew where many South Carolina plants were grown in England. He was president of the Royal Society for over forty years until his death in 1820. During the early part of the 1800's he sent collecting expeditions to China. On one in particular, he sponsored a young man named William Kerr. Kerr proceeded to collect, among other things, two plants that have been much cultivated in the gardens in South Carolina. Both are roses. One, the Lady Banksia, was named to honor Bank's wife, and the other, the Easter Rose, (called Kerria) named to honor the efforts of William Kerr himself. Both of these plants have been much cherished in our state since Joseph Banks first introduced them to the western world 180 years ago.



Turning right on Sir Joseph Banks Road we arrive to the next circle that bears the name of the premier gardener of mid 18th century London. James Gordon was born in Scotland (most of the great gardeners of the period were Scots) and traveled to London to seek his fortune early in his life. He not only was paid well for his efforts, but he also became quite famous as the superior gardener. He was the first man able to germinate the seeds of azaleas and rhododendrons. He was responsible for many of the plants that Peter Collinson was able to grow. A friend of Collinson wrote of Gordon, "he has more knowledge in vegetation than all the gardeners and writers on gardening in England put together." James Gordon's garden at Mile's End in the east of London was a show place and it was there that he first grew the maidenhair tree (Ginkgo) from China (the first man to grow this plant from seed). He was the first to successfully grow the cape jasmine from South Africa in England. He was also the gardener that was able to grow the many plants from the South Pacific in the 1770's with the return of Captain Cook from his many adventures. James Gordon was honored by the great Swedish botanist Linneaus when he named the native Carolina loblolly bay, Gordonia.

Philip Miller Circle honors the great mid 18th century gardener and author. Sir Hans Sloane, physician to King George I, recognized the botanical talents of Philip Miller and had him appointed Curator of the Chelsea Physic Garden, the apothecaries garden in the west of London. His Gardeners Dictionary was one of the most important publications of the century and it ran for many editions. It is consulted even today by botanists and botanical historians for its plant descriptions. The Chelsea Physic Garden, begun in the 1600's, developed into a very important and influential institution under the direction of Miller. He

cultivated and carried out many experiments with the new plants that arrived in England from Colonial North America. He was responsible for much of the cotton seed that was sent to the new world in the 18th century and he is the first to correctly describe and name for science the indigo plant that was to become the important crop plant grown in South Carolina before the Revolution. This species of indigo was not native to South Carolina but grew in Guatemala and was cultivated from seed introduced into the state in the early 1740's. One of the most important trees in South Carolina was first described by Miller in his Gardener's Dictionary in 1768. That tree is the live oak, a tree that has come to symbolize the old south when draped in Spanish Moss in our coastal plain.

A young Scot came to London to work under the direction of Philip Miller and he stayed on after the death of Miller succeeding him as curator of the Chelsea Physic Garden. William Forsyth Road is named to honor this great gardener of the late 18th century. He took up where Miller left off and pushed the Physic Garden into the forefront of international plant exchange. While at the Physic Garden, Forsyth constructed what is believed to be the first rock garden in England. He used discarded rock from the Tower of London and volcanic rock brought back to England by Sir Joseph Banks from one of his expeditions. William Forsyth left the Chelsea Physic Garden to become the gardener for King George III at the Royal Gardens at Kensington. It was there that he was approached about the possibility of establishing a horticultural society. Forsyth was enthusiastic and became one of the founders of the Royal Horticultural Society of London in the early 1800's. The popular plant with yellow flowers, Forsythia, was named to honor this royal gardener.

Augusta, Princess Dowager of Wales and the mother of King George III, was influenced by her husband and gardening enthusiast, Frederick, Prince of Wales. Frederick was one of the Hanoverians interested in science and this developed into a true love of plants. Actually this passion for plants and gardening led to his early death in 1751. The Prince caught a cold while standing in the rain supervising the transplant of a tree and never recovered. Princess Augusta Road honors the efforts of his great lady in the development of the Royal Botanic Gardens at Kew. She began shortly after her husband's death, and before her son was to become King, to fashion the family's lands into what was to become the premier botanic garden in the world. She had excellent help with her plans. Her friend, John Stuart, the third Earl of Bute, was an inspiration to her and helped with the beginnings of the plan. Sir Joseph Banks, a friend of her son, King George III, helped her establish the gardens as an international repository for plants. What began as nine acres of botanic garden and a lot of faith in the future displayed by Princess Augusta, has developed today into the 300 acre Botanic Garden at Kew that has not only plants under cultivation from all the corners of the earth but also the largest herbarium in the world, with seven million specimens on deposit. Botanists from throughout the world visit the plant collections at Kew recognizing this as the center for plant systematic studies.

John Stuart Road appropriately parallels that named for Princess Augusta. Stuart, as previously mentioned, was the third Earl of Bute. He came to London and became friends with the Prince of Wales, Frederick, husband to Augusta. John Stuart helped Augusta with the ideas of the Botanic Gardens at Kew and served as her botanical advisor in all matters

pertaining to Kew. Stuart was well educated, having studied at Eton and the University at Leyden in Holland. He had a small botanic garden in Scotland on the Isle of Bute before he came to London and he obviously brought this knowledge and his charm with him when he traveled south. The young George III idolized John Stuart and showered him with honors, ultimately appointing him Prime Minister of England. John Stuart is today honored by having his name associated with the native South Carolina shrub that has been so popular in the past as a plant for our gardens - Stewartia, the silky camellia. (The plant named to honor John Stuart was given the alternate spelling of name and it has remained Stewartia rather than Stuartia.)

As the Royal Botanic Gardens at Kew began, Sir Joseph Banks stepped in to help expand their influence and to help finance several projects. He convinced Princess Augusta of the need for a professional gardener and it was with John Stuart's help that William Aiton become the manager of the Garden at Kew in 1759. He was an excellent gardener having trained under Philip Miller at the Chelsea Physic Garden. He developed an expertise for working with plants from the distant parts of the world. In addition to being a Kew Gardener, Aiton was a horticultural cataloger. His great work, Hortus Kewensis, contains the descriptions of 5,600 species of plants that he grew at Kew. Among those plants from South Carolina that he described for the first time in his Hortus were the pink lady slipper, the white water-lily, the American Holly, the Yaupon, and the Storax. His son, William T. Aiton, succeeded him in 1793 and along with William Forsyth became a founder of the Royal Horticultural Society of London. In addition, William Aiton's son was the first to describe the state flower of South Carolina, the yellow jessamine.

The "Prince of Botanists", the intellectual leader of botanical exploration and taxonomy in the 18th century, was the great Swedish botanist, Carolus Linnaeus. Linnaeus dominated his century like no other man before or since in botanical study. His publication of Species Plantarum in 1753 is the authoritative beginning for all plant nomenclature to this today. Hundreds of botanists collected plants that were ultimately sent to Linnaeus for naming. Many of our plants native to South Carolina were first officially described by him and given names that he chose. One tree above all is most important to Linnaeus and that is the linden or basswood tree. Linnaeus' father took his family name from the Swedish word for this tree. In England, this is known as the lime tree and was one of the most popular trees in landscape design in the 18th century. Today we find basswood growing along Carolus Linnaeus Road in Bradford Village. In fact, all the plants along this road were named by him.

The final Circle in Bradford Village is named for the only native born South Carolinian to appear here. Stephen Elliott was born in Beaufort in 1771 and became one of the finest, if not the finest, botanist this state has produced. A graduate of Yale University, Elliott established the first bank of the state, helped form the Literary and Philosophical Society in 1813, and was a mover in the establishment of the first medical school in Charleston in 1825. He was appointed to the first faculty serving as professor of natural history and botany. His very valuable work was published in two volumes in 1821 and 1824 under the title, Sketch of the Botany of South Carolina and Georgia. The yellow flowered Elliottia was named to honor the life of this native son.

You will see a plant that Elliott first described in his Sketch growing along Stephen Elliott Circle. That plant is our native cherry-bark oak.

The historical aspects of Bradford Village with the people and plants that have been our heritage help to give us perspective and a vision for the future. Bradford village should become a place where gardening and an appreciation of nature is an exciting reality. All the ingredients for this becoming a "show place" are here, and as we look ahead with faith and enthusiasm that the dreams and efforts of those gardeners and botanists that have gone before have inspired, we will find fertile soil and bear the fruits that are of our time.