The 17th and 18th centuries are regarded as a golden age of botanical exploration. During this time, well-known expeditions traveled to poorly known regions of the globe, searching for new species to enrich the collections of European museums and botanical gardens.

BOTANICAL ART AND PLANT EXPLORATION IN THE ATLANTIC ISLANDS

By Javier Francisco-Ortega, Ph.D.; Arnoldo Santos-Guerra, Ph.D.; Maria M. Romeiras, Ph.D.; Mark Carine, Ph.D.; Germinal Rouhan, Ph.D.; Lazaro Sánchez-Pinto, Ph.D.; Eugenio Santiago-Valentín, Ph.D. and Maria Cristina Duarte, Ph.D.
During the last 10 years, we have developed research projects focused on the history of plant exploration of the Atlantic Islands of Macaronesia (the Azores, the Canaries, the Cape Verde and Madeira). Our studies have provided insights into the logistics of these expeditions and their findings. We have found that most of these expeditions included not only naturalists, but also artists whose mission was to provide visual documentation of the extraordinary plants and animals found on these remote islands.

Sir Hans Sloane, the founder of the British Museum, made the earliest documented herbarium collections for the island of Madeira—on October 21–23, 1687. Upon his return to London, he published an account of his botanical discoveries in the West Indies (primarily Jamaica) and Madeira. His work included 13 uncolored copper engravings of Madeiran plants, which were direct copies of herbarium specimens, and therefore were not the result of drawings made in the wild.

Subsequent to Sloane’s artwork contributions, the French priest, royal botanist and astronomer Louis Feuillée was among the earliest naturalists to paint plants from the Atlantic Islands. He did so during his visit to the Canary Islands (June–October 1724). His achromatic (without color) watercolors for 30 plants and one lichen were part of a manuscript, which is kept in France’s National Museum of Natural History in Paris, that described the islands. Among the plants is Dracaena draco (Asparagaceae), the famous “dragon tree” (Plot 135 in the Garden).

One of the most important figures in the history of exploration, Captain James Cook, led three voyages (two of them around the globe). The accounts of these three trips offer textbook examples in the field of history of science. His first and second voyages provided the earliest scientific color paintings made in the wild for plants of the Macaronesian islands.

During his first trip, Cook and his crew traveled in a single ship: The Endeavour. Naturalists on this expedition included Sir Joseph Banks—founder of the United Kingdom’s Royal Botanic Gardens, Kew and president of the Royal Society—and Daniel Solander, one of botanist Carl Linnaeus’ favorite students. The only Macaronesian island The Endeavour visited was Madeira, where it called during September 13–18, 1768. Scientific illustrator Sydney Parkinson made 22 drawings of Madeiran plants, 16 of which were finished as watercolors. Parkinson’s artworks are kept in the Natural History Museum of London, and the engravings that resulted from these paintings form what is known as “Banks’ Florilegium,” one of the most remarkable collections of scientific illustrations of plants ever produced.

Two ships, The Resolution and The Adventure, undertook Cook’s second voyage. The expedition called in Macaronesian ports at Madeira (July 29–August 1, 1772), the Cape Verde Islands (August 10–14, 1772) and the Azores (July 14–19, 1775). Johann Reinhold Forster and his young son, George Forster, joined The Resolution as the main naturalist and scientific illustrator, respectively. George Forster made watercolors for 21 species—10 in Madeira and 11 in the Cape Verde Islands—that are now scattered among a few European institutions. Most of these watercolors have remained unpublished.
Prior to the invention of photography, plant hunters had to rely on paintings made by professional artists as a way to document nature and those involved in natural history discoveries.

One year after Cook’s visit to the Azores, Francis Masson, Kew Gardens’ first official collector, embarked on a plant-hunting expedition to Macaronesia. Masson stayed in the region between 1776 and 1779, visiting Madeira, the Azores and the Canaries. In 1784, Masson made a second visit to Madeira. This avid plant collector became one of the most important figures in the botanical history of these islands. Masson also had great skills as a painter. During his trips to Macaronesia, he produced watercolors of the Madeiran endemics *Clethra arborea* (Clethraceae, unknown date) and *Musschia aurea* (Campanulaceae, in 1784).

The last of the 18th-century expeditions to Macaronesia to result in botanical paintings was led by the famous French Navy officer Nicolas Baudin, who commanded the *Belle Angélique*. Spanish artist Antonio González and French botanist André P. Ledru joined the expedition. When the *Belle Angélique* was near the Canary Islands, a severe storm caused damage to the ship, forcing the crew to stop at the island of Tenerife. It took some time to find a new boat to replace the almost-wrecked *Belle Angélique*, and the expedition remained on Tenerife from November 1796 to March 1797. Both Baudin and Ledru produced manuscripts with details of this visit, which are kept in France’s National Museum of Natural History in Paris. These manuscripts have watercolors for 22 taxa. Paintings found in Baudin’s manuscript have already been reproduced; however, those in Ledru’s manuscript remain unpublished. González likely made the watercolors found in these two manuscripts.

Images of plants, landscapes and expedition participants are a critical component of field exploration enterprises. For instance, the Garden archives contain approximately 12,000 black-and-white photographs that Dr. David Fairchild took during his plant hunting endeavors. But prior to the invention of photography, plant hunters had to rely on paintings made by professional artists as a way to document nature and those involved in natural history discoveries. These meetings of science and art are important pieces of botanic history.