



Orto Botanico of Padua

By JIM SANO

The Orto Botanico of Padua is the world's oldest botanical garden having been in continuous operation since its establishment in 1545 by the University of Padua. In 1997, it was designated a UNESCO World Heritage Site for its significance as the birthplace of science and its impact on the development of numerous scientific fields, including botany, medicine, chemistry, ecology, and pharmacy. According to UNESCO, the Orto Botanico of Padua represents the "original of all botanical gardens worldwide" and "profoundly contributed" to the scientific exchanges and understanding of the relationship between nature and culture.

Padua's Botanical Garden was established to cultivate medicinal plants, constituting most of the "simple" medicines that came directly from nature. Precisely for this reason, the first botanical gardens were called "gardens of the simple" or *Horti simplicium*.

In 1545, the monks of Padua University were already growing medicinal herbs as applications for medical and pharmacological science. Francesco Bonafede, Chair of *Lectura Simplicium* (study of medicinal plants-simple medicines), wanted to lift this primitive science to a new level. Bonafede acknowledged the importance of firsthand observation of nature in educating medical

students about medicinal plants. At that time, classical texts on herbal therapy were frequently misinterpreted, leading to dangerous inaccuracies and frauds that posed a significant threat to public health. This uncertainty about these natural plant cures used in treatment prompted Bonafede to want his students to recognize true medicinal plants and use them correctly.

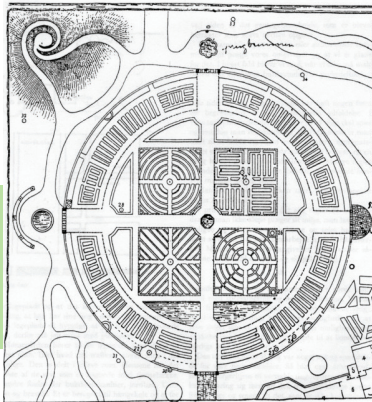
Accordingly, Bonafede approached the university's rector (who taught medical and botanical disciplines), requesting that a public garden be opened for the cultivation and study of medicinal plants and herbs, the so-called '*semplici*' (*medicamentum simplex*). The request came before the Senate of the Venetian Republic, which on June 29, 1545, decreed that a suitable plot of land should be purchased and ordered the construction of an herbarium and botanical garden to assist in researching the relationship between nature and science. These were the origins of Padua's Botanical Garden, the oldest university garden in the world.

The Padua Botanical Garden retains its original design, featuring a circular central plot symbolizing the world surrounded by a ring of water representing the ocean. The layout consists of a perfectly circular central plot, with a large inscribed square divided into four sections by

paths oriented towards the cardinal directions. To prevent frequent night thefts of its valuable and rare plants, a circular wall was built in 1552. In 1704, the entrances were redesigned and adorned with wrought-iron gates, acroteria, and pillar-mounted plant motifs. The 250-meter circular wall was completed with a railing in the first half of the 18th century.

The Garden hosts over 6,000 specimens and 3,500 species of medicinal plants spread across its 3.5-hectare grounds. The plants are arranged based on systematic, useful, and ecological-environmental criteria and housed within five distinct environments: the Mediterranean maquis, succulents, tropical greenhouse, freshwater pools fed by a thermal spring, and alpine rockery. The botanical collection is constantly growing with the addition of plants from around the world.

The Padua Botanical Garden is home to two other cultural institutions: a renowned scientific library with over 50,000 volumes and manuscripts of historical and bibliographic significance and the second-largest herbarium in Italy. The Herbarium Museum, established in 1835, holds 500,000 samples of dried plants, including algae, fungi, mosses, lichens, rare plants, medicinal plants, insectivores, poisonous plants, succulents, aquatic plants, ornamental plants, and historical plants from around the world. Some notable historical specimens include the first potato grown in Europe in 1590 and a palm tree planted by the German poet Goethe during his visit in 1786, which he used as inspiration for his theory on the metamorphosis of plants.





The University of Padua's Botanical Garden has been pivotal in advancing medicine and botanical science for centuries. It has also played a crucial role in fostering international scientific exchange. In addition, it has served as a hub for some of the greatest minds in these fields, including Alberto Magno, the patron saint of natural sciences, and Giacomo Dondi Orologio, known for his expertise in both clock design and medicine.

In 2014, the Garden debuted a new Biodiversity Garden section featuring five eco-friendly greenhouses showcasing the different climates from across the planet. The Biodiversity Garden is home to approximately 1,300 species, each living in environments that mimic the conditions of their natural habitats, ranging from tropical to sub-humid, temperate to desert climates. In addition, these greenhouses showcase the centuries-long relationship between plants and human-kind, offering a fascinating journey through botany and anthropology. □

