

WORLD HERITAGE LIST

Padua (Italy)

No 824

Identification

<i>Nomination</i>	The Botanical Garden (Orto Botanico), Padua
<i>Location</i>	Veneto Region, Province of Padova
<i>State Party</i>	Italy
<i>Date</i>	11 September 1996

Justification by State Party

The *Orto Botanico* of Padua is an ancient monument of inestimable value both architecturally and botanically. Over the centuries it has undergone the not always harmonious interaction of these two elements, which make it not only the oldest existing botanical garden but also a point of reference for all the others.

[Note The State Party does not make any proposals in the nomination dossier concerning the criteria under which it considers the property should be inscribed on the World Heritage List. However, in the tentative list of Italy, sent to the UNESCO World Heritage Centre on 28 June 1996, **criteria i** is quoted.]

Category of property

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *site*.

History and Description

History

Many distinguished scholars in the disciplines of botany and medicine have worked at the University of Padua since its foundation in 1222. Among these were Alberto Magno, who obtained his degree there in 1223 and went on to become the patron saint of the natural sciences, Pietro d'Abano (1250-1316), Giacomo Dondi Orologio (1298-1360), and Domenico Senno (1461-1531).

In 1533 Francesco Bonafede (1474-1558) was appointed to the Chair of *Lectura Simplicium* at the University by the Most Serene Republic of Venice. In 1543 he petitioned for the creation of a model herbarium and botanical garden, which was established by decree of the Most Serene Republic on 29 June 1545.

Work began immediately on a plot belonging to the Benedictine Order, whose monks were probably already raising medicinal plants there. Implementation of the project was assigned to Daniele Barbaro, translator of the *De architectura* of Vitruvius.

The garden has remained here ever since that time. Various additions have been made in the intervening centuries - a pumping installation to supply ten fountains in the 17th century, four monumental entrances in 1704, and new masonry greenhouses in the late 18th and early 19th century. An arboretum, an English garden with winding paths, and a small hillock, known as the Belvedere, were also added around this time.

Description

Barbaro's intention was to lay the 22,000m² of the irregularly shaped area out in the form of a tiny paradisaical world surrounded by a ring of water (the Alicorno Canal) to represent the ocean. Within he planned a circular *Hortus Conclusus* 86m in diameter, which in turn enclosed a 41m square plot. The entire garden was divided into four quadrants by pathways at right-angles to one another, running to the four cardinal points.

Early documents show that the Botanical Garden was enclosed by a high brick wall, whilst the four smaller squares created by the two pathways cutting the central square were embellished with geometric flower beds, bordered with stone, in each of which a single plant species was grown. This basic layout survives to the present day, though with many later additions.

When the four entrances were refashioned in 1704, the wrought-iron gates giving on to the inner circles and the four *acroteria* were placed on the eight pillars and surmounted by four pairs of wrought-iron plants (*Fritillaria*, *Ananas*, *Lilium*, and *Yucca*). The Istrian stone fountains outside the round garden date to the same period and represent Theophrastus (south gate) and Solomon (outside the east gate). The elegant balustrade, which runs along the top of the entire 250m of the circular wall, was also completed during the first half of the 18th century.

The heated stone-built greenhouses replaced mobile conservatories used for protecting delicate plants during the winter, which were located on the south side of the ring. Some of the greenhouses, to the north of the *Hortus Conclusus*, still retain their original heating systems.

The Botanical Garden also houses two important collections. The Library contains more than 50,000 volumes and manuscripts of immense historical and bibliographic importance, as well as a collection of over 1500 portraits and photographs of botanists from the 13th century to the present day.

The herbarium is the second most extensive in Italy, with 416,500 dried specimens, including reference collections of Italian and Veneto flora, Dalmatian flora (R de Visiani), diatoms (A Forti), and P A Saccardo's mycological herbarium, used as the basis of his monumental 25-volume *Sylloge fungorum*.

The Garden has traditionally collected and grown particularly rare plants, which have then been introduced into the rest of Europe. A specimen of *Vitex agnuscastus* L. listed in an inventory of 1550 lived until 1984 (its remains are preserved for the sake of nostalgia). The specimen of *Chaemerops humilis* L. var. *arborescens* dates back to 1585 and was studied by Goethe during his visit to Italy in 1786, later to be used as the basis for his famous 1790 essay *Versuch die Metamorphosen der Pflanzen zu erklären*. The *Platanus orientalis* L. planted in 1680 is the oldest documented specimen in Europe.

Currently there are over six thousand species in the Garden, arranged according to systematic and utilitarian criteria (medicinal plants, essence-producing plants) and ecological-environmental criteria (peat-bog plants, Mediterranean *maquis* flora, Alpine flora). There are also thematic collections (carnivorous, succulent, aquatic, poisonous) and single-genus collections (*Salix* L., *Allium* L., *Ornithogallum* L., *Aster* L., *Campanula* L.). Of particular interest is the collection of Triveneto plants which are rare or threatened by extinction, some of which have been successfully reproduced in the Garden.

Management and Protection

Legal status

The Orto Botanico is apparently not protected legally *per se*, but it is bordered by several properties protected under the provisions of the basic Italian cultural heritage protection Law No 1089/1939, such as the Basilicas of St Justina and St Anthony, the Prato della Valle Circus, and the Pontecorvo walls. Most of the eastern boundary is covered by Ministerial constraint under the same law, whilst a 40m belt around the entire Garden is protected by the City Administration under a law approved in 1995.

The heights of buildings around the Garden are controlled so as not to have an adverse impact on it.

Management

The Botanical Garden is the property of the Italian State, but is on permanent loan to the University of Padua. It is open to members of the public with special tickets and to scholars and students from all over the world without charge.

Since its foundation in 1545 the individual responsible for the management and upkeep of the Garden is the *Praefectus Horti Botanici Patavini*, who is appointed by the Rector of the University. For the past two decades the *Praefectus* has been supported by a Technical-Scientific Committee composed of distinguished experts in botany. The Rector is represented on this committee by specialists

in environmental, historical, and architectural matters.

The University of Padua maintains a technical staff of fourteen permanent employees. It is responsible for the maintenance of the Garden and the infrastructure of the greenhouses, and also receives modest subventions from the municipal authorities.

The immediate surroundings of the Garden were adversely affected by unsympathetic development before protection was given to it by designation under the 1939 Law. Industrial buildings were erected to the north and east, whilst to the south the beautiful "English" garden created in the 19th century by Giuseppe Cecchini Pacchierotti was disfigured by the construction of several large buildings. Currently there are plans for the replacement of some low industrial buildings by two residential blocks with a large underground garage.

Conservation and Authenticity

Conservation history

The Garden has been continuously maintained over its long history. Some poor restoration was carried out on the south-eastern sector of the balustrade in the 19th century following severe storm damage. This was again badly damaged when two large trees were uprooted during two storms in 1989; this time the restoration, which was completed in 1993, was carried out according to acceptable contemporary standards. The remainder of the balustrade has also been cleaned.

An architectural restoration project is currently under way under the supervision of the Technical-Scientific Committee which will cover most of the buildings on the site. A small museum and adjoining service area are currently under construction

Authenticity

There can be no dispute regarding the authenticity of the Garden. It has been in continuous use for its original purpose ever since it was created in the 16th century. The modifications carried out to the original design have kept pace with developments in botanical and horticultural theory and practice, but overall it clearly retains the original design and structure. The new museum building will not significantly affect the spatial distribution or authenticity of the Garden.

Evaluation

Action by ICOMOS

An ICOMOS expert mission visited the property in January 1997. The expert involved was the former President of the ICOMOS International Committee on Historic Gardens and Sites.

Qualities

The Botanical Garden of Padua is the oldest surviving example of this type of cultural property anywhere in the world, exceptional by virtue both of its high scientific value in terms of experimentation,

education, and collection and of its layout and architecture. Its herbarium and library are among the most important in the world.

Botanical gardens have played a vital role throughout history in the communication and exchange not only of ideas and concepts but also of plants and knowledge. The influence of the Orto Botanico of Padua on the botanical gardens established throughout the world in succeeding centuries is acknowledged to have been paramount.

Comparative analysis

The only botanical gardens of comparable age are those of Pisa and Florence, but the Padua example is the earliest and the only one which retains its original setting and layout.

ICOMOS recommendations for future action

ICOMOS urges the utmost vigilance on the responsible authorities to ensure that the surroundings of the Garden are fully protected from pressures of development and construction. It also requests the State Party to designate the Garden without further delay under the provisions of Law No 1089/1939.

It also urges the responsible authorities at national, regional, and local level to give serious consideration to the financing of the Garden, which is minimal and represents a threat to its continued existence.

There is also a pressing need for the formulation of an integral restoration programme and policy for aspects such as the replacement of old trees, new planting, treatment of paths and kerbs, and restoration and conditioning of certain areas and minor architectural elements (pergolas, benches, and walls). Consideration should also be given to the possibility of initiating selected archaeological investigations in order to establish the original level of the Garden.

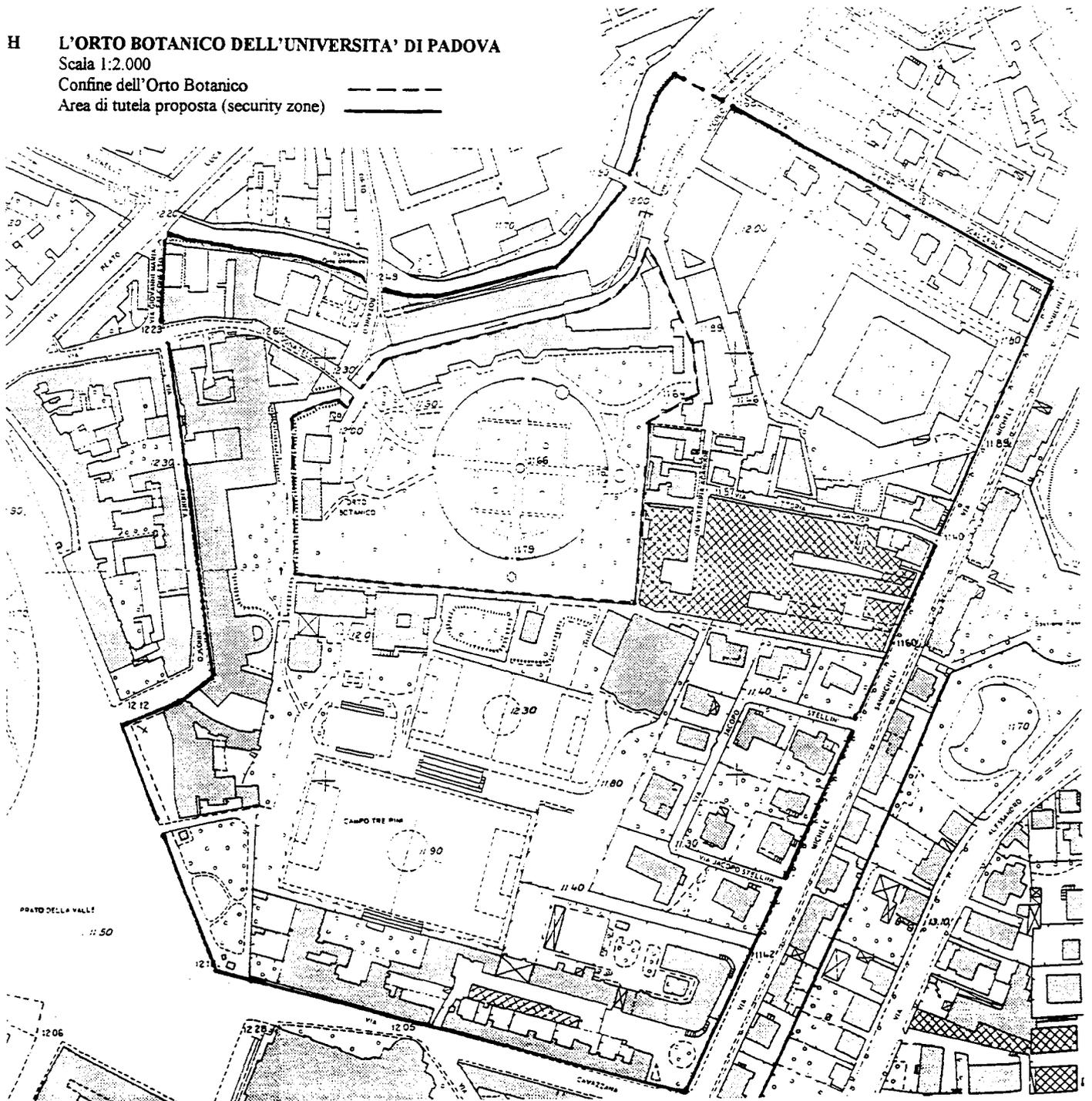
It recommends that the World Heritage Committee should request the State Party to provide evidence of this programme having been prepared and put in hand as soon as possible.

Recommendation

That this property be inscribed on the World Heritage List on the basis of *criteria ii and iii*:

The Botanical Garden of Padua is the original of all botanical gardens throughout the world, and represents the birth of science, of scientific exchanges, and understanding of the relationship between nature and culture. It has made a profound contribution to the development of many modern scientific disciplines, notably botany, medicine, chemistry, ecology, and pharmacy.

H L'ORTO BOTANICO DELL'UNIVERSITA' DI PADOVA
Scala 1:2.000
Confine dell'Orto Botanico 
Area di tutela proposta (security zone) 



Padoue / Padua :
Plan indiquant la délimitation du site et la zone de protection /
Map showing boundary of site and protection zone



Padoue / Padua :
Vue aérienne /
Aerial view