

OPENING HOURS

Spring (1st March - 15th June): 9.30 - 18, the ticket office closes at 17

Summer (16th June - 15th September): 9.30 - 19, the ticket office closes at 18

Autumn (16th September - 15th October): 9.30 - 18, the ticket office closes at 17

Winter (16th October - 28th February): 9.30 - 17, the ticket office closes at 16

1st November - 28th February: closed on Mondays

Closed on 25th December

Open on 1st January

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Corso Montecarlo 43 | La Mortola 18039 Ventimiglia (IM) | Italia

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Università
di Genova

Giardini Botanici
HANBURY
VENTIMIGLIA

**VISIT
GUIDE**

THE GARDEN AND ITS HISTORY

The 45 acres (18 hectares) of the Hanbury Botanical Gardens occupy the whole of Cape Mortola. Approximately half of this area is cultivated as garden, with the remainder native vegetation dominated by *Pinus halepensis*.

Plants from all over the world are able to acclimatize in the shelter afforded by the proximity of the nearby mountains and sea.

In 1867 Thomas Hanbury purchased the land together with the deserted "Palazzo Orengo", thanks to a fortune acquired in China from trading in silk, cotton, tea and property. The 11th century Palazzo had been built by the Lanteri family on the remains of an ancient Roman villa. The landscaping of the new gardens was mainly the work of the German gardener Ludwig Winter.

Thomas Hanbury's elder brother Daniel contributed significantly to the creation of the Garden. Daniel Hanbury was an important botanist and pharmacologist and provided the scientific knowledge to create the acclimatization garden. Through his proficiency in botany and his numerous

botanical acquaintances at home and abroad, he was able to obtain rare and valuable medicinal and useful plants.

In the early years, (from the end of summer 1869 to the first months of 1872) Thomas Hanbury, still involved in his business activities, left the continued development of the garden to his brother. In this period many plants that were not only decorative but also of pharmaceutical and economic interest were introduced.

After TH's death and the end of World War I, between 1925 and 1939 important changes took place at the hands of Dorothy Hanbury, daughter-in-law of the founder and wife of his son Cecil. After having suffered serious damage in the war, the whole property was sold to the Italian State in 1960, and then in 1987 was entrusted to the University of Genoa.

Nowadays the Hanbury Botanical Gardens are managed by the University of Genoa. The Gardens are within a Regional Protected Area, and include a land section and a sea area called the Marine Protected Area of Cape Mortola - Area di Tutela Marina di Capo Mortola.



The Regional Protected Area manages two Special Areas of Conservation (ZSC), one land-based and one marine, within the Natura 2000 ecological network, which contributes to the protection of European biological diversity according to Habitats Directive (43/1992 / EEC). Cape Mortola, for its paleontological value, lies within the territory of the Mediterranean Alps, a candidate for UNESCO World Heritage.

Hanbury Botanical Gardens have:

- A collection of over 3,500 varieties of different plants
- A natural heritage of paleontological interest
- Elements of historical, artistic and architectural interest
- Small specialist library
- Herbarium
- Laboratory for seed conservation and Germplasm Bank
- Small Botanical Museum, with a collection of wood specimens, display of tools and objects of historical and handicraft interest
- Historical conference hall

A garden according to nature

Hanbury Botanic Gardens are one of the main acclimatization botanical gardens in the mediterranean area. Mediterranean acclimatization gardens started in the early 1800s with the introduction of exotic plants and subsequent attempts to grow them in the field through the most appropriate techniques. The Riviera climate favoured the outdoor cultivation of subtropical and tropical plants introduced from European colonies. The fact that these plants flowered in winter attracted the interest of those members of the European nobility who had recently discovered and fallen in love with the area.

From 1850, thanks also to the new railway from Paris to the Mediterranean coasts, the English discovered the French and Italian Riviera. The climate, so different from that of England, permitted outdoor cultivation of plants which in England would have required greenhouses. It was also possible to have in winter the same plants that in England grow in summer.

One of the things Thomas Hanbury repeated to guests and gardeners was: "Never go against Nature". The thought

OUR MISSION

Protecting and enhancing the cultural heritage (botany, history, art, architecture, landscape, archaeology)

was born from the awareness that any garden is subject to the local climate: inevitable if one wants to avoid against nature with continuous watering and maintenance. The only alternative is what suggested by Thomas Hanbury: do not fight the drought and leave dry apparatus on the plants. Although this make look unsightly according to the traditional view, this will help the plant protect itself from the heat.

Nowadays the precepts of the original owner are followed by the University in managing this botanic garden.

A botanical garden is different from a recreational garden in which the aesthetic aspect all-important . Here, the plants are cultivated following their natural reproductive cycle. This means we have to leave old foliage and flowers on the plants. For example, the palms and the yuccas are left as they would be in their natural habitat. We leave old leaves wrapped around the trunk protecting it from both heat and cold weather: this absence of pruning often gives these plants an elegance lost in many Riviera gardens.

Acclimatization means that exotic plants are introduced gradually to let them adapt to living in our conditions and environment.

The Mediterranean climate can tend to have a long period of drought during summer: in general from the middle of June until the arrival of the first rain in September. During this period the plants rest because they have to protect themselves



from transpiration. So not only do they stop growing but their leaves wither. Some fall.

There is a fine balance between watering these plants for their survival and over-watering them (which brings on unnatural forced growth in the wrong season and also wastes precious water).

During the summer season the fruit is ripening and is left on the plants until the seeds are ready to be collected and sent to other gardens and botanical institutes all over the world.

Visitors should not be surprised that some areas are not looking their best and that some dead-looking seed pods remain on the plants to ripen (for example *Aloe* and *Agapanthus*).

Thomas Hanbury wrote that the summer offered the opportunity to close the garden to visitors and reopen it after the first rains of September, but this never happened, because some plants from arid climates come into their own during the summer and in any case many people do not have the opportunity to visit this corner of the Riviera in other seasons.

Climate

The Gardens enjoy a Mediterranean climate with hot, dry summers.

January is the coldest month (average temperature 9,2°C, average minimum temperature 6,2°C) and the minimum temperature rarely falls below zero.

August is the hottest month: the average temperature is 23,5°C and the average maximum temperature is 27,9°C.

It rains mostly in autumn: October is the wettest month with an average of 130 mm.

The average annual rainfall is about 791,6 mm. (data 1979-2010). These environmental conditions affect vegetation and flowering. As the autumn rains come, the blooms begin and continue in an ever-increasing range until mid-April or early May. In summer only some tropical plants are in bloom.

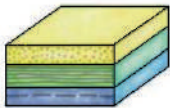


Geology of Cape Mortola

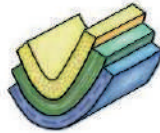
The different rocks and fossils forming the stratigraphic section of Cape Mortola reveal the evolution of an ancient marine environment in a time interval spanning from 47 to 38 million years. Paleontological richness and diversity make Cape Mortola a site of outstanding value. The promontory of Cape Mortola is largely composed of carbonate rocks including “*calcarenites of Cape Mortola*”

The originally flat-lying and sub-horizontal beds are deformed in a narrow fold (see drawings and explanations) as a result of the late phases of the thrusting of the Alpine chain. The *flysch* and *marls* (yellow and green in the figures) are at the core of the fold, but these rocks are not observable because they are eroded or hidden by the terracing of the Gardens. The limbs of the fold are formed by the hard, more erosion-resistant rocks of the; these rocks are visible and form the two points of the promontory.

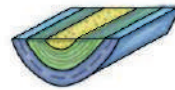
1) At the beginning the beds, younger from bottom to top, were flat and sub-horizontal



2) The beds were folded during the Alpine orogeny



3) Over time, the folded beds emerged, were exposed to weathering and erosion, reaching the current conformation



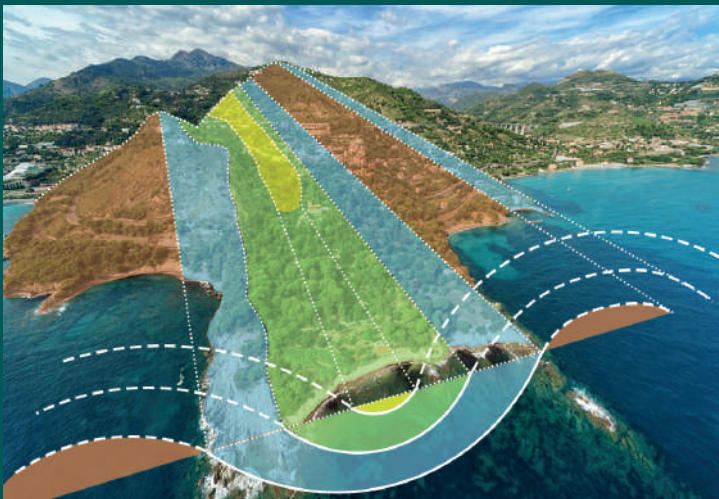
(rich in fossils - blue in the figures), “*Olivetta S. Michele marl and silty marl*” (green in the figures) and “*Ventimiglia flysch*” (yellow in the figures). These rocks have a skeletal fraction referred to gravels and sands (*calcarenites*), to muds (*limestones, marls, and siltites*) belonging to a shallow sea existing here in the Middle Eocene.

In the western tip, there is the largest outcrop of fossils, largely consisting of the remains of animals (numulites, molluscs, corals, sea urchins) or traces made by marine animals (*ichnofossils*).

Cape Mortola is also part of the **karstic system** present in the westernmost part of Liguria. In good visibility

conditions, from the cape is possible to observe a remarkable example of the system: between Punta Garavano and Cape Mortola the “*Polla Rovereto*” is located, a underwater karstic resurgence spring that gushes out at a depth of about 30 metres and creates a discontinuity in the density of water visible on the surface.

This paragraph on geology has been extrapolated from the text: the geology of Capo Mortola, by M.C. Bonci, R. Cabella, M. Piazza & S. Zanella, drawings by C. Minuto, L. Ghisu & E. Lutaj, realized within the project n. 376 Interreg V France-Italy (ALCOTRA) 2014-2020: “Nature and Culture for Everybody”



SUSTAINABLE GARDEN

In a garden soil, water, temperature and sunlight are the factors which determine the character of the vegetation, and Nature severely punishes any neglect of them

No one understood this better than Sir Thomas Hanbury, with his keen observation and long experience. “**Never go against Nature**”, was his constant thought in laying out and planting his garden.

We adhere to this principle today in the maintenance and management of this garden. For some years the Gardens have been committed to spreading sustainable horticulture principles and techniques: **renewable energy, biological and integrated control of invasive species, cultivation practices aimed at saving water and reducing soil loss.** Choice of plants follows ecological criteria, in consideration of the different micro-environmental conditions.

All gardeners and garden lovers dream of a garden free from seasonal weeding and irrigation. This can be facilitated by covering flower beds with a thick layer mulch, obtained by layering organic or inorganic material on the ground or around the plants. Good **mulching** can **reduce water loss** through evaporation by 70% and it reduces weed growth and **soil erosion**.

Mulching with organic material such as compost, bark, straw, chopped wood, is cheap. It also provides nutrient enrichment to the soil. However, it must be renewed at regular intervals. The use of natural materials prevails in the botanical gardens because it often allows the **reuse of waste material** from processing.

This also includes the use of **compost**. Everything that needs to be disposed of, such as twigs from pruning, herbaceous material, and dry branches, can be reused as compost, a fertilizer with almost no costs. It is formed through

a process of decomposition and transformation similar to what occurs in the woods in nature and leads to the formation of humus.

Water is becoming scarce in areas of continuous expansion, so it is necessary to **avoid waste and optimize consumption**. Some simple systems such as the choice

of species and cultivation techniques can contribute effectively to this purpose. Moreover, if properly highlighted, they add visitors' awareness of issues related to water consumption. Mulching is also effective at reducing soil loss and degradation, and containing weeds and offers many other benefits; and prevents soil compaction. Inorganic mulching uses pebbles, gravel, newspaper and, as is often used in agricultural crops, plastic films. The results are not always good-looking.

After careful weeding and elimination of weed roots, a layer of organic material at least 10 cm thick is distributed. More mulch is added every year, or as needed. This practice also contributes to solving the problem of discharge of pruning waste and mowing, because, with mulching, they cease to be waste and become real resources. Earthworms are among the most important organisms for the formation of humus. By mixing the different layers, they create a micro-porosity that increases the absorption of



rainwater and provides oxygen. The walls of the tunnels are covered with mucus and bacteria that fix atmospheric nitrogen, making it available to plants. They also facilitate root penetration. Humus storage capacity, associated with that of tunnel drainage, has the advantage of considerably reducing the need for irrigation and also helps reduce erosion.

Compost maturation time is variable depending on climatic conditions and the product required. Here in Ventimiglia, compost is ripe after 6-9 months.

In this garden as in many botanical gardens, attention is paid to **sustainability in plant and animal infestation control**. To safeguard plants from the attack of *phytophagous animals* (animal pests), **integrated control** and **biological control techniques** are used, trying above all to preserve and strengthen the defences already present in the natural environment. In specific cases, **auxiliaries** (ie insects and other invertebrates that prey or parasitize the phytophagous) are released. Some act as pheromone traps, which attract the males of harmful species, as in the case of the citrus miner, a moth of Asian origin that feeds on the leaves of citrus fruits. The objective is to achieve a balance between "enemies and allies" of plants, to reduce attacks below the damage threshold.

Hanbury Botanical Gardens are a part of a **Regional Protected Area**. The **Management Plan** of the Garden, drawn up by the University (managing institution), limits the use of extremely heavy cultivation techniques and environmental impact, and designates those activities related to environmental sustainability already in place, or planned for the future:

- strategies for energy saving
- waste management
- reduction of water use: orientation towards Mediterranean Gardening, and increase in xerophilous species (xeriscaping)
- integrated control.







VISIT ROUTE



En

The **entrance gate** was built at the end of the 19th century by the architect W.D. Caroe. The keystone of the arch carries a Chinese ideogram pronounced "pho" which means "happiness". It was engraved following the visit in 1879 of Kwo Soong Tao, the Chinese ambassador to England.



Entrance gate

On the right, as you go down the steps is a *Ficus rubiginosa* from Australia. A little further down is *Tecoma capensis* from South Africa and a *Oreopanax dactylifolius* from Mexico. Further on the left is a Kei apple (*Dovyalis caffra*), a South African tree from whose acidulous yellow fruit is suitable for making jam, and a yew (*Taxus baccata*).

At the bottom of the steps there is a panoramic view over the valley of the Rio Sorba, overlooked by the rock face under the **Punta della Croce**.

In the foreground is a large *Pinus canariensis*. The path then curves left and you see some species of aloe and then, hanging over the wall, *Drosanthemum hispidum*, which flowers in spring and opens when the sun shines.

After passing near a group of yuccas you reach a semicircular terrace. Turn left to pass a fountain called **Fontana Nirvana**, planned by Ludwig Winter and built in 1872. An attractive group of *Agave attenuata* grows out of the wall above the water. This species has not needed to develop thorns for



Fontana Nirvana

defence because it lives naturally on rock faces. The agave flowers rarely. The flowering stems grow upwards at first and then curl downwards, reminiscent of an elephant's trunk.

Opposite are other species of the genus *Agave*. Agaves are succulent plants that come from the hot regions of Northern and Central America. In most varieties the rosette of leaves dies after flowering. Some, such as those found in this bed, resume vegetating after flowering. They have a great variety of leaf margins: sometimes smooth, sometimes dentate or filamentous (*A. filifera*); and spines which may

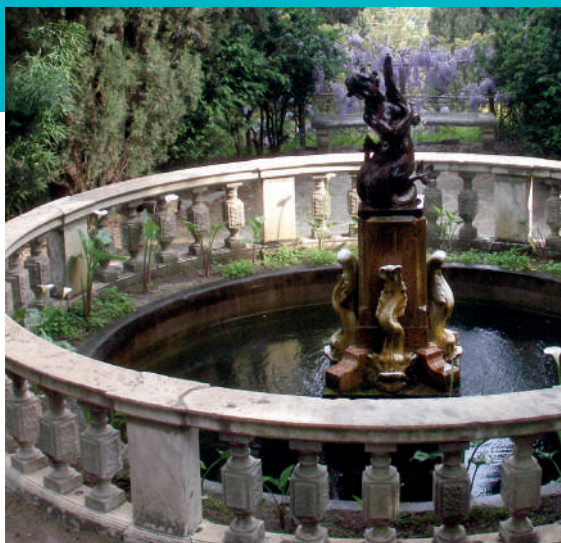
Drosanthemum hispidum



be either stiff or not. In the centre of each rosette the young leaves unroll, leaving the mark of their edges on the adjacent leaves.

At the end of the first flight the view opens out over the area of the *Aloë* collection. You then reach the part called **Quattro Stagioni** where there is a little temple known as the **Tempietto**. This was brought here in 1947 and comes from the English park of Kingston Maurward, another property owned by the Hanbury family. Dorothy Symons-Jeune, Thomas Hanbury's daughter-in-law, is buried beneath it.

Below the little temple the view opens over the **Mermaid Fountain**. The steps which lead directly downhill were built during the early construction of the gardens and represent an important axis. Above you may observe some large specimens of *Agave*. Most of these agaves belong to a major subdivision of the genus which includes species with big flowering stems (up to 35 ft or 10 metres) branching like a can-



Mermaid Fountain

delabrum. The vegetative life span of an agave before it eventually flowers and dies is variable and depends on the variety and growing conditions.

Cutting the basal leaves stimulates the production of new ones and reduces the life of the plant. In the Mediterranean zone some species flower after about ten years but other species need fifty to sixty years to flower. Here you can find some Central American cacti.

To the right of the agaves there is a fine group of *Nolina*. To the left there is a specimen of *Dasyllirion serratifolium* at the base of a group of *Yucca elephantipes*, obscuring the **Cycas Avenue**.

If you take the left hand level path that turns eastwards you reach the area of the *Aloë* collection. Aloes come from Africa and the Arabian Peninsula and their healing properties have been known since ancient times.

The Egyptians brought them from southern merchants and started to grow them. Their easy growth has helped them to spread.

The collection is composed of some species of the genus *Aloë* and demonstrates their large variety of shapes. Some varieties are tree-like (*A. bainesii*) with a branched trunk, which in its natural habitat can grow up to 65ft (20 meters). Others have an erect



Tempietto delle Quattro Stagioni



stem in the shape of a column (*A. x principis*), while still others have stems that are divided at their base and form large clumps (*A. arborescens*). Others have slim curving stems (*A. striatula*), or stems that creep along the ground (*A. mitri-formis*). The flowers, joined together in flowering stems, show a large range of reds, oranges and yellows, and open between winter and late summer

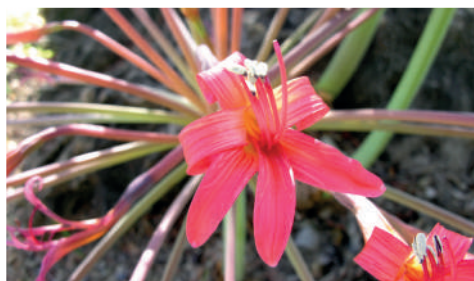
according to the variety.

One large specimen of *Yucca faxoniana* (also known as *Yucca australis*) from Mexico, hangs over the path. Its spectacular pendulous flowers appear in June.

To the right of the stairway is a young specimen of *Xanthorrhoea preissii*, also known as Blackboy, from Australia. The appearance recalls *Dasyllirion*; the

black trunk suggests that the plant is fire resistant, very frequent in its semi-desert bush habitat. Indeed, fire has a "beneficial" effect on the conservation of *Xanthorrhoea* in natural environments as it stimulates flowering, production and germination of seeds.

At the end of the steps the path turns towards the centre of the gardens. In September *Brunsvigia josephinae*, a beautiful South African plant, flowers at the base of some olive trees. It was first described by Pierre-Joseph Redouté and dedicated to Joséphine



Brunsvigia josephinae

Bonaparte, Napoleon's wife.

Further on, a large specimen of *Schotia brachypetala* hangs over the pergola. This tree is from South Africa and flowers abundantly in June when its foliage turns carmine.



Aloe arborescens var. *arborescens*



Cupressus lusitanica

Then to the left the path passes under the branches of a monumental specimen of *Cupressus lusitanica* whose seeds were given to Sir Thomas by Gustave Thuret in 1869.

A rare species in Europe, the tree is in critical condition due to two lightning strikes that struck it a few years ago: we are trying to keep it alive as long as possible due to its high value and status of Monumental Tree.

Further on to the left you see the Australian *Melaleuca cuticularis*. Opposite, a rare specimen of *Araucaria cunninghamii* stands out against the sky. This plant is a native of Queensland, and was sown by Daniel Hanbury, Thomas's elder brother, in June 1872.

An ancient gateway gives access to the piazza in front of the Palazzo.

The Palazzo was built by a junior member of the Lanteri, a Milanese family (after returning from the First Crusade in the 11th century), in order to enlarge the family possessions. In 1620 the last member of the family, a nun named Sister Violante, sold the estate to the Oregos, who kept it until 1844.

The building originally consisted of a compact base with a medieval tower and a loggia on the second floor, in typical style of Ligurian style.

On 1st May 1867 Thomas Hanbury signed the sale contract with the owners Ambrosina Grandis and her mother Devotina. After the purchase restoration work soon began. The first stage of restoration changed the building's orientation: the old entrance on the southern side of the Palazzo was walled up and a new one was opened on the northern side. The new door was highlighted with the

construction of a loggia. In the centre of the arch, you can see the year of this first rebuilding: 1867. The restoration of 1876, with extensions and the raising of the tower, gave the Palazzo its present-day appearance.

As an admirer of Roman and Italian art and culture, Thomas Hanbury enriched the Palazzo with various works. Some Renaissance bas-reliefs can still be seen today on the external walls. Under the porch is a mosaic representing Marco Polo and carrying with the painter's signature and date (Salviati - 1888).

On the piazza is a Japanese Bell which comes from a Buddhist temple. The main engravings are of a dedication, and below the list is the name of the bell's place of origin: Kanda (a Tokyo suburb) the date 1764.



Ancient gateway

Among the various elements of exotic decoration of oriental origin which form part of the Hanbury collection and which have been since lost, there is a bronze cup topped by a dragon and placed near the so-called **Dragon Fountain**.

The **"Moorish Mausoleum"** is the only element of Moorish style still in place.

The **Topia**, a long pergola with stone pillars, starts opposite the gateway and crosses the slope on the level. Along the Topia there is a rich collection of plants including members of the Bignonia family. Other climbers are notable: *Rosa banksiae* *forma lutescens* brought to Europe from China by Sir Thomas in 1870; *Semele androgyna* from the Canary Islands, *Homalocladium platycladium* with its ribbon-like flattened stems, and which comes from the Solomon Islands, *Tetrastigma voinierianum*, a Vietnamese plant belonging to the grapevine family, and a very old specimen of *Rosa 'Lafayette'*.

After crossing the steps leading to the **Mermaid's Fountain**, please note: *Clematis armandii*, *Acer gri-seum*, *Rosa 'Purezza'*, *Thunbergia coccinea*, *Podranea ricasoliana*, *Puya chilensis*.



Melaleuca cuticularis

From the **Rondò Vecchio** at the end of the pergola, there is a panoramic view stretching from the **bay of Latte** to Ventimiglia and Bordighera as far as **Cape Sant'Ampelio** the southernmost point of Liguria.

A specimen of *Eucalyptus sideroxylon* (from the old Greek language *syderos* = iron; *xylon* = wood) hangs over the pergola. Its bark is persistent (unlike others such as *Eucalyptus globulus* and *E. camaldulensis*, which lose their outer bark, which has the function of protecting the trunks and branches), and its wood is so hard that it is used in Australia as a building material and to produce railway sleepers.

Backtrack a little and go down the steps to enter an area of succulent plants. In this bed there are plants belonging to several families that come from different continents and which share common survival strategies. In order to adapt to the severe environmental conditions of arid and desert areas, either their leaves are succulent (*Agave*, *Aloë*, *Sedum*) or their stems (*Cactus* and *Spurge* families).

On the right of the path, note two ancient specimens of *Beaucarnea stricta* and *Beaucarnea recurvata*. These two plants are particularly old, and formed part of Thomas Hanbury's original collection. They were purchased as already-adult plants. The specimen of *Beaucarnea recurvata* comes from the



Rosa 'Lafolette'



Cactus area



garden of Prince Troubetzkoy and was planted here in 1888. Together with some olive trees they are the oldest plants in the Hanbury Botanical Gardens: we estimate that they have now reached the age of three hundred years.



Beaucarnea stricta and *Beaucarnea recurvata*



Dragon Fountain

Below, the path leads left to the **Rondò Nuovo**. On the right you can see two cork trees (*Quercus suber*).

The path then continues to the **Dragon Fountain**. In the middle of the basin there is a Japanese bronze bought by Sir Thomas from an antique dealer in Kyoto in 1893. On the edge of the fountain is papyrus (*Cyperus papyrus*).

The Egyptians made paper from the stalk of this plant. Papyrus is a tropical plant and in the North Mediterranean area it can be cultivated only in particularly sheltered places. This niche is the northernmost point where acclimatization is possible.

At the top, in the opening of an old cave, can be seen **the Slave**, a marble statue from the school of the famous Italian sculptor Antonio Canova.

Before the changes made by Dorothy Hanbury, the Dragon Fountain was situated in the upper corner of the **Japanese Garden**. In the remaining part of this area (you have to go down the first flight of steps and then turn right) you can see wisterias, irises and prunus. Over time this area was modified, and several different species were added.

The pathway under an arch leads you to the lowest part of the **Giardinetti**. It consists of three terraces connected to one another by steps and built inside

the ruins of an old building. There are no records describing the building's original use.

The Giardinetti comprise three small formal gardens planned by Lady Dorothy as isolated, tranquil spaces for herself and her family, protected by their original walls. Nowadays they are freely accessible; here you can admire ancient varieties of roses and peonies.

From the next arch, if you go up a few steps and turn left, you enter the **Scented Garden**. It consists of two terraces built in 1928 and has many scented plants.

The Perfumed Garden was created by Dorothy Hanbury in a well-situated place, protected from the wind, and particularly pleasant during the winter months. Previously a collection of succulent plants grew on a rocky slope here.

To the west Dorothy built the "**Casa del Sole**", (sum-



The Slave Statue



Paeonia suffruticosa

From the mausoleum the Cypress Walk leads directly down to the **bridge over the Roman Road**. Another route gives access to the so-called **Acacia Reserve**: a wooded area with numerous species of Acacia, commonly called Mimosas. This route leads to the **Fontana del Fauno** and the **tennis court**.

You can also turn back into the Cypress Avenue, beside the *Ephedra altissima*, in order to go down the steps to the **New Vista**, designed by Dorothy Hanbury in the early 1920s as a new visual axis. It splits the ancient Australian Wood. On the left, a large specimen of *Eucalyptus camaldulensis* and (opposite) *Melaleuca preissiana* are part of the original landscaping.

The jars (used to conserve oil) were bought in the nearby town

of **Pigna** (inland from Ventimiglia) in 1923. Turning right you pass a specimen of *Eucalyptus citridora*,

mer house) in a hot, sunny spot, with large windows, used as a retreat on the coldest of winter days, and enjoying fragrance from the flowers - bitter orange, honeysuckle, jasmine, roses, akebia, heliotrope, wintersweet - and from the leaves - rosemary, sage, thyme, marjoram, lavender, geranium - and from the wood (*Calycanthus occidentalis*).

Retracing your steps and going down a few, on the left you will find the **Cypress Avenue**.

The Cypress Avenue crosses the whole breadth of the garden and constitutes the central part of the original access to the Palazzo when the entrance was on the ancient Roman road.

At the beginning of the avenue a cypress is wholly covered by *Ephedra altissima*, an important medicinal plant from Morocco.

At the end of the steps you come to the **Moorish Mausoleum**, a oriental-style temple planned and built in 1886 by the architect Pio Soli from San Remo. Here lie the ashes of Thomas Hanbury and his wife Katherine Pease.



Moorish Mausoleum

whose leaves smell of lemon, and further on your left two ancient specimens of *Melaleuca styphelioides* and *M. preissiana*, while on your right a specimens of *M. curicularis*.



Fountain of the Faun

These are followed by a *Casimiroa edulis* which was planted by Daniel Hanbury in September 1869. This plant comes from the Central American plateau and was highly esteemed by the early settlers because of its edible fruit and the sleep-inducing properties of the flour obtained from the fruits.

Before turning towards the bridge on your left you may continue along the path and reach the **Tennis Court**, the first private tennis court in Italy. Two large specimens of *Pinus pinea* hang over the court on each side of the **Fountain of the Faun**.

Return along the path and onto the bridge crossing the ancient **Roman Road**. This road, called **Via Aurelia**, is more properly named the Via Julia Augusta, an important means of communication finished in 12 BC

and which connected *Derthona* (nowadays Tortona) - across *Aquae Statiellae* (Acqui Terme), *Vada Sabatia* (Vado Ligure, near Savona), *Albintimilium* (Ventimiglia), *Trophaeum Augusti* (La Turbie) - with *Aquae Sextiae* (Aix-en-Provence). A plaque records some verses of Dante and the names of some of the famous people who have either passed by or stopped here.



Ancient varieties of citrus

After going down the steps, you reach the **Piana**, an area of flat ground where you will find not only



Olive Avenue



olive trees but also some citrus dating from the 18th century. On the right there is a large specimen of *Elaeocarpus obovatus* standing out against the sky. Nearby is a *Photinia davidiana*.



Continue straight ahead towards the sea along an avenue flanked by ancient orchards. Halfway down there is a 400 year old olive tree of an ancient variety. Its stump was cut to facilitate access along the avenue. Behind it sits a large specimen of *Pinus canariensis*, planted by Daniel Hanbury in November 1870 and now reaching a great height.

The **Piana** includes rich collection of ancient varieties of citrus trees. We would like to point out the shaddock or pummelo (*Citrus maxima*) whose fruits can weigh up to 4 lb. (1,8 kilograms), the lumia (*C. lumia*), the citron (*C. medica*), the Mauritius papeda (*C. hystrix*), the bergamot (*C. bergamia*), the bitter orange (*C. aurantium*), the sweet orange (*C. sinensis*), the lemon (*C. limon*), the grapefruit (*C. x paradisi*), the mandarin (*C. deliciosa*), the tangerine (*C. tangerina*) and the kumquat (*Fortunella margarita*).

Near the citrus several species of exotic fruit trees have also been planted: the quince (*Chaenomeles sinensis*) which comes from China; the loquat (*Eriobotrya japonica*) from Japan; the raisin tree (*Hovenia dulcis*) from the Far East; the avocado (*Persea americana*) from Central America; the feijoa (*Acca sellowiana*) from South America; guayabo (*Eugenia uruguayensis*) from Argentina; mountain paw-paw (*Carica quercifolia*) from South America; the Cattley guava (*Psidium cattleianum*) from Brazil; macadamia (*Macadamia ternifolia*) from Australia, and the New Zealand laurel (*Corynocarpus laevigatus*).

There are also some local fruit trees which have survived the passage of time. The service tree (*Sorbus domestica*), the azarole (*Crataegus azarolus*), the jujube (*Zizyphus jujuba*), the medlar (*Mespilus germanica*) and the pistachio (*Pistacia vera*).

At the end of this **Olive Avenue** is a magnificent **millstone** with part of the mechanism taken from a mill built on the edge of the **Rio Sorba**.

The building (by the sea) now used as a **Refreshment**



Ancient millstone

Bar was, many years ago, a laundry. The Hanbury family used the surrounding area for cultivating vegetables.

On the pergola outside the bar note *Buddleja madagascariensis* which flowers from January to April.

On the terraces below the **millstone**, you will see the sun-loving part of the collection of the genus *Salvia*. More than half of the nine hundred species of this

genus are American in origin. Many of them have healing properties and are used as medicinal plants.

Returning up the steps you climb through the eastern part of the **Piana**. To the east of the **millstone** there is a little pine wood (*Pinus halepensis* and some *P. pinea*), where there is a collection

of *Cistus*. Further on, partially hidden behind a group of palms (*Washingtonia filifera*), you come across a building, the **Stalla Rustica**, commonly called **Vaccheria** because this is where the cows of the estate used to be housed. The building was designed in 1886 by the architect Pio Soli. On the first floor there is a room which was used to conserve fruits and other vegetables.

After passing a large specimen of the African *Acacia karroo*

Brugmansia suaveolens 'Guatemala'



(note the long thorns which prevent large herbivores, especially giraffes, from eating its branches) you will reach the **Venetian Well**. Opposite this are two specimens (one large, one small) of the evergreen tree *Olmediella betschleriana*. These are the only two male specimens of this most rare Mexican plant currently growing in Europe. The only European female specimen is in the Naples botanical garden.

Venetian well



Acacia karroo



Your route continues under the **pergolas**. Before the Second World War they covered nearly all the paths of the Piana to the east of the Olive Avenue. The pergolas carry many climbing plants - passionflowers, wisterias, and thunbergias. On both sides of the path you will see specimens of the South American genus *Brugmansia*, originally used for therapeutic and psychedelic purposes during religious ceremonies. The flowers, in the form of a trumpet or a bell, give off a delicate smell which attracts *Herse convolvuli*, a European moth with a long proboscis so that it is able to substitute for the humming bird as it pollinates the plant.

After recrossing the **Roman Road**, turn right and go along a level path bordered by other species and varieties of the genus *Brugmansia*. In summer it is impossible to avoid walking on many of the male flowers that fall from the branches of *Brachychiton discolor*. The flowering of this Australian plant is very prolific, the branches that flower abundantly lose their leaves. When the male flowers open they remain on the branches for one or two days and then fall.

Further on you will see *Melaleuca preissiana*, *Araucaria bidwillii* and several specimens of different varieties of the genera *Eucalyptus*, *Callistemon*, *Acacia*, *Melaleuca* and *Brachychiton*. All these trees and shrubs form the area known as the **Australian Wood**.

After a sharp leftward bend and an uphill walk you will return to the **Dragon Fountain**. The path towards the **Palazzo** on your left is surrounded by



Brachychiton discolor

wisterias (*Wisteria sinensis* and *W. floribunda*) which have beautiful spring flowers.

You will reach the **South Terrace** of the Palazzo after passing under a **Florentine Pergola**. A second per-



Wisteria floribunda

gola on your left going down the steps is covered by *Rosa banksiae* var. *lutea* (double yellow flowers). On a nearby wall there is an ancient rose (*R. x fortuniana*) discovered by Mr. Fortune in a Mandarin's garden in China and introduced to England in 1845. At the south-eastern corner of the terrace, at the top of steep steps, sits the **Pavillon**, a little temple built according to a design by Sir Thomas.

In the middle of the south terrace lies an oval bed where succulent plants of different origin and forms are planted in the style of the 19th century. Look for a specimen of *Dra-caena draco*, from the Canary Islands, which flowered for the first time in 2003.

The **marble loggia** of the Palazzo was added during the restoration and enlargement of the villa in 1876 according to the design of the architect Mr. Foster. In front of the loggia there is a specimen of *Punica granatum*, there when Thomas Hanbury bought the villa in 1867.

You come to the **North Terrace** facing the Palazzo from its western side. A plaque on the wall in Latin records Queen Victoria's visit in the 19th century. Leaving the terrace by the little gate at the northern end you will pass a *Quillaja saponaria*, an evergreen tree from Chile. Because its cork is rich in saponin it is used as a detergent in the textile industry and is commonly known as the soap-bark tree.

Exit by the path to the north of the terrace and continue along the flat avenue until you reach the **Casa Rustica**. Built in 1886 by the architect Pio Soli, this was the scientific centre of the Garden. At present it is a little **museum** with some botanic collections and



The Pavillon

old tools. On the first floor there is a herbarium and a laboratory.

Retrace your steps a little and you will come to the **Grande Route** set out as a carriageway by Ludwig Winter to connect the Palazzo and the middle of the Gardens. It crosses perpendicular to the **Cycas Avenue**, where male and female specimens of *Cycas revoluta* and individuals of different varieties of the genera *Encephalartos*, *Dion* and *Macrozamia* are grouped. These belong to two systematic taxa (*Cycad* and *Zamia* families) and their origin is very ancient, dating from the Mesozoic Era (i.e. between 200 and 100 million years ago). They resemble palms but their structure and origin are from a completely different group. They are characterized by the presence of specialised leaves, some of which bear the reproductive system and some of which are sterile. In the male plants they are joined together and form a more or less erect cone which carries the pollen sacs.

In the female specimens, these transformed leaves are yellow-brown in color, more or less tight at the



center, and carry ovules (female apparatuses). Depending on the season of your visit you can see them in different positions: in early summer they are open to catch wind-borne pollen; during the following months they are closed to protect ovules through development up to ripening; at the end of winter the transformed leaves are opened for ripe ovules to disseminate.

On the east side of the Grande Route, below the Viale delle Cycas, we find a **Palm grove**, with ancient specimens of *Syagrus roman-zoffianum*, whose trunks bear the marks of the bombings of the Second World War.

During the ascent along the Grande Route you pass a female specimen of *Ginkgo biloba*. The male plant is a bit further downhill. This is a very ancient plant which is widespread in the Far East and was often planted near temples in Japan. Its true origin remains unknown but it is believed to come from the interior of China. Linnaeus tried to reproduce its Japanese name in Latin characters. In English its name should be "Ginkyo" but because of a printing error it is now called by the almost unpronounceable "Ginkgo."

On the outside of the sharp bend, on the other side of the wooden fence can be seen a specimen of *Chiranthodendron pentadactylon* which flowers from May to June. Its name refers to the curious form of the stamens which are partially joined and which form a little red hand with hooked fingers. Indigenous peoples in South

America picked these flowers and deposited them on altars. For a long time the plant was only known through drawings contained in documents originating in South America and it was believed to be extinct. However in 1787 a specimen was discovered in Mexico. Then at the end of the 19th century, during explorations in Guatemala, many forests formed solely by this species were found.

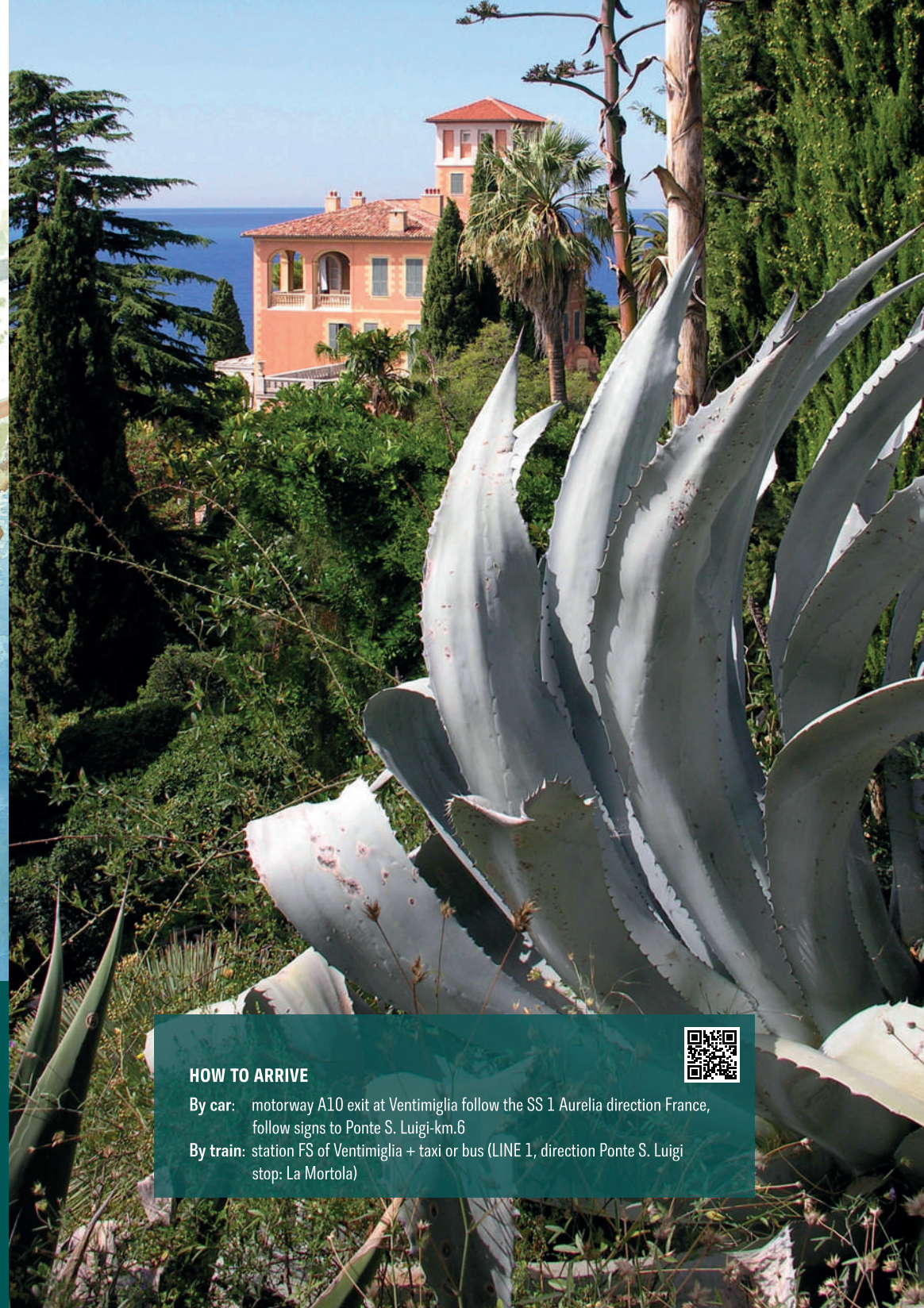
On the inside of the sharp bend, there is a specimen of Australian *Microcitrus australis*. Nearby, a specimen of *Lagunaria patersonia*, a tree from Australia, reaches towards the sky. During the final ascent you will see the last few palms, among which are the rare *Brahea dulcis* and *B. armata* which are quite remarkable. They are followed by a group of banana trees: *Musa x paradisiacal* (a banana whose fruit ripens at La Mortola) and other wild bananas. Further on there is a dense group of *Strelitzia Nicolai* with strong stems about six metres tall.

After a couple of bends, you will see the entrance gate above which sits the inscription of good wishes: "Pho".



Chiranthodendron pentadactylon





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|---------------------|---------------------|------------------------|
| 1. Palms | 7. Dragon fountain | 13. Ancient Roman Road |
| 2. Agaves | 8. Perfume garden | 14. Citrus orchards |
| 3. Aloes | 9. Giardinetti | 15. Exotic fruits |
| 4. Pergola | 10. Cypress Avenue | 16. Pergolas |
| 5. Succulent plants | 11. Acacias | 17. Olive Avenue |
| 6. Palazzo Orengo | 12. Australian wood | 18. Snack-bar |

HOW TO ARRIVE

By car: motorway A10 exit at Ventimiglia follow the SS 1 Aurelia direction France, follow signs to Ponte S. Luigi-km.6

By train: station FS of Ventimiglia + taxi or bus (LINE 1, direction Ponte S. Luigi stop: La Mortola)

