

International Rock Gardener





Oron Peri, who lives in the lower Galilee, north Israel, is a plantsman with as fine an eye for a photograph as for a plant. Bulbous plants and Iris are among his favourites. His knowledge of plants is remarkable and that of bulbous plants encyclopaedic. Oron travels widely and is in great demand as a [tour leader](#) on plant trips, as might be imagined. Featured this month on the IRG cover is [Iris nigricans](#), the darkest of all, a good form from the southern populations in Jordan photographed earlier this month, with a background of [Lathyrus pseudocicera](#), by Oron Peri.

We are delighted to have Oron visiting Scotland this Autumn to speak to the annual Scottish Rock Garden Club Discussion Weekend, to be held in Dumfries, in South West Scotland, in late September. See all details, plus booking form, [here in the SRGC Forum](#).

---Gardens in the Mountains---

A forgotten European Ranunculus by Zdeněk Zvolánek

International Rock Gardener is the journal where some fresh finding can be published with minimal delay, sometimes with a waiting period of only one month. We have this instant publishing advantage and we will use it to be more responsive than is possible for most paper printed bulletins.

This short article will be published just a few months after finding one remote locality of a desirable alpine buttercup, which was out of flower but with decorative leaves suitable for photographing.

In the end of the 2011 season the author and his friend found by a chance small flat area only 10 x 3 metres in size which is the habitat of **Ranunculus wettsteinii** Dörf., the well-recognised species described in Vienna in 1918 but known nowadays only from herbariums.

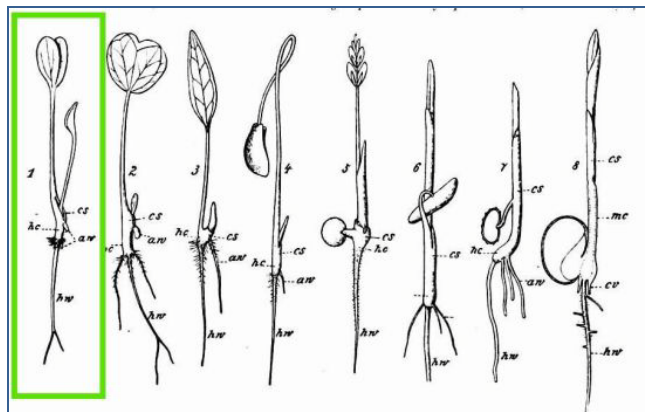


Abb. 595. Keimlinge von Monocotyledonen im Vergleich mit solchen synkotyler Dico-tyledonon. — Fig. 1 *Ranunculus Wettsteinii* (verw. mit *R. pasnissifolius*); Fig. 2 *Ranunculus Ficaria*; Fig. 3 *Paris*; Fig. 4 *Allium*; Fig. 5 *Ruscus*; Fig. 6 *Phoenix*; Fig. 7 *Tradescantia*; Fig. 8. *Zea*. — hw Hauptwurzel, aw Adventivwurzel, hc Hyocotyl, cs Cotyledonarscheide, mc Mesocotyl, cv Coleorhiza. — Fig. 4–6 nach Velenovský, sonst Original.

Above: Comparison of various plants' germination pattern, including *R. wettsteinii*.

Left: Kew Herbarium specimen by Ignaz Dörfler from 1924

It is not a good policy to give the precise position of this locality so the reader must be satisfied with the information that it was very close to the Albanian - Macedonian border. A large party of Czech rock gardeners tried to rediscover this rare species on the Albanian side of Mt. Korab 15 years ago but they did not find it.

The present situation when some frontiers are

now free of soldiers, is similar to the happy days some 80 years ago, when Mr. W.B.Turrill from RBG Kew published the information that Dr. Giuseppe had collected *Ranunculus wettsteinii* for their

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herbarium at Chafa Jamit 2460m (Albanian -Serbian frontier, 12.7.1930). There is a distinct possibility that Dr. Giuseppi, an extremely keen collector and rock gardener, grew it on in England for some unknown period.

XXV.—ON THE FLORA OF THE NEARER EAST: XI.* A CONTRIBUTION TO THE FLORA OF ALBANIA. W. B. TURRILL.

The mountainous kingdom of Albania, situated about the centre of the western part of the Balkan Peninsula, with an area of 27,538 sq. km. (The Near East Year Book, 1931-32, p. 9), is still one of the botanically lesser-known areas of south-eastern Europe. In spite of several valuable post-war botanical investigations, much more information is needed concerning the composition of its flora and the distribution of the component species before it is possible to solve many of the interesting phytogeographical problems which puzzle botanists familiar with the Balkan Peninsula. The replacement from north to south of an Alpine by a Greek high-mountain flora is one of the more important of those problems whose solution must be sought in Albania.† It has, therefore, been thought advisable to publish a list of the plants collected in various parts of Albania, especially on the mountains, by Dr. P. L. Giuseppi, during two journeys in 1929 and 1930. The specimens on which the list is based have been presented to the Herbarium by Dr. Giuseppi. In addition he has cultivated in his garden many species which I have been allowed to study alive, and has very generously presented several living specimens to Kew.

A few specimens collected in the neighbouring districts of Yugoslavia (N. Macedonia, etc.) and Epirus are included.

Clematis Viticella L. Between Scodra and Antivari, 200 m., 4.7.1929, No. 15A.

Ranunculus Wettsteinii Dörf. Chafa Jamit, Albanian-Serbian frontier (Kapa Jamit in Serbian), 2460 m., 12.7.1930, No. 66.

Alyssum murale W. et K. ? (material incomplete). Hillsides on way to Mal i Dejs, 155 m., 20.6.1930, No. 12.

Aubrieta sp. Smolika, 2150-2770 m., 2.7.1930, No. 49. Only a very small flowering specimen, unmatched with any species previously

*Continued from *K.B.* 1931, 455.

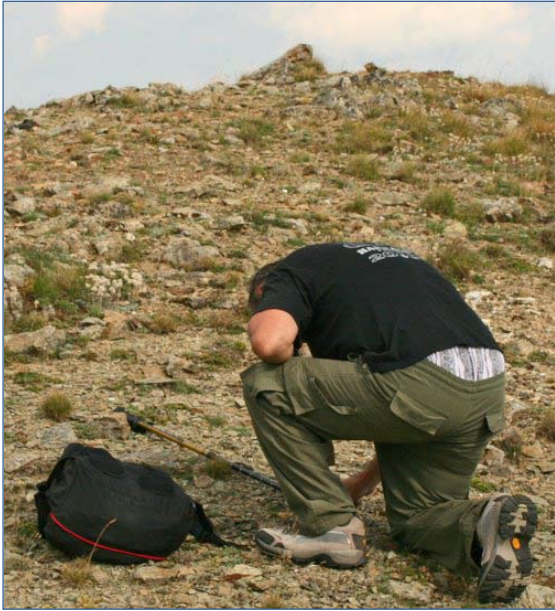
†See Turrill, *The Plant Life of the Balkan Peninsula* (Oxford, 1929), 406-413.

Excerpts from W.B.Turrill's Kew article

When we first crossed this place I saw unusual (unknown to me) leaves and I asked my friend what it might be. He went to some yoga asana (knee posture) and quickly recognised the rare Albanian buttercup of the botanist, Dörfler. This is one of the small species which make mats about 10cm in diameter and less than 3cm high when in seed. The leaves, up to one inch long, are ovate, almost a

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lovely heart shape, with dense woolly surfaces. The colour of the leaves resembles the bedrock surface as a camouflage against grazing of its delicate foliage.



Ranunculus wettsteinii

The locality was a surprise because the rock was a silicate (acid), just a small island in the calcareous mountain range. It was a windy subalpine ridge with sparse vegetation so the buttercups have no competition. Wild animals had disturbed a small part of the ridge so I was able to clean two loosened plants to see their particular growth structure; after photographing

I put them back to their miraculous substrate in their good microclimate to recover.



Ranunculus parnassiifolius

My photographs match all herbarium items of the Austrian botanist Ignaz Dörfler and the only bad luck is the fact, that his herbarium sheets show rather small white flowers.

Well, it will never be a shocking front cover beauty but I hope that some clever gardener in the future will breed this dwarf species with its close and

more robust, large flowered relative *Ranunculus parnassiifolius* and perhaps obtain a charming plant for miniature gardens in troughs.

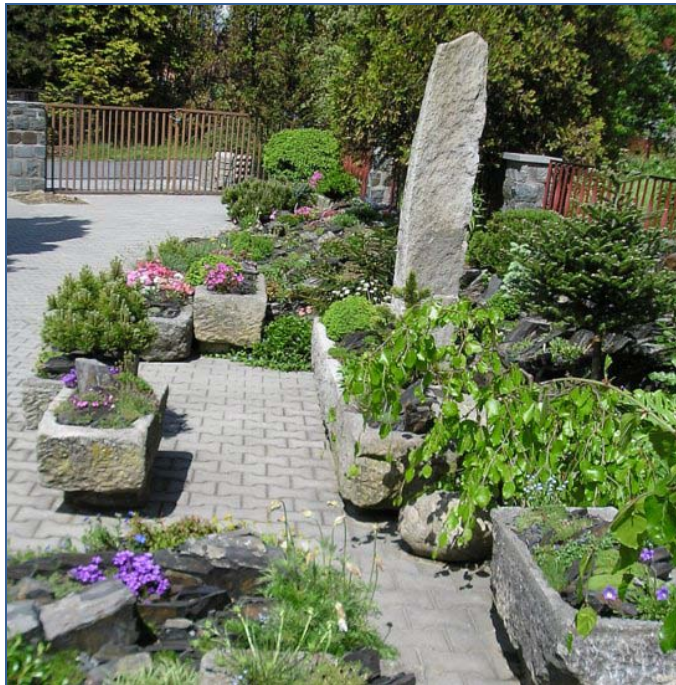
Z.Z.

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---PEPiPEDIA---

A Pink-rose Campanula Photos by Lad'a Piatek and Gita Piatková

All bellflowers which vary from the blue palette that is the family norm are desirable. The Silesian growers from Ostrava (Northern Moravia), Lad'a Piatek and Gita Piatková sent us a remarkable picture from the one of their army of natural stone troughs showing a new rock garden plant, *Campanula bellidifolia* forma *rosea*.



Some of Lad'a and Gita's troughs



Campanula bellidifolia forma *rosea*

We know that this species from Central Caucasus is included into the ***Campanula tridentata* complex** and the plant can be found under its synonym *Campanula tridentata* var. *bellidifolia*.

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What is important for us is the fact that this species grows in rock crevices in the subalpine and alpine zone and that Piatek's picture portrays a plant which is happy to grow in a hole in the piece of tufa stone placed in their trough. The stems are about 10 cm high; leaves on longer petioles are not dentate. The solitary campanulate flowers have a densely hairy base. We should give thanks to the unknown person who found this pale pink form.



Campanula bellidifolia forma *rosea*

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---Gardens in the Mountains---

Campanulas in China by Dieter Zschummel

The Southwest of China, including Tibet, is extremely rich in plants for the enthusiast for alpinists. Around 70% of the world's gentians, 60% of the primulas and more than 55% of all rhododendrons are to be found in China.

Contrary to that the genus *Campanula* is represented in China by only 5% of the known species. This is somewhat surprising, though many of the campanulas are plants of the Mediterranean, but other members are really true alpinists, such as those from the Caucasus and Alps.

The Campanulaceae as a family is more numerous in China by other genera: *Cyananthus*, *Codonopsis* and *Adenophora*. The section for Campanulaceae in the "Flora of China" (now available on the Internet) contains only 22 species of *Campanula*. Several of those are rather inconspicuous and some are only annual plants.



Campanula crenulata photo taken by Vojtech Holubec in Tibet

So it is not so surprising that only a very few rock gardeners are growing Chinese *Campanulas* in their own garden or an alpine house.

Campanula crenulata, the alpine or mountain species, may be in cultivation, but possibly only with very few specialists. It is a plant somewhat like *Campanula pulla* but a bit taller and with its violet blue flowers in a little less dark colour.

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Left: *Campanula aristata*

Another Chinese species, but already taller and not very beautiful is ***Campanula aristata***. We have found it several times in Tibet, where it grows in the high alpine zone.

It may have some charm for the Campanula specialists, because it is somewhat different from the most typical Campanulas.

Below: *Campanula pallida*, near Chisum, Tibet



We quite often found ***Campanula pallida*** which has a wide distribution in the mountains.

Though it is a perennial species, it looks more like an annual one with its small pale blue to pinkish flowers.

It is not really a plant for the garden.



When we visited the area near the Lugu Lake in the north of Yunnan, in mid-September 2010, we came across two other Campanulas.

In rather dry meadows, at about 3000m altitude, we found a plant which might be either ***Campanula chinensis*** or ***Campanula delavayi*** (or even a plant not described in the Flora of China).

It was a slender plant growing to 20-35 cm in height. We found its medium sized flowers of a good light blue fairly attractive and the effect was not impaired by the small stem-leaves (left).

Unfortunately we had no time for either more or better photographs and so the identity of the plant remains somewhat obscure.

Left: *Campanula* cf. spec. near Lugu Lake, Yunnan.

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The most interesting *Campanula* found by us was growing in the dappled shade of tall shrubs and herbs – and in pouring rain - in crevices of limestone cliffs. It seems to be a true chasmophyte.

When we discovered it first, it was without flowers and we didn't think of a campanula, but more of a gesneriad. But then we found plants in flower: rather big broad open bowls of a medium blue violet.

The flowers were carried single in the terminal of 5-10 cm long hairy stems, sometimes the stems were branched. The basal leaves with long petioles were orbicular to kidney shaped, attractive veined and of a grey green colour flushed with purple. The stem leaves are linear, sessile and small. The leaves are hairy too. The whole plant was very brittle.

We are almost sure that this plant is ***Campanula calcicola***.

Campanula calcicola was growing together with ferns, *Corallodiscus kingianus* and a primula of the section *Bullatae*, which John Richards thinks is most likely [*Primula rockii*](#).

We don't think that this campanula is in cultivation. We do think it could be enrichment for our gardens, where it would need to be grown in a shady crevice of a tufa wall.



Campanula calcicola near Lugu Lake, Yunnan

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---A Gardener's Thoughts---

Spring Fears and Hopes by Jorn Hornburg of Cariboo, British Columbia, Canada

It is late February. Since the winter solstice, the sun has given us an additional two and a half hours of daylight. In our latitude (53 degrees north), the days have become noticeably longer. But there are nearly 1.5 metres of snow covering the garden with a white, glittering blanket. The raised alpine beds look like buried Viking longboats waiting eagerly for the next journey.

A reality check cold snap has descended and the temperature is sitting at minus 22 degrees Celsius. The red polls, chickadees, and grosbeaks are eagerly gobbling up the sunflower seeds out of three feeders. Some are perched on shrubs against the south house walls, fluffed up to twice their size, soaking up the early sunrays. The stems of the red osier dogwoods are sparkling against their background of snow.

Even though the hostile environment seems to exclude life on its surface, underneath the efficiently insulating snow cover sustains and protects a myriad of alpine plants. Just above the soil, where it meets the snow, a unique narrow layer of snow crystals is formed - pukak snow. We are warned never to build a house of pukak snow (pronounced 'pocuck'). This layer of pukak snow provides a haven for a variety of wildlife such as voles who use the pukak layer and build a devilish integrated network of tunnels. The grass stays green under this layer and provides nutrition for these animals. Unfortunately, so do the alpine plants!



Degenia velebitica Mike Ireland



Convolvulus boissieri Franz Hadacek

When the snow finally receded by April of 2011, a veritable intermingling of tunnels showed in the pukak layer. Later, with the snow totally gone, one could see the detritus of the voles' meals along their former tunnels. Cruciferae seemed to be a favourite meal for these discerning guys. For example: of the two healthy spread out cushions (diameter of 30 cm) of *Degenia velebitica*, only a sad stubble of miniature stumps was left. Another difficult loss was *Convolvulus boissieri*. Even though some of the alpine beds were raised with 40-50 cm steep, rock walls, a handful of other alpines also fell to the ever present voles.

What to do about these voles? Get a cat? We have one along with two dogs that are avid vole hunters. Train an owl to hunt in your back yard? Not likely. The pukak layer so important to protecting the alpines also protects the voles from weather and predators. The voles are essential to the food chain. They are staple diet of a number of bird and mammal predators. For many owls and hawks, voles make up as much as 85 per cent of their diet. Foxes, coyotes, bobcats and even wolves eat them. Voles have become an important link in the food chain between the grasses and

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the carnivores and birds of prey. Maybe they are even more important than alpine plants in the garden?



Claytonia lanceolata Lori Skulski



Clintonia uniflora Tony Willis

The trick is to have back-ups - to anticipate possible losses. One can take cuttings or collect seeds which can help cover future losses. Or, there are the seed exchanges. What unremitting joy they provide on a bleak winter's day. After much painful selecting of the "must have" species, the seeds arrive and seeding turns into an almost euphoric activity. There are about 220 pots with seeds sitting upstairs in the growing room. Already about 40 are showing hopeful and healthy seedlings. Another 150 pots from last year's seed harvest are sitting under the snow. By the spring equinox, they will be dug out and put into the warming green house.

A month later, "Look Ma, there is *Claytonia lanceolata* and, over there is *Clintonia uniflora*!!!. Wow, the *Soldanellas* have made it, and there's a *Thlaspi*. I can't believe it! Smell it!



Soldanella Cliff Booker



Thlaspi stylosum Göte Svanholm

In the end the combination of pukak snow for protection and hungry voles making for spots in the alpine bed are the duo that keeps me seeding and seeding.

J.H.

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Ed.: There is still snow about in April, of course, as this photo taken by SRGC Slovenian Forumist, [Zvone](#), on Easter Monday, of the Obir Peak in the Karawanken mountain range near the Austrian border, illustrates.

---Mountains in the Gardens---

Second Report from the Tufa Kingdom by Zdeněk Zvolánek, photos František Paznocht



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The [IRG5 May 2010](#) informed about one of the biggest (tufa) soft travertine beds known in our circles. Big boulders are placed in elegant raised beds made from “homemade” painted sandy concrete. The author of this stone work is František (Franto) Paznocht, now retired and able in a few years to fill hundreds of large holes with exquisite plants. The good news is that Franto carefully finished the last special tufa hill in the cooler part of his garden. This last bed represents only 10 per cent of all the tufa beds around his house.

Anyone who has tried to assemble tufa stones into a natural looking outcrop will tell you how difficult it is to assemble irregular pieces and boulders together. Franto did it with great charm and added a tiny cross at the high summit (just for divine luck). He prepared plenty of king-size holes to get the optimum of luxury for his plants.



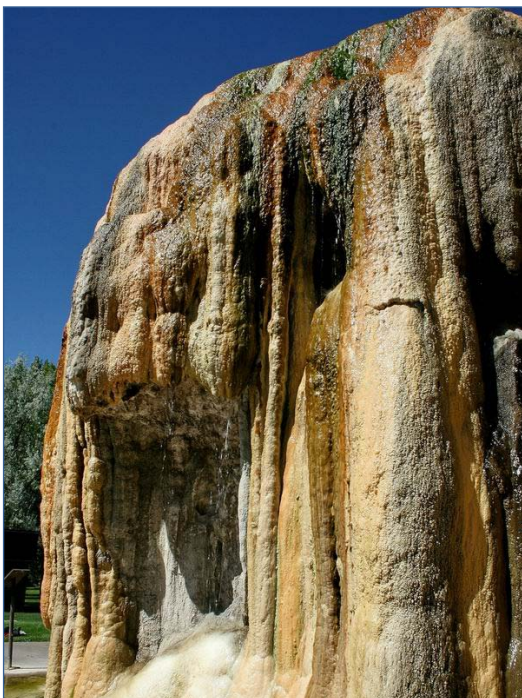
Saxifraga dinnikii

The cool conditions of Northern Bavaria are seen in the healthy cheeks of difficult alpinists like Caucasian *Saxifraga dinnikii* and circumpolar *Saxifraga oppositifolia* which are like medals on the noble coat of the happier rock gardens. Both plants enjoy their positions in the northern walls of the artificial outcrop.

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Saxifraga oppositifolia



The boulder of soft travertine (commonly called like igneous rocks "tufa") is made in cool or hot springs from complicated mixtures of calcite and magnesium with the help of mosses, microbes and algae.

I photographed as a good example a 3 metre tall tufa boulder which has grown around an installed hot spring pipe in Thermopolis, Wyoming over the last 90 years.

Left: Giant tufa boulder in Wyoming with living algae

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Soft travertine or tufa is surprisingly able to accommodate both lime-loving and lime-hating plants. Magnesium probably stops the calcite acting as a lime with its special chemical abilities. Old boulders are hard travertine, which is not an easy rock for drilling holes and not too comfortable for the root run of plants. Very young, overly soft boulders can be heavily damaged by quick weathering. Franto chooses his stones a little bit harder than is the norm, so he provides bigger holes for the root run of his saxatile plants.



Eastern aspects of the tufa boulders are suitable for growing species of saxifrages which like warmer conditions. A small, neat plant from the engleria section, selected in Croatia, is *Saxifraga federici-augusti* 'Aphrodite' (above) which seems only rarely to be offered.

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Saxifraga 'Mariella'

Franto raised a seedling from *Saxifraga marginata* 'Minor', which is distinct with red colours in its flowers: he named it 'Mariella'.



I have written earlier about his shining red *Phlox* x 'Frantonine'. In a "tufa" hole this is free flowering, well drained and more compact than it is in open loamy soil at my Beauty Slope. Similar happiness is seen in the growth of a young plant of Franto's cultivar *Primula* x 'Carina'.

The beauty and vigour of this plant is the result of three species involved in his wild chance breeding: *Primula auricula*, *P. carniolica* and *P. marginata*.

One day this tufa kingdom will be better known and I am sure that this is not the last report from this small corner of our continent.

Z.Z.

Left: *Primula* x 'Carina'



News of a Job Opportunity

[Botanischer Garten München-Nymphenburg](#)

Stellenausschreibung

*Im Bereich der Generaldirektion der Staatlichen Naturwissenschaftlichen Sammlungen Bayerns (SNSB) ist zum nächstmöglichen Zeitpunkt eine Stelle als **Gärtnerin/Gärtner** im Botanischen Garten München-Nymphenburg – Abteilung Freiland, Revier Alpine Anzucht – zu besetzen.*

Position: Horticulturist in the Alpine Propagation Unit of the Munich Botanic Garden. (www.botmuc.de)

Job Location: The Alpine Propagation Unit has an Alpine Display House, an earth house for both propagation and part of the reserve collection and 21 frames. The Alpine Garden on the Schachen also falls under the care of this unit.

Job Details: A horticulturist to work together with the head grower of the unit in the propagation, care and display of alpine plants in both the Munich Botanic Garden and in the Alpine Garden on the Schachen.

Monthly Salary: Entgeltgruppe 5 TV-L

The monthly salary lies between 1833,40€ and 2132,10€ depending on the work experience of the applicant.

Closing Date: 14th May 2012

CV's (copies only please as they are not returned) may be in either English or German and should be sent to:

Technische Verwaltung des Botanischen Gartens München-Nymphenburg

Menzinger Str. 61

80638 Muenchen

Germany

[Botanischer Garten München-Nymphenburg](#) - Munich Botanical Garden

Covering an area of 220,000 m² (almost 55 acres) the Munich Botanical Garden in the borough of Nymphenburg is one of the most important botanical gardens of the world and is visited by over 400,000 visitors every year. It is home to approximately 14,000 plants.

Currently, the [Botanical Garden](#) employs approximately 100 people.

There are 16 sections each looked after by a head gardener. The head gardeners are master craftsmen with decades of experience, each supervising their own team of gardeners, assistant gardeners and trainees.

