

International Rock Gardener

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First up this month is an interview in which Ján Zaujec replies to questions from Zdeněk Zvolánek on his approach to rock gardening and shares with us photos of some of the plants which do well for him. No surprise that Ján has a preference for mat-forming and cushion plants!

Only two articles this month – and the second covers something that we hope you may be inspired to try in your own garden – many of us still in lockdown are keen to have as many diversions and projects as possible – so this seems most apposite. Ken Devine in Ireland has made a new version of the Styrofoam trough – this time a tower to provide a vertical

habitat that allows the planting of many plants in a small space, and provides interest above the ground level that is so often the focus in rock gardens.

Cover picture: *Leontopodium nivale* – photo Ján Zaujec

--- Support the Scottish Rock Garden Club ---

The active and long-established SRGC specialises in the study and cultivation of plants appropriate to alpine and rock gardens, with members and contacts in many countries other than Scotland. Our journal *The Rock Garden* is published twice a year. Membership of the Club is possible in two ways – an “online” membership delivers all otherwise printed material from the Club to members via their profile page on our website. Those wishing to receive the journal etc. by post can opt for a “postal” membership – both types can be taken out via the SRGC website. Because of the coronavirus pandemic, there may not be any further local group or national SRGC events for the time being but there are various local groups of the Club in the UK – all ordinarily welcome visitors. Our Seed Exchange is closed meantime but we hope it will soon be able to reopen. The SRGC also offers grants to horticultural students and for exploration trips. Details of all this can be found on our website. Our very active website at www.srgc.net has a forum used by gardeners, plant hunters and alpine enthusiasts world-wide. Here members enjoy meeting fellow members and share information and expertise. You can renew your subscription from our secure area; enjoy the weekly Bulb Log from Ian Young, the monthly e-magazine *International Rock Gardener* and all the many other resources on the site. There are archives of our printed journals and seed lists online for information. Browsing the SRGC website is definitely worthwhile – there is a wealth of information there.

The SRGC is proud to have recently announced a new service – the Scottish Rock Podcast, made by Connor Smith – which you can listen to [by clicking this link](#).

The President and Council of the Club welcome your support of our work – you are invited also to make a donation to that end – you may do so [from this link](#). If you choose to join the SRGC we hope you enjoy your membership through the many resources offered by our website but more especially through meeting many like-minded gardeners with whom you will make many lasting friendships and gain much practical advice. The Club has a reputation for friendliness in all its activities and we invite you to make full use of as many of them as possible.



The Scottish Rock Garden Club

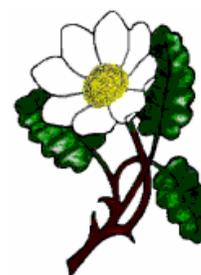
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--- Interview with a Czech Gardener ---

Ján Zaujec interview with Zdeněk Zvolánek

The eastern mountain rich part of late Czechoslovakia is Slovakia. Rock gardening is not so broadly developed there as in the western hilly part called Czechia (Czech Republic). So it is a great surprise to see a new rich crevice garden built near old Slovakian town Nitra by a veterinary doctor Ján Zaujec. We can see there perfect local limestone stones placed by rules of Nature and happy plants in crevices and small screes. The duty of IRG is to show this piece the art of gardening and give to the author some questions and publish his answers.



Dianthus alpinus

1 / What led you to build a rock garden in the garden?

Since I like mountains, it was probably a natural desire to move a small piece of mountain scenery and home to the garden on a reasonable scale.

2 / How big a rock garden suits you?

I further identify with the quote of K. Čapek: "a rock garden grower is not only a gardener, but a collector, which places him among heavy maniacs". So, the bigger the better.

3 / Why did you start to form more working joints in the rock?

I don't think I started to form more joints purposefully. Rather, it has to do with what larger size of stone I'm working with. Of course, when I lay a lot of smaller stones, there are more joints. I stored about 30 large stones (approx. 500 kg-3 tons) with a crane. The skeletal layers laid out from these stones are quite wide, which means fewer joints per square metre. It is true that I plant fewer plants with a wide layer, but on the other hand, such layers to the ribs add rockery to monumentality and

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naturalness. Also, large stones have greater thermal inertia. The aesthetic aspect of rock garden construction is as important to me as growing. I try to alternate the rhythm of the layers, the height of the side walls, to complement the rock with rubble surfaces to make it look as natural as possible. When I'm not satisfied, I have no problem disassembling and reassembling the built area. Working with stone is a game for me.

4 / How does the proximity of the High and Low Tatras affect you?

The High Tatras are where my heart lies. Especially in the less accessible valleys, I have the opportunity to see plants in their natural environment. If one is sensitive enough, in the mountains you will find the best instructions on how to work with stone and grow plants.

5 / What do you call a mineral substrate?

1/3 soil and 2/3 crushed stone with sand.

6 / Which rock gardens do you prefer?

I admit that I often struggle in the aesthetic with the collecting side of things. The aesthete prefers to plant a few species in large groups on the whole rock, as it is in nature. On the other hand, the collector is one who wants to have as many plants as possible on the "Noah's ark" of rock gardens. The rock garden is designed to have different growing habitats. It is built in the form of a gorge, where the side walls of the layers are oriented to the northeast. As the side walls of the wider layers are quite high, this passage is sufficiently shaded over lunch time and is therefore suitable for cooler plants from the mountains. The opposite, more or less southern side or aspect, in turn, is better suited to thermophilic species. Gradually, as I build the rock garden, I continuously plant it and evaluate the selection of plants.



Rockwork and plants

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7 / **What is the climate around your garden near the Slovak town of Nitra?**

Nitra and its surroundings have a mostly warm and slightly dry lowland climate with an average annual temperature of + 9.7°C. Annual precipitation is around 553 mm on average. Since I live on a hill, it's pretty windy there.

Townsendia incana

8 / **What watering is necessary?**

It's quite individual, it depends on the year. When it is dry and very warm in the summer months, I water, but always at night with rainwater – and a headlamp.

9 / **How do you get plants for your garden?**

I buy some plants. When visiting different rock gardens, I always come across something interesting that I do not know, or the plants I am longing for. But perhaps the greatest adventure is growing alpines from seed. There is nothing more beautiful than growing enough of your own plants for experimentation. These are similar to the "endorphins" I enjoy when working with stone. I try to back up the plants that have worked for me, so if possible, I propagate them with cuttings.

10 / **Which valuable rock garden plants have you sown there?**

Something different can be valuable for everyone. I probably sow ***Townsendia incana*** the most. I also found seedlings of dwarf Androsaces: ***Androsace brigantiaca*** and ***Androsace barbulata***. Bluebells: ***Campanula cashmeriana*** and the Group of ***Campanula tridentata***. I was most pleased with the Turkish ***Salvia caespitosa*** seedlings.



Two plants in the Primulaceae - *Primula x marginata* and *Androsace vitaliana*.

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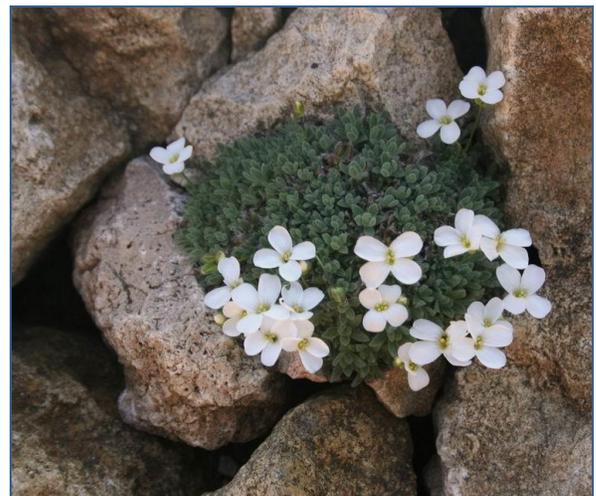
Androsace barbulata - mat-forming perennial with tufts of woody stems, grey leaves, white flowers. Flowering stems 3-6 cm tall. Primulaceae. Distribution: Caucasus, 1400-3000 m above sea level on rocky slopes, rocks, screes.

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Androsace barbulata



Arabis bryoides Cruciferae. From Greece, Balkan Peninsula. Mat-forming plant from limestone cliffs with soft hairy tiny leaves and white flowers on 2.5 cms stems during April-May.



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Asperula sintenisii Rubiaceae. From 1800-2500 m above sea level; grasslands, rocks on East Aegean Islands of Greece and Turkey. Subshrub mat-forming up to 5 cm tall. Flowers small, pink. in spring-summer.



Astragalus angustifolius Fabaceae. A sub-shrub from Turkey, this form with white flowers.

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Campanula anomala from the Russian Federation is tolerant of various climate zones. Oval green leaves with crimped edge. Purple/blue flowers in typical bell shape emerge on the ends of the stems.



Campanula cashmeriana can achieve a height of 20cm and a spread of 20cm after 2-5 years in a gritty well-drained sunny position. From the Himalyas.

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Campanula dasyantha Bieb. synonym *Campanula pilosa* Pall. Ex Roem & Schult. Comes from Japan in the alpine zone on rocky slopes and crevices. It can often be confused with *Campanula chamissonis*, but differs in its acute, pubescent, narrow basal leaves.



Daphne arbuscula is a neat dwarf evergreen shrub to 15cm tall, with narrowly oblong, glossy dark green leaves to 18mm long and deliciously fragrant pink flowers borne in cluster in spring. In the Thymelaeaceae, it is endemic to Slovakia. Grows mostly on southern sunny rocky slopes with limestone, at an altitude of 800–1300 m.

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Dianthus microlepis var. *degenii* is a very small cushion plant with linear leaves and large pink flowers in May to July. Height to 10cm.



Edraianthus serpyllifolius mat-forming perennial with tufts of linear to spoon-shaped, dark green leaves and short stems bearing dark violet flowers bell shaped in summer. From Croatia to northern Albania.

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Erigeron chrysopsidis - a North American species of flowering plants in the daisy family from south-eastern Washington, Oregon, extreme northern California, northern Nevada and Idaho. Very narrow basal leaves in tufts, covered with hairs

Gentiana alpina 'Iceberg' - small, shining incurving leaves forming rosettes, flowers in May, June. Granitic Alps. *Gentiana acaulis/ alpina* and *G. kochiana* need a semi-sunny spot.



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Gentiana ligustica from the Maritime and Ligurian Alps, 1650-2000 m above sea level on grassland. Leaves oblong-ovate. Flowers in May-June, 60 mm long, 40 mm diameter, blue, spotted green inside tube.



Globularia repens is from mountains of SW Europe. The main stems of this perennial (ca. 2-4 cm tall) get woody with age. Leaves are evergreen. Flowering stems short with inflorescences 1-2 cm across.

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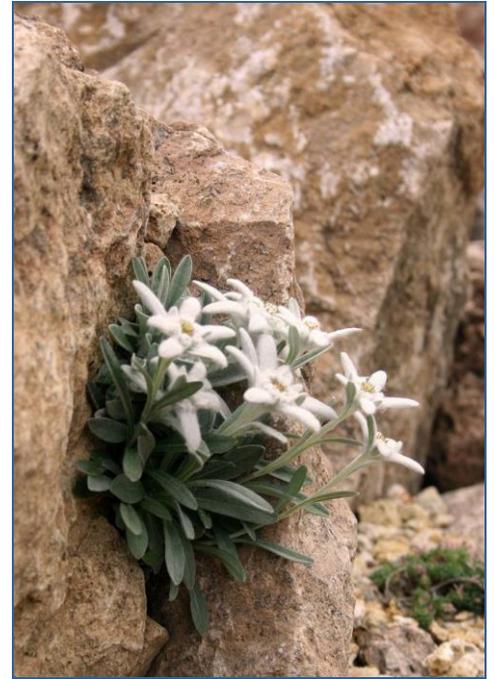


Heterotheca jonesii From southern Utah, this rare North American species of flowering plant in the Asteraceae Prostrate mats of woody stems clothed in hairy grey-green leaves. The clear yellow aster flowers are often borne over a long period.



Iberis saxatilis is a shrubby low-growing, spreading mound. It is native to France, Switzerland, Italy, the Balkan Peninsula, and the Crimean Peninsula.

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Leontopodium nivale is a hardy perennial which prefers rocky

limestone places at about 1,800–3,000 metres altitude in the European alps. The plant's leaves and flowers are covered with white hairs, and appear densely tomentose. Famously known as Edelweiss, flowering stalks, seen between July and September, can grow to a size of 3–20 centimetres in the wild, or up to 40 cm in cultivation. Each bloom consists of around six small yellow clustered florets (5 mm) surrounded by woolly white bracts.

Phlox

'Boranovice' has tiny, rose-pink flat flowers which cover a spreading mat of very small leaves. Height 5cm. This plant for well-drained soil in a sunny position, came originally from the garden of the late Ota Vlasák in the village of Boranovice in the Czech Republic. It is probably a hybrid of *Phlox pulvinata*. It does not seem as easy as most other phloxes and has also proved harder to propagate, with very few cuttings rooting.



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Other phloxes are clearly among Ján's preferred cushion forming plants his rock garden:



for



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Physoplexis comosa, the tufted horned rampion, is a species of flowering plants in the family Campanulaceae, native to alpine Europe. It is the only species in its genus, and was formerly included in *Phyteuma*. A tufted perennial to 8cm in height, with strongly toothed, ovate or heart-shaped dark green leaves and dense rounded umbels of bottle-shaped, dark purple-tipped, lilac-pink flowers 2cm in length.



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Primula farinosa is a small short-lived perennial in the family Primulaceae, native to Northern Europe and northern Asia. It thrives on grazed meadows rich in lime and moisture. Typical of wet, usually spring-fed, calcareous flushes. Grows 5–30 cm, stem leafless, hairy, scape also with glandular hairs and a mealy appearance.



Primula x marginata



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Primula pedemontana native to the Alps. Long-lived with similar growing habits to the auriculas. Flowers in early - late spring. Very hardy and with evergreen foliage, this enjoys a well-drained spot in partial shade. Will grow in alkaline, acid or neutral soil.

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Saxifraga oppositifolia is very common in the high Arctic and also some high mountainous areas further south, including northern Britain, the Alps and the Rocky Mountains. A low-growing mat growing up to 5 cm high, sometimes with woody branches of spreading habit. The leaves are small, rounded, scale-like, opposite in four rows with ciliated margins. The flowers, up to 13mm across, are solitary on short stalks, petals in shades of purple. It is one of the very first spring flowers, continuing to flower over some months in localities where the snow melts later.



Other saxifrages are also good candidates for the rock garden – they can be prone to scorch in strong sun, however, so a shaded position is best.





Silene acaulis

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Silene acaulis, in the Carophyllaceae, found widely across the northern hemisphere, is an evergreen, compact, cushion-forming perennial to around 5cm high with tiny, linear, bright green leaves. Its spring flowers are pink, or occasionally white, as here, and often have notched petals.



Close up of *Silene bolanthoides*



Silene bolanthoides is a floriferous endemic species from Kazdagı (Mt. İda), Canakkale-Balıkesir, Turkey. Plant height less than 5cm, flower size around 2.5cm.

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Teucrium aroanium commonly called germander, a species in the family Lamiaceae, is native to Greece. It is a low-growing, stoloniferous, woody, evergreen subshrub which typically grows to 8cm tall but spreads by trailing stems which root as they go.

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Townsendia hookeri, above and right, is widespread in North America. Little pointed leaves and neat daisy flowers, appearing from March to June. Prefers gravelly, sandy slopes.

Townsendia incana, below, is a low growing perennial with short stems with leaves at the base and along the stem. Leaves are quite thick and short, around half an inch long, though occasionally up to 3cm. These have a quite dense surface covering of white hairs, as do the reddish stems. A relatively large flowerhead is borne at the top of each stem, though generally not quite as wide as the leaf rosette underneath. Plants usually inhabit open, exposed locations, with sandy or rocky soils.





Townsendia incana

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--- Garden Project ---

A tower of troughs – Ken Devine

This project was carried out in November & December 2019. Inspired by Jan Tholhuijsen's ebook "Troughs in the rock garden" and Ian Young's troughs in "The Bulb Log". I have been making troughs for growing alpines for a number of years. I have access to polystyrene boxes of varying sizes through my work in University College Cork and these I turn into troughs by applying a couple of coats of a dry cement, sand & grit mix to the polystyrene boxes coated with PVA adhesive. Last winter I had access to a good number of small polystyrene boxes (33cm and 29cm square and 26 and 23 cm high respectively) which I deemed too small for using for troughs. I came upon the idea of stacking them one on top of another to make a tower and then planting through the vertical trough walls. This structure would then allow me to potentially have a 360 degree aspect for growing plants, the other advantage would be that I could potentially grow many more plants in a given area (33cm square) as I'm running out of room in my suburban garden.

In order to stabilise the tower so it wouldn't fall-over a hole was dug and a concrete plinth pored to match the dimensions of the bottom trough, a length of angle iron and a 33mm plastic pipe (with small holes drilled to help with watering) were set into the centre of the plinth to add structural stability. The majority of the base of each trough was removed so that the trough could be treaded over the angle-iron and pipe into place and also to make the inside of the structure one continuous tube of planting mix so that water could penetrate down through the structure. PVA adhesive was used to glue the first trough to the concrete base and subsequent trough layers to each other.



Partially prepared boxes

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First trough in position - Note the bottom of each trough has been removed, the trough walls were either 45mm or 65 mm thick.

As I had two different sizes of troughs available I decided to rotate every second one (the smaller troughs) through 45 degrees, I wanted it to be obvious that the structure was composed of a series of boxes and not just one continuous upright cube. As each new trough was added and glued into place the planting mix of 50:50 John Innes No3 and grit was added. Only one level was added at a time in order to let the planting mixture settle and the glue to set. This rotation of the troughs had the advantage of creating "ledges" that could also be planted and additional access points for watering.

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Trough tower after 4 out of the 5 troughs added: troughs were weighted down with additional weight for 24hrs for the glue to set.

Note the twist of every second layer and the creation of the ledges.

After completing the tower 5 troughs high the next task was to drill the planting holes through the trough walls, this was done at a slight downwards angle to help rainwater retention. I used a 30mm circular drill bit to drill the holes and then made good the holes using PVA adhesive and the dry concrete mix.

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A finished tower prior to planting with drilled holes made good.

I had a collection of porophyllum saxifrage from Bart Moerland of Alpigena Saxifraga nursery Netherlands, various alpines from Gerd Stopp, Germany, ordered over the internet plus some silver saxifrage propagated from cutting waiting to be planted. This is when it got interesting, when I went to plant up the structure I found it impossible to introduce the planting mix into the whole (which needed to be filled before planting as the trough walls are relatively deep and to ensure a continuous connection between the soil in the planting holes and that running down the middle of the structure) without the majority of the mix falling to the ground. I quickly gave up that day and went away defeated to think again ! The solution to this problem came to me during the following week, I sawed the top off a 60 syringe and used this to inject the soil into the planting hole, this had the advantage of been very quick which was important as I had 36-37 holes to filled for each of two towers constructed. I got lucky with this idea as the diameter of a 60ml syringe was also 30mm so the syringe filled perfectly. After filling the holes some of the planting mix was removed to plant the alpines in and either a 20ml or 10 ml syringe with the top removed was used to inject the planting mix around the root-ball of the alpine to firm the plant in.



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20ml and 50 ml syringes with the tops removed for planting.

60ml Syringe injecting mix into the trough wall.



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The newly planted tower to the east of the glasshouse in June 2020 – 6 troughs high on the concrete plinth.

How have the plants fared in this environment? This spring and early summer were exceptionally dry and sunny so it has been difficult for the plants to settle in and the towers have required regular watering. I think once the plants have rooted into the centre of tower out of the (45mm-65mm deep) planting hole they will be better able to withstand what the weather throws at them.

The situation of the two towers in the garden has been a major factor in the ability of the plants to survive and thrive, one tower is on the southside of the glasshouse and is exposed to more sun and wind and some of the porophyllum saxifrage are struggling, while the plants in the second tower situated on the eastern side of the glasshouse out of the wind are thriving.

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Vertical view down the eastern tower in June 2020 showing “ledges” and planting through the tower walls.

As I become more familiar with the microenvironments and different aspects (N, S, E, W) of each tower in the future I'll be better able plant more appropriately for that environment as planting opportunities arise. Overall, I'd say the project is a great success as I can now grow a large number of alpine plants (approx. 37 plants per tower) in a very small footprint (33cm x 33cm) which is great in an urban garden. Also it opens up the opportunity to grown more difficult alpines that would generally suffer in my relatively high rainfall conditions.

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Saxifraga karacardia:
porophyllum saxifrages
have generally filled
out the original 30mm
planting hole within the
first 6 months.



Dianthus
haematocalyx subsp.
ventricosus growing
on a "ledge"

Photos, Ken Devine.