

NORTH AMERICAN ROCK GARDEN SOCIETY

The Rock Garden

QUARTERLY

SPRING 2018

CONTRIBUTORS

All illustrations are by the authors of articles unless otherwise stated.

Gerard van Buiten has been a plant freak from his childhood. He has been the head of the rock garden of Utrecht Botanic Gardens for ten years and is now overseeing the entire Botanic Gardens. His main interests are still the alpine flora of the European Alps, growing penstemon and eriogonum species in lowland conditions, and building sustainable rock gardens with recycling materialo

Paul Spriggs has been gardening and landscaping in the Mediterranean climate of Victoria, British Colombia, Canada, for the past 28 years as the owner of the landscaping company Spriggs Gardens. Crevice garden construction is one of his specialties. He is also a passionate mountaineer, plant propagator, flower hunter, photographer, and rock gardener. Most importantly, he is one of a handful of young(-ish) rock gardeners who are helping to keep the flame of rock gardening alive.

Kenton Seth is a 31-year-old practitioner of rock gardening who says he owes everything to the generous plant people of Colorado. He lives and gardens in western Colorado and works as a freelance gardener/landscaper. He promotes landscapes that don't need watering, crevice gardens, and wildflower appreciation, which he documents online at kentonjseth.blogspot.com

Bill Beuerlein "I spent a fifty-plus-year career as a mechanical engineer. While it had its interesting moments, gardening was always a passion. Ask any engineer and you will be told that engineering involves a surprising amount of (boring) technical writing. How nice it is, now that I am retired, to use this skill to write about the subject I enjoy so much. Besides, my son, Scott, is a horticulturist at the Cincinnati Zoo and Botanical Garden and writes for several magazines and I like to show him that the old man still has his head in the game."

Lori Chips has been committed to the exploration of alpine plants since her student days at the New York Botanical Garden. She has been Alpine Manager at Oliver Nurseries for 21 years. She has taught classes at NYBG, and has lectured and written many articles for the North American Rock Garden Society. As a botanical illustrator, her artwork has appeared on the covers of the NARGS Quarterly. She is the recipient of the Carleton R. Worth Award for horticultural writing. Lori lives and gardens with her husband Joe, without whom there would be less rock in the rock garden.

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Bob Nold was dragged kicking and screaming to Denver in April 1961. There was snow on the ground. He took that as a bad sign. It was. His garden is located at the western edge of the Denver metro area, in the rain shadow of Mount Evans; the garden receives, on average, 10 inches of precipitation a year. He eventually came to terms with this and now grows mostly bulbs, a few dryland plants, and the odd conifer. He is the author of *Penstemons* (1999), *Columbines* (2003), and *High and Dry* (2007).

Sara Malone has been gardening since her New Jersey childhood. In 1997 she moved to her present home, in Sonoma County, California, where she has developed a distinctive style of gardening that emphasizes the use of shrubs and trees rather than herbaceous perennials. Her garden has been featured in *Fine Gardening* and *Garden Design* magazines and she lectures and writes on conifers, trees and foliage gardening. She and Jan LeCocq are the author and photographer, respectively, of www.formandfoliage.net. She is the website editor for the American Conifer Society.

Front cover: *Primula allionii* at the Utrecht University Botanic Gardens, Gerard van Buiten

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volume 76 | 2

Spring
2018

From the Editor	109
The Rise of Dutch Urbanite, GERARD VAN BUITEN	110
Passing the Torch: A Private Tour of Czechia's Rock Gardens, PAUL SPRIGGS	118
Bloodlines in the Rock Garden, KENTON SETH	134
Lost and Found, BILL BEUERLEIN	144
The Perfect Stone, LORI CHIPS	152
<i>Notocactus</i>: Gems in a Historical Genus, MIKE PAPAY	160
Hardy in Denver, BOB NOLD	164
Is That a Rock in My Conifer Garden or a Conifer in My Rock Garden? SARA MALONE	168
Bulletin Board	176

From the Editor

It is SPRING, people! Or, depending on where exactly you are gardening, it shortly will be. I'm wildly excited, of course. This is my first spring in a new garden, and I'm relieved to discover that nearly all of the plants that I moved from my old garden last fall have made the move without problems. That includes, unfortunately, a couple of weeds that I mistook for something else while dormant and are now growing far too happily. You'd think I'd know better. There have been some losses. I overestimated how kind my new, warmer climate would be to a couple of not-as-hardy-as-I-thought agaves, and some things didn't survive being dug up and hauled across several states. But my seeds from the NARGS seed exchange are beginning to germinate, and I'll shortly be able to fill in all my open spaces with new babies. Hurray for spring!

If you, too, are feeling the energy rush of spring, this issue is packed with ideas that will get you turning that excitement in interesting, productive new directions. The pages that follow cover innovative spherical crevice gardens made of urbanite, the great private rock gardens of Czechia, the virtues of letting some plants die, a mystery story of unearthing (literally) one of the oldest rock gardens in the US, how to find the perfect stone, a beautiful group of cactus to try growing, and a dive into the facts behind the myth of plants that are hardy only in Denver. There is, I think, something for everyone.

Finally, I'm excited to run an article by Sara Malone, of the American Conifer Society. We're doing a bit of cross-promotion – I wrote an article for them, and she wrote this article for us. We plant societies need to stick together if we're going to survive in a new generation, and I hope you enjoy her article and consider joining the conifer society... and, of course, once you do, I hope you encourage their members to join the BEST plant society, NARGS.

As always, I welcome your feedback on what you liked or didn't like in this issue, what you would like to see more of in the future, and any other comments or requests you may have. My email inbox is always open! gsparrowgardens@gmail.com



The Rise of Dutch Urbanite

GERARD VAN BUITEN

UTRECHT UNIVERSITY BOTANIC Gardens have one of the biggest rock gardens in Europe. That is bit peculiar, maybe: Utrecht is at about 3 feet (1 m) elevation, and the Netherlands have hardly any natural rock. However, according to photographs, the old botanic gardens in the historical city center had a rock garden as early as 1900. These rock gardens were small, but enough to show biology students the adaptations of high alpine plants to their harsh natural environments. Later on, when the Botanic Gardens obtained an English landscape park in the nearby village of Baarn, a bigger rock garden was built. No natural rock was used for building this rockery: it was built with slag, the waste product of steel production.

When the University planned a new campus at the Johannapolder around 1960, there was an old fortress in the heart of the area. Its huge bomb-safe bunkers were covered with feet of soil to produce what, to the Dutch, are “mountains” 40 feet (12 m) high. In 1963, construction of rock gardens on these “mountains” started and was more or less finished ten years later using over 2100 tons of limestone rock imported from Belgium. As a garden is never finished, we have been continuously developing new features and details like a peat bog, a moraine, and peat beds.



Chlastophyllum oppositifolium growing on slag.

During the 1980s, the gardens had hardly any money for new developments. However, the gardeners at the time were not the kind that could be stopped by such minor trouble, and they turned to using waste materials to build new gardens. Some small displays near the entrance building were built of old paving stones and roof tiles. When the alpine house was built into one of the remote slopes of the fortress, a huge retaining wall had to be built. They used broken concrete



The first broken-concrete retaining wall in the garden being built in 1989.

Photo by Wiert Nieuman

curbstones and concrete paving stones, mostly 1 ft by 1 ft (30 cm by 30 cm), the most common concrete paving material in the Netherlands. Those stones were freely available as waste material from road construction sites, and thus, were very cheap. The horizontal layers of the roughly 2.5 inch (6 cm) thick stones were stacked with only a thin layer of the normal clay garden soil in between. This wall was my first introduction to “recycling gardening” when I visited the Botanic Gardens as a boy in horticultural school.

In later years hypertufa troughs were made and grouped at the foot of this wall, showing a display of the adaptations of high alpine plants like mat and cushion shapes, sun protection, and ability to grow in mineral soils and rock.



Edraianthus dinaricus growing in crevices between recycled concrete blocks.







Previous pages: The spheres in spring bloom.
Above: One of the spheres under construction in 1995. (Photo by Wiert Nieuman).

The Global Spheres

In 1995, on the occasion of the tenth anniversary of the Dutch Rock Garden Society (NRV), a rock garden show was built at the gardens. One of the highlights was an enormous sphere built of the same broken concrete paving stones. The perfect shape and the layers of black slate marbling the construction were the ideas of my predecessor Wiert Nieuman who was inspired by the work of Andy Goldsworthy and Czech crevice gardening.

Building the structure was quite an experiment. A steel pipe that feeds a water sprinkler on top was first placed and used as a center point. A mold of plywood was placed to make sure the globe would be a real globe, and not a cone or an egg. A circle was drawn from the mold with a piece of rope, and the first layer of broken concrete slabs was placed: first the outer circle and then the inner was filled. The crevices were filled up with normal garden soil, and the whole first layer was covered with 0.8 inches (2 cm) of soil. Mixing this soil with some grit or scoria keeps the soil from compacted too much between the layers. The next strata were placed in the same way, every layer in a circle a little wider than the one beneath. Once the maximum width was reached, circles became narrower again, and the globe flattened on the top.

Many choice alpiners felt perfectly at home at this concrete rock: *Daphne arbuscula*, *Salvia daghestanica* at the sunny sides; *Dionysia aretioides* in the rain shelter and *Haberlea*, *Ramonda* and *Primula allionii* (see front cover) in the more shaded sides. Two more spheres were built the following years.



Haberlea rhodopensis (top left), *Saxifraga canaliculata* (right), and *Armeria juniperifolia* 'Drake's Deep Form' (bottom left).

Tilted Strata

Around 2000, the retaining wall and alpine house were to be renovated. While making plans, we thought of making diagonal crevices with the concrete slabs, inspired by the tilted strata of rocky outcrops one sometimes finds in nature. By using a diversity of concrete paving stones with different sizes and surfaces as well as discarded basaltine curbstones, we created a nice pattern through the wall. The final result is a huge retaining wall 100 feet (30 m) in length and over 6 feet (2 m) tall at the highest point. The alpine house was integrated into the end of the wall and built using tufa rock obtained from a renovation project of an ancient church in Amersfoort.



The tilted strata retaining wall and alpine house. Photo by Wiert Nieuman



Roof tile raised beds with spheres in the background.

Roof Tile Raised Beds

A few years later the raised beds near the entrance were completely rebuilt using baked clay roof tiles. These roof tiles are very common in the Netherlands and available in many models, glazed or not, and mainly in red or black colors. Their baked clay provides a porous material, and the strata of broken sides remind one of black slate. The old grayish roof tiles we used were waste materials from a renovation project. The tiles were broken and stacked horizontally with a layer of garden soil in between. The tiles are curved, and we placed the hollow side facing up to catch and store some rainwater. The body of the raised beds was filled with garden soil mixed with grit to provide perfect drainage. The rubble of roof tiles that was left at the end of the building was crushed by driving over it with the tractor and used to mulch the surface of the beds. The top of the beds are covered with a polytunnel roof seasonally to protect plants from our wet winters.



Saxifraga cochlearis 'Probinii' growing between roof tiles.



Concrete sewer pipes sawn in half form the main structure of a tufa bed.

Some huge concrete sewer pipes were sawn in half, partly dug into the ground and the space between them was filled with gritty soil and tufa. Facing towards the entrance of the gardens, they form the background for a group of stonework troughs.

These raised beds and other structures are meant to inspire visitors and to show how a cheap, sustainable and attractive rock garden can be built in a small Dutch backyard.

New Materials to the Test

The idea of using wasted building materials instead of expensive rocks from abroad has inspired us and many others in the Netherlands. The use of broken concrete paving stones for retaining walls is so widespread nowadays that you can even find walls built of broken, brand-new paving stones!

At this time we are testing something new: the white blocks of “aircrete” (autoclaved aerated concrete) commonly used for interior walls. As a waste material, it’s at hand everywhere, but it looks awful. Curious to find out whether plants are willing to grow in this very porous and gypsum-rich material, we have filled a trough with chunks of it. And yes, they love it! Moisture and frost don’t seem to harm the material, and even better, after a couple of years, algae and lichen soften the horrible white to a more natural-looking gray. Next test will be stacking layers to see if the weight will crush the blocks or if they will be useful for durable outdoor constructions. One of the major advantages of this material is its light weight which opens the way to rock gardens on roofs in urban environments. That may bring alpinists to unexpected heights, even in the Netherlands!



Weathered aircrete blocks after a couple of years in the garden.





Passing the Torch: A Private Tour of Czechia's Rock Gardens

PAUL SPRIGGS

IN CASE YOU hadn't noticed, Czechophilia is running rampant in western rock gardening circles, and for good reason. Over recent decades in Czechia (formerly referred to as the Czech Republic), one of the most accomplished rock garden cultures in the world has been evolving. This evolution is due to the efforts of some of the best plant hunters, seed collectors, hybridizers, and innovative rock garden builders of our time.

I am fortunate to call one of these Czech pioneers my friend. His name is Zdeněk Zvolánek, famously known as ZZ. In the early eighties, while still under Communist rule, he was allowed to travel west by special permit. He went to the United Kingdom where he learned from the likes of Jim Archibald, Ron McBeath, Alan Furness and Ron Beeston. He then traveled to America in 1983 where he was influenced by Panayoti Kelaidis, Baldassare Mineo and Lincoln and Laura Foster. I started benefiting from his associations with these great gardeners and his own spark of genius when I met him through the Vancouver Island Rock and Alpine Garden Society (VIRAGS), back when he used to live in my town, Victoria, B.C. He saw my passion for rock gardening and as time went by, he cultivated my skills as I worked as his humble apprentice building several local crevice gardens. His goal was to disseminate his artistic and theoretical ideas to the new world. Since he moved back to Czechia, we've not lost touch. Whenever the Czech Rock Gardeners Society holds a conference, I'm always warmly invited to stay in the guest room upstairs in his cottage next to his garden in Karlík, which he calls the beauty slope. But in 2017, ZZ had more in store for me than just a place to crash and some subversive rock-garden

Top: Four crevice gardeners: Paul Spriggs, Kenton Seth, Josef Halda, Zdeněk Zvolánek.
Opposite: Drama in the garden of Zdeněk Zvolánek

conversation.

Passing the torch of rock gardening to the next generation is important and ZZ knows this. He proposed a private, three-day post-conference tour to visit the *crème de la crème* of Czech rock gardens, meet their owners, gain experience and learn from the best. I immediately asked if my partner-in crime, Kenton Seth could join us. For me, it was imperative that Kenton come, as the two of us are currently co-authoring a book on the subject, and Kenton and I had shared a common passion for crevice gardening for years. ZZ already knew of Kenton's achievements in America and showed no hesitation when I asked if he could join us. The three of us touring together would be a dream come true!

A number of factors are responsible for the expansion of Czech rock gardening. Most notably, the Czechs benefit from a continental climate that favors the growing of alpine plants and a long history of rock gardening in the country. The gardens at Průhonice, outside of Prague, featured rock gardens way back in 1886, and Czech author Karel Čapek discussed the rock garden at length in his charming work, *The Gardeners Year*, published in 1929. It wasn't until 1971, however, that the Prague Rock Garden Club was formed, as regional interest in the style blossomed. At its peak in 1986, the club boasted over 1000 members, giving a whole new meaning to the term Prague-rock!

Even before the Velvet Revolution of 1987, Czech seed collectors were giving western rock gardeners a sneak peak of their discoveries through participation in seed exchanges. Before the former Czechoslovakia was freed from Soviet rule, Czechs were forbidden to travel west. Learning Russian in school, rather than English, made for easier travel in the former Soviet republics, where communication was not as much of a barrier. This



Edrianthus pumilio



Czech crevice gardens are big and dramatic, as here in Josef Halda's garden.

gave the Czechs a head start for botanizing in places like Georgia's Caucasus Mountains, and Kyrgyzstan's Pamirs where some of the richest mountain floras were just waiting to be discovered. On top of all this is the seemingly natural ability of the Czech people to excel in many art forms where attention to creative detail is concerned.

The Czech rock garden aesthetic is to build high and dramatic, yet stick to only the smallest and slowest growing plants. Bonus points added if you travel to some exotic land and collect the seeds yourself. Although the crevice style made popular by Josef Halda, Zdeněk Zvolánek and others is predominant, it can have many interpretations depending on the artist and the rock available, ranging from geometric accuracy, using a compass for perfectly oriented straight lines, to reproductions of tilted or folded strata, to the most random free-form placement you can imagine. As long as it's big, bold and it grows plants well, it's acceptable. Imitation of nature is also a dominant theme in Czech rock gardens. It is evident that the builders have spent a considerable amount of time on the mountaintops studying the rocks and the plants that ornament them.

In almost all the gardens we saw, the only space not devoted to naturalistic or artistic rock garden design were the propagation and plant holding areas which, in most cases, were extensive in both square footage and plant diversity. Plant nurseries were featured in all of the gardens we visited, and we were offered many plants that we admired in the gardens. Kenton and I had to decline these offers due to impending border crossings, but ZZ came home with a large box of the choicest alpines you could imagine. It's no wonder his Beauty



Vladimír Valenta's nursery area.
Photo by Kenton Seth.

Slope in Karlík is one of the richest private rock gardens in the world.

Getting to see the fruits of this rock garden culture is not easy. Though Prague and environs host a multitude of fine gardens, such as ZZ's Beauty Slope in Karlík, Jiří Papoušek's garden in Rotosky or Vojtěch Holubec's boulder garden just north of central Prague, many are located out of the capital, in family cottages, small towns and farming villages quite distant from the city. In addition to the geographical hurdles to overcome, the language also poses a problem as most English speakers find Czech a difficult language, and many of the older garden owners in Czechia do not speak English. Fortunately, the three Czech rock garden conferences to date have exposed western rock garden enthusiasts to some of the best they have to offer. Nine gardens located closer to Prague were on display as part of the 2017 conference which, in addition to the gardens of the three mentioned above, also featured the incredible gardens of Martin Brejník, Petr Diviš, Stanislav Čepička, Jiří Pospíšil, and Jiří Sládek. The Prague Club's magnificent show garden in Charles Square rounded out the gardens visited during the conference.

Every garden we visited on our post-conference tour offered us food and drink. It was obvious that this hospitality was part of the culture. Beer was a staple offering (ah, the beer!!) but sadly, as the driver, I had to abide by the strict Czech drinking and driving policies, probably for the better. Fortunately, a non-alcoholic substitute was always available for those of us who could not partake of the Pilsner. We were made to feel at home in their spaces and, with ZZ as a translator, were able to ask the questions we needed of the garden owners. Here we were in the presence of the Czech masters and we came away from every new garden feeling energized and empowered.

Opposite: *Daphne petraea* in a natural crevice in the garden of Vladimír Valenta.



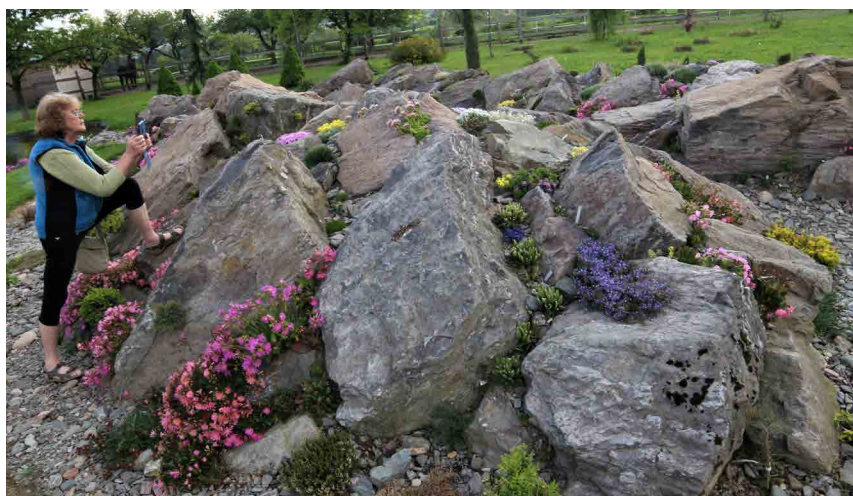


Conifers (above) and crevices (below) in Vladimír Valenta's garden.

The last day of the rock garden conference ended at noon. After the goodbyes to friends old and new, ZZ, Zdena (ZZ's partner), Kenton and I were off. No time was wasted. After a brief consultation with the road atlas, we packed Zdena's tiny Renault to the rafters with three days of travel supplies, and headed out towards Eastern Bohemia. Little did we know that we would be visiting three gardens that day! The weather was fine, and I was in the driver's seat, and we were heading down a new road into new territory. We weren't totally sure what was in store for us in the days ahead, but we knew it had the potential of being life changing... and we were right!

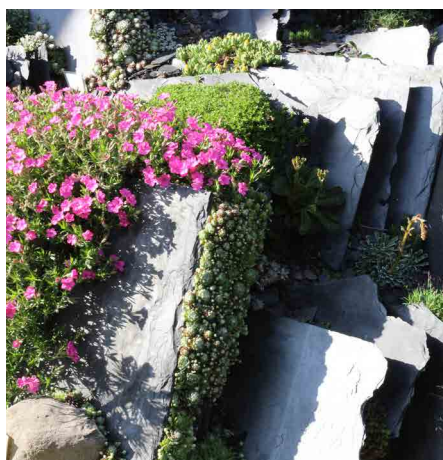
The first garden we visited was the nursery of renowned Czech dwarf conifer grower Vladimír Valenta of Bělečko. Before all else, Mr. Valenta is a nurseryman. His large farm property surrounded by forest has been run as a nursery for over 25 years. Aside from the extensive greenhouse and field grown stock areas, the property features a large crevice garden, extensive troughs, ponds with fish, and some of the hugest rocks you've ever seen installed in a residential setting. Mr. Valenta is well known all over Czechia for his grafted conifers and I believe it's safe to say that he is the Conifer King. Grafted witches' brooms are a staple of fine Czech gardens and Mr. Valenta is largely responsible for providing some of the best. His production output is huge as he supplies much of the Czech Republic with nursery stock. Most of these are witches' brooms grafted on rootstock of more robust conifers. The greenhouses are also packed with thousands of alpiners ready for sale.





Zdena in Zdeněk Čančara's Garden

Our next visit was with Zdeněk Čančara, a legend among Czech rock gardeners. His property is also a farm; however, in contrast to the forest surroundings of Vladimír Valenta, the garden is surrounded by open pastureland which evokes an airy, mountainous feeling. A dark cloud with associated thunder rolled past while we were viewing the garden adding even more drama to an already dramatic scene. We entered the sunken alpine house while the rain passed by, then continued to view the garden as the sun returned bathing the outcrops in glorious light. A religious rock gardening experience! Mr. Čančara lives just a stone's throw from the great Josef Halda. The two are collaborators, as Mr. Halda has built all the rockwork here over a period of years. These rock outcrops, the highest of which reaches over 10 feet (3 m), feature large boulders arranged at varying angles and generally tilting to roughly 45 degrees. The construction echoes the chaos and randomness found in the mountains. This could be referred to as freestyle rock placement. There is an overall flow, but it is regularly broken by stones, placed at odd angles, some of which are enormous. This creates a sense of drama like we had never seen in a rock garden. The massive outcrops, whose size and planting rival any found in botanical gardens, are placed as islands in a sea of turf, contributing to the mountainous feel. We were so enthralled at viewing such a pure example of Halda's work, that we almost forgot the next stop on our tour was the garden of Josef Halda himself!



Slate crevices by Josef Halda in Zdeněk Čančara's garden.



Warning sign at Josef Halda's

ZZ phoned Mr. Halda from Mr. Čančara's teahouse while we were enjoying some refreshments. He said he was traveling with two North Americans who wanted to ask him some questions and we would be there in half an hour. On ending the call, he said that Halda was leery, but would see us and show us the garden. We were a bit nervous of how we would be received, but we were on a mission. A mission of enlightenment and this was perhaps one of the most important gardens to visit. ZZ was Josef Halda's apprentice in

the early 1980s; the two of them first worked together on the Club's demonstration garden in Charles Square in central Prague. I had heard so many stories from my time working with ZZ about "Big Joe Halda" as ZZ affectionately calls him that this meeting seemed fated to happen.

The sign at the property gate reads FORBIDDEN ENTRANCE – Falling Rocks! Yet we were warmly welcomed by Mr. Halda and his wife Jarmila. As it was getting dark when we arrived at the garden, most of our visit took place over coffee at the kitchen table, with a soundtrack of baroque music emanating from the small radio on a shelf. Over a period of four hours we sat, discussing all aspects of rock gardening. Here we heard first-hand tales from a modern day plant hunting legend. We covered daphnes, dwarf conifers, and the finer points of crevice gardening. We discussed gentians, peonies and how to properly plant *Daphne petraea*. Here we learned and achieved what



Some of Josef Halda's extensive dwarf conifer collection.

we came to do and we felt that in some small way, the torch of rock gardening was being passed to us. The time went by very fast, and before we knew it, it was midnight. It was getting late, but due to the dark, we had hardly seen the garden! We were invited back the next day to photograph and tour, when we spent a further two hours discussing and learning.



The crevices of Josef Halda's garden.

Joseph Halda's garden is located in the mountains which form the northeastern border between Poland and Czechia. At 2200 feet (700 m) elevation, it is a very different climate than the hot, baking gardens of Prague. There are some years that the garden is still covered in snow until mid-April! The house, built by Mr. Halda, is nestled among conifers in an open, park-like setting. A natural mountain stream, crossed by a bridge to the front door, rushes past the house, and the sound of birdsong filled the air. The cool, moist climate of this mountain garden allows him to grow so many of the plants from his trips to the monsoon regions of the Chinese mountains, including many of the plants he is famous for discovering and introducing to cultivation. Dwarf conifers also feature prominently in this garden. An amazing 2000+ specimens adorn his rocks, mainly selections from mugo pine witches' brooms. Many of these are displayed in the huge sandstone troughs that Mr. Halda himself hews. "It takes me all day" he explained when I asked how long they take to make. They look like they should have taken a lot longer than that! The sheer volume of rock in this garden was overwhelming. The crevice garden, hundreds of square feet (tens of square meters) in size, resembles a virtual ocean of rocks, placed in the most sublime and dramatic ways imaginable.





We asked a lot of questions, and got a lot of answers. My last question for Mr. Halda was: "Who taught you how to build rock gardens?" He delivered his answer with a straight face and without hesitation... "God." Then, with his thumb pointed at his chest pronounced with a laugh "and I... am Jesus." For someone who has spent as much time studying mountain landscapes, I feel his response, in a metaphorical sense, was as legitimate as it could get. Good answer Mr. Halda, good answer.

Our next garden was that of the late Jaromír Greulich. One reason for visiting this garden was historical. The other was that it is located right next door to the Halda garden. This is no coincidence and I'm certain that each garden has mutually benefited from the other. Jaromír Greulich died in 2009, but in the four decades that preceded his death, he turned a massive natural cliff face into a thriving rock garden. He was also an important member of the Czech rock gardening community. The garden, which is open to the public for a small admission charge, is run and maintained by Mr. Greulich's widow. She greeted us from the balcony of her chalet, and was thrilled to see that it was ZZ who was dropping in unannounced. Kenton and I climbed the goat trails while the elder of our group stayed below. We climbed hundreds of feet in elevation, past planted clumps of mugo pines brought down from nearby higher mountains, and a multitude of alpines growing from the natural crevices. From the top, the view of the open, park-like countryside was incredible! Here we sat and meditated to the soundtrack of the spring songbirds.

Next on the tour was retired dentist Dr. Oldřich Maxiner of Sedlec. Although this was probably the smallest garden we visited, it was by far the most packed and efficient on this tour of packed and efficient gardens. This well planned garden, a getaway cottage property, seemed to have a little bit of everything. The garden is organized into "rooms" that feature a seemingly endless array of troughs, rock gardens, cold frames, alpine houses, propagation and holding areas. Dr. Maxiner is a saxifrage specialist and I was amazed when he showed me his collection of 30 different forms of *Saxifraga oppositifolia*! Sitting on the porch of the one room cottage, the view is directed over a small lawn, backed by a selection of long stone troughs, packed with nothing but the choicest plants. Continuing along the path, an older sloping rock garden is revealed containing many gems. At the top of the back slope there is yet another plant holding area filled to the brim with selections of the rarest and best grown plants that would make even the most seasoned experts drool! It was in this garden that I realized just how far ahead the Czechs are in this world. I was also starting to question the sanity of the garden owners as clearly, these collections are held by the fanatical and obsessed!

Previous pages: The view from atop Jaromír Greulich's mountain garden.

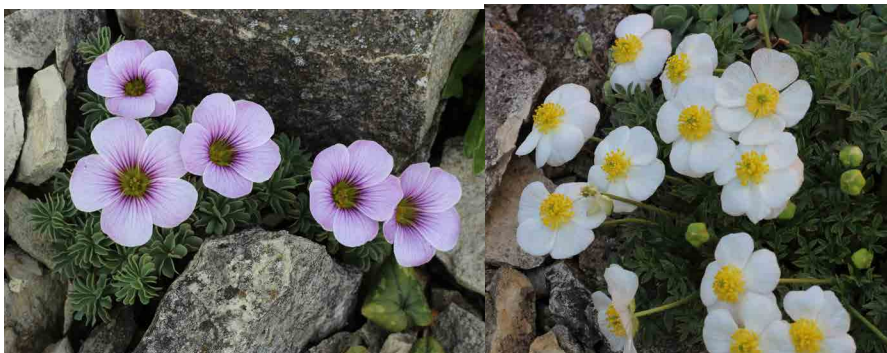


Top: The great Josef Halda in his garden. Photo by Kenton Seth.
Bottom: *Saxifraga* expert Dr. Oldřich Maxiner with Kenton and ZZ (right) and his sunken greenhouse (left)



Kenton admires the rockwork at Yaroslav Baláž's garden.

The garden of Yaroslav Baláž in the village of Dolní Rožinka was next on the tour. This was the most calming of the properties we visited. Perhaps it was due to the multiple streams that ran throughout the garden, appearing and disappearing under the rockwork, terminating in a koi filled pond. The birds here seemed especially prevalent, drawn to the water on this hot May day. Another suburban property completely devoted to rock gardens, Mr. Baláž's featured yet another nursery that was bigger than the "alpine" section of any North American garden center, another sunken alpine house loaded with orchids including a selection of *Orphys* and *Orchis* species, and extensive crevice and bulb beds that featured *Tulipa cretica*, and *Petunia patagonica*.



Oxalis enneaphylla (left) and *Ranunculus seguieri* (right).

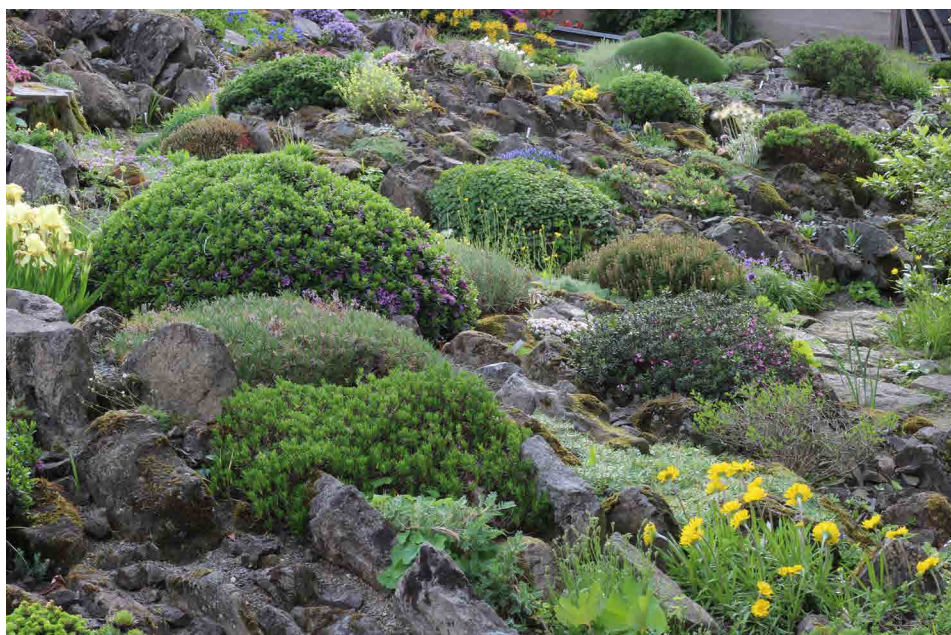
Next was the garden of Vlastimil Braun who was the youngest of the rock gardeners we visited, and also an English speaker which made communication easier. His garden, located in a residential setting in Žďár nad Sázavou, was (as usual) almost entirely devoted to rock and alpine gardens and featured an extensive self-sown *Lewisia* bed which was in full bloom, troughs, and an impressive vertical tufa wall. A younger garden, it was not as mature as those of the older masters, but it was clear that Mr. Braun had years of experience behind him, and was showing no signs of slowing down. After refreshments, and conversations, we exchanged emails, and I couldn't help but wonder if the connections we were making would last our rock gardening lifetimes.

Perhaps one of the most eccentric of the gardeners we visited was Milan Odvárka, of Zdešov in southern Bohemia. A landscaper by trade, Mr. Odvárka has developed a sprawling mountain range on the grounds of his large rural property, which has a forested park as a backdrop. Our morning visit began with the usual Czech hospitality, this time in the form of homemade moonshine of which Kenton was the only one able to partake. Nothing like an early morning buzz to set the tone for a rock-garden visit!



A slightly tipsy Kenton Seth takes notes in Milan Odvárka's garden

After the refreshments, Mr. Odvárka then led us on an exhaustive tour of his grounds which included high mounds composed exclusively of rotten granite. You would be amazed at what is growing in there! The familiar faces of North American *Penstemon procerus* and *Lewisia brachycalyx* caught my eye, and of course specimen after specimen of blooming daphnes! The rockwork adorning the granite heaps could best be described as freestyle and conforms to no geological rules, mimicking the randomness of a mountaintop boulder-field covered in choice alpines. Of all the gardens, this one felt most like real nature. Adjoining the rock mounds are extensive bog and woodland gardens, an incredible conifer collection, a lake filled with fish, and of course, a propagation area. In his spare time, Mr. Odvárka is a wood carver, a heavy metal enthusiast and has a pet fox.



The rich gardens of seed collector Vladimír Staněk

By now we were getting close to the end of the three days and were wondering just how much more of this we could take! I could feel a certain exhaustion coming over me after this marathon and noticed that Kenton was dozing in the back seat of the Renault. We perked up immediately however on hearing who we were visiting next. Another celebrity in the Czech rock gardening world, Vladimír Staněk of Sedlčany is renowned for his annual seed list which he amasses from numerous yearly trips. His 2017 list features an amazing 714 species collected from Spain to Szechuan and much in between including the

Tian Shan, Pamir, Altai and Himalaya. This guy really gets around! His garden reflects his travels. Here, the fruits of his labor are displayed to their best in his sloping suburban property. The main rock garden encompasses all of the back yard from fence line to fence line, bordered in many places by an extensive collection of azaleas in full bloom, providing a colorful backdrop to the rock garden. Also on the property were a woodland garden, another sunken alpine house, and of course an extensive seed propagation area.



Seed collector Vladimír Staněk (right) and *Asperula gussonii* in his garden (left)

The drive from Mr. Staněk's to ZZ's in Karlík is not far, and we were back at the Beauty Slope by dinner. We were exhausted but also invigorated. Having visited some of the old masters, many of whom have been actively rock gardening for 40+ years, the realization that we are babies in this world and that there is still much to learn really hit home. Fortunately, time is on our side in this regard. Now is when the need to pass information from the older generation to the younger is even more important than ever. This is what our journey was all about.

The morning we left Karlík, I had the luxury to spend an hour alone up in the garden while Kenton and ZZ drank coffee in the cottage far below. It seemed fitting that we should end our journey here. Zdeněk Zvolánek is currently the main link between east and west, but also between old and young. When we first met, he used to joke "We have very big problem...I am too old, and he is too young," referring to his aging body, and my lack of knowledge! In subsequent years, we have worked on closing this gap, and this journey was a big part of doing that. The torch had been passed. During that meditative hour, I tried to process everything I had seen and learned, and concluded that doing so was going to take quite a while ...perhaps even a lifetime.

Bloodlines in the Rock Garden

KENTON SETH

I'VE BEEN THINKING and worrying a lot about the bloodlines of plants we keep lately. Now, the rock garden posse, as a whole, aren't greenhorns at making plants from scratch, since that's what makes them happy: growing things they can't buy at the big box store, let alone garden centers. But times are a-changing, and there's a generation gap. Young plant lovers are not going into nursery work yet, so the baton is getting dropped between them and the old guard, the great librarians of rock garden plant genes. I'm afraid we'll wake up one day to find that no one has kept up certain plants. Now don't think I'm crazy, I'm a spring chicken among the old timers, but I've seen it, and it's happening more and more! Folks have to go back to wild places and collect the same plants again – not to refresh the bloodlines, but restart them. Why didn't we keep enough around to keep these plants going?

Don't think you don't have plants in your garden that must be shared and passed on. More gardens than not have a plant, maybe an old forgotten but beloved conifer, which is no longer in catalogs, or in this country. Valuable bloodlines live in your garden; it's your



Nursery spaces in the garden allow valuable plants to be preserved and shared.

responsibility to keep them going. If someone hadn't done that when you were a new rock gardener, you wouldn't have the garden you do. No matter how fancy or rare some plant may be, you better get it a mate, I say.

Fact is, some great known rock garden plants have been lost. I heard a story from Panayoti Kelaidis about the elusive orange phlox: how it grew along a dirt road in Mexico, was collected, grown, even showed up in garden plant encyclopedias. And now? No one's seen it lately in gardens. And the original wild patch? Turned under the bulldozer for a big four-lane road. Even if they are not extinct or endangered, plenty of hidden treasures in backyards have lived out their natural lives amazingly but gone no further when the reaper came for them. I think a lot of folks don't know how easy it is to participate in keeping the bloodlines flowing.

Seeds from Afar

This internet thing has blown your seed options wide open. You can get narcissus seed from Australia, iris from the Holy Land, and some pretty crazy onions from Sweden (I didn't know anything but fish came from there). And we've got these plants clubs like NARGS, Scotland's The Rock Garden Club, Alpine Garden Society, special plant societies, and local clubs like the Alpine Garden Club of British Columbia in Vancouver, which have seed exchanges to distribute seed among their members. You've got no excuse for not giving or taking a share to get those fresh genes flowing into your garden.

Next time you're in Calgary, Alberta, Canada, stop by Stephanie Ferguson's crevice garden, and you will see one of the wildest herds of vegetable sheep you can imagine. She grows almost every plant herself from seed, and almost all of those come in envelopes from places with funny names, so her place is the biggest candy store of botanical pleasure. I'm sure it's taken years to even get herself on mailing lists of these unpronounceable characters who climb volcanoes and glaciers for seeds, and she's put the postman to work, an ounce at a time, over the years, with all the envelopes of seed coming home. She didn't buy her garden from a garden center, and as a result, people from around the world come to see this real zoo of variety.

The truth is, bringing in seeds from farther away means you have a lesser chance of finding something that likes your climate, but you've got a much better chance of finding something rare in your neck of the woods. You bring in dozens and dozens of tiny glassine envelopes from Scotland and everywhere else, just hoping one of them hits its mark and proves to be your next good plant. It's worth the risk: just imagine how gratifying it is when those stallions you ordered from New Brunswick that did so well can be put to stud and shared with your friends!

Seed From Near

Your friends and buddies have the best plants, ever notice? Because their plants survived, and might even have adapted to, your local climate, they are the best source of blood for any given species. Your friends have gone through the trouble already of losing the weaklings and getting them used to their new home. Of course, some friend's seed and plants might do too well and become weeds, so watch out for that with your gun and vigilant fork-tongued trowel.

Seed from Home

The only thing better than your friend's seed is your own. You grew it, you like it, it likes you. It's right there, easy to grab seed, and easy to cross-pollinate if necessary. And you'll get lots of it- not a packet, but a cussed paper bag full! You can grow a lot of plants from that! And if you can't grow it all, you can pass it on to someone who will. I've gotta admit, these years, I've been taking a little break from all these real fussy foreign damsels, like those Persian princesses *Dionysia*, or oncocyclus irises. While there is great satisfaction in working hard – real hard – to get that seed, germinate ten, lose nine, plant one, pamper away for years, and then finally get down on your knees one fine spring to take a picture of that one surviving bastard, lately I've taken the easy road. There is a lot to be said for grabbing a fistful of my own seed, having it come up like dog's hair, finding them to survive when I forgot to water, having dozens more than I need even after planting out a proper herd of them in my place and leaving me dozens to give away. Easy plants are a legitimate pleasure, I say, and you'll find those in your garden already.

The fishhook nipple cactus, (*Mammillaria wrightii*) is a terrible plant name, and not originally from places as cold as here. But a friend of mine convinced some to grow, killing most of them, and gave me seed of the survivors. They were easy to sprout, and in a year I had thumb-sized babes to stick in my garden. Half of those died, but the other half bloomed in summer with flamenco-pink pinwheels in summer, months after the main cactus flower show in the garden. And they kept blooming and making little fruit like grapes. They were delicious, and the ones I didn't eat had seeds, which I grew again. They grew up faster this time, and now none of them die in winter.

A great man from ranching stock himself, Kelly Grummons, once told me that in the greenhouse world a few decades ago, bitterroot (*Lewisia*) "were considered ungrowable." But after years of trying and selecting some good growable stock, now they are breeding them for goofy colors, and you can buy one of the damn things at a grocery store!

The progeny of plants in your garden will be better suited to your garden. The more generations, the more they'll be used to the local



Thelocactus macdowellii seedlings. Grow and kill enough of these and you'll get a better adapted form.

weather. African stuff starts to grow better in Colorado, natives who have been "too wild" start taming down and acting nice in the fence. Give it enough time and they might even get weedy, if you're lucky. Harvesting seed from your own plants is when the game starts to open up and things get interesting.

Making Young'uns from Seed

Wintertime is sowing time. Gives you inside gardening to do when it's snowed outside. If you don't do this, you might be a lazy person, and you should consider trying it. There is a low barrier to entry and the satisfaction returns are high. First, you just need to have realistic expectations – because you are kicking butt if half of the foreign seed pots you sowed come up.

Look at someone else's small-time home winter sowing setup. It can be the size of a regular beer cooler, nothing crazy. Find a spot outside that is north or maybe east facing that you can water once a day in summer and ignore all winter. If it's covered, like a porch, you'll be stuck watering. And I know you city-slickers have a lot of little porches I see not being used. Maybe put the dog's water bowl there so you don't forget to water. Now you've got a nursery.

I'll suggest choosing pots that you have lots of already, like the ones you bought your plants in, or coffee cans, whatever you've got laying around. I tell you what, just get yourself one of those trays they've got at plant sales, it helps you keep the pots together and standing.



Manfreda maculosa seedlings germinating. Two generations in Colorado have tamed this wild Texan nicely.

Soils are a subject on their own, but I'll just say don't over think it. Make sure you've got something to hold moisture and something to let it go. Half perlite and half peat is a good example. I've been disappointed with sand; it seems to clog up the airways unless you engineer it just right. My favorite mix now, which seems to please the jungle, mountain, and desert plants alike, is equal parts peat, perlite, and expanded shale. Expanded shale is glorified kitty litter. Snoop around and see where you can find it or something that works the same. The old boys at Kew Gardens more than a hundred years ago in Queen Victoria's time used crushed pots. Clever buggers. I feel I should also mention peat. While it ain't great that the stuff doesn't grow back very fast out in the bogs, it's been hard to swap out in a mix. Coconut coir is full of promise and tropical smells, but unless it's diluted pretty well, it screws with most plants because of something called "phenolic compounds." Whatever they are, I've experienced that most of our plants don't like 'em. I'll keep working on that, and let you know what I find. In the meantime, all the happiest plants and still-living plants are growing in that equal-thirds mixture.

Sow fine seeds on the surface and cover with a little grit or gravel, and push bigger seeds down; the basic rule is four times the size of the seed is the depth to bury. I won't tell you how to make tags for your plants; everyone's got their way; just make sure you put lots of

information on them. Where the seed came from, when you sowed it, maybe how many seeds. Just before you stick them outside in your spouse-approved shady spot for the rest of the winter, give them a watering. When they are cold and wet, maybe even turned into little ice cubes in that tray, they start counting, and when they've counted their secret number, which is 3-5 weeks under 40° F (4° C) for most, they are poised to sprout when the spring warmth comes. The magic of winter sowing is that the seedlings will come up at the exact perfect time all by themselves. I usually seed new sprouts starting in February and different kinds keep popping up until May.

About the time you see your first sprouts is when you've got to start paying attention and checking to see if you need to water, but mostly to take in the pleasure of watching tiny baby plants start up. You'll find yourself watering once a week in spring, and daily at the peak of summer. Daily might seem like a lot of commitment, but it takes hardly a minute to do it with a fine sprinkle from a water-can.

Most alpine and rock garden plants are plantable in size by the following fall or the next spring, or at least ready for separating into their own pots. I like fall planting – there isn't so much a danger of under-watering those newlings – and you will have the right size of plant if you are one of those crevice garden fanatics who loves jamming plants in cracks so they grow smushed between rocks.

Raising Them

Raising the young plants is where we tend to kill a few off. Now, don't cry, this is a good thing. Even intentionally throwing away stragglers is cleaning out the bloodlines, cutting the fat from the genes. You don't want to encourage plants that want you to work too hard, do you? I find I lose as much as a quarter of my little tiny fancy plants; many go right after they are transplanted. If I'm feeling real lazy and clever at once, I'll stick sedum or sempervivum pieces right on top of a pot recently vacated and have half a tray of happy sedum instead of half a tray of dead twigs. Keeps your morale up!

Finding Sweet Spots

Of course, it's not all on the plant to thrive. That means you might have to kill a few to find out where they want to be planted. Maybe that lewisia, which only grows in rocks facing south in British Columbia, wants to grow on the east or north side in Colorado. Now how do you think someone figured that out? I bet you right now they killed a few. I've been killing those heavenly blue gentians trying to find out where you put them in the desert to make it. Making your own plants, and doing it in numbers, gives you the power to find the best (and worst) places for a plant.

Culling Losers

There is a portion of a batch of plants you should let die. Or even cull yourself. You got 11 *Acantholimon* seedlings from some man with the unpronounceable name? Two or three are weak and thin, maybe came up after the others? Do the future a favor and send them to the great compost bin in the sky – or the one in your back garden. You should cull harder from stock you have lots of, of course, and more from stock you grew. Precious threes and fours from overseas you can hold onto as broodmares for now, but once they get settled in, be hard on their kids.

I guess this also means that when some plant you liked in the garden kicked the bucket, you can call it an “intentional cull” in your “program to find locally adapted genetics” while you hide your tears. No matter how bad a gardener you are, there are so many plants on this planet that there are at least hundreds you can’t kill. So go find ‘em and don’t cry when a new recruit disappoints you.

I once planted a mess of hardy living stone (*Aloinopsis spathulata*) in Denver. Some from a friend in Salt Lake, some I grew, and some from a nursery which grows everything in a greenhouse. My friend in Salt Lake grows plants from the survivors of his cold winters. I grew mine from plants which make it through my mild winters. Well, these three bloodlines of plants were put to the test during a nasty, cold, wet winter. Half of mine died. All the greenhouse plants died. And none of Salt Lake stock did.

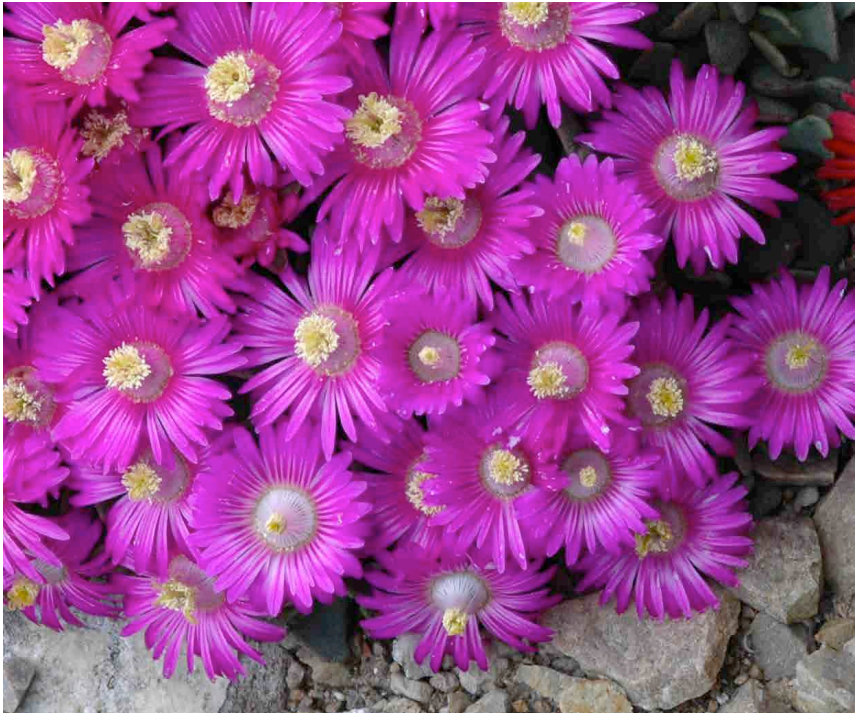
Finding Sweet Performers

Now, this is where the satisfaction comes. It’s realizing that one of your plants made it. Not only made it, but has become an outstanding flower machine, galloping along and making you happy every time you see it. Take note of the plants that are easy to grow, that bloom and are still alive in that corner of the garden you stopped looking after five years ago. Take note of your friends who don’t take good care of their plants and see what is doing well in their gardens!

Studding Winners

Now don’t just stand there and be pleased with yourself at finding a good plant. If you found a gem, mine it! Share some of the wealth, or, when the day comes to meet its maker, you will be sorry you didn’t put it out to stud. Collect seeds, take cuttings or give cuttings to someone who does that. Tell them the only price for the cuttings is to return a rooted plant or two! It’ll only make you happier to have two or three more of something you liked so much by itself.

Sometimes you’ve got to put some work into making stock when the birds and bees – and I mean that literally here – don’t do the trick



Cold hardy *Aloiopsis spathulata*. Photo by John Stireman.

for your plants. A bunch of plants are self-incompatible and don't do the dirty when they are by themselves. Or sometimes they need some screwball exotic bug to stick its special nose thing in there, and there aren't any of those where you live. Try looking it up and see what kind of kitchen or bathroom gadget will get the job done. Obviously, too, this means getting another plant (or planning for this by keeping and planting in numbers from the outset) but sometimes, and just sometimes, this means borrowing a stud.

My friend Trina down the road has one of those Brazilian golfball cactus *Notocactus haselbergii* on her windowsill like I do and those suckers are apparently self-incompatible. They just don't want to hanky-panky by themselves and prefer it the old-fashioned way. So once a year one of the plants goes over to the other's house for a sleepover. No pajamas – just a little paintbrush. Usually, both plants will get knocked up and sprout little green preggio fruits on top, like they are blowing tiny bubbles. We share the seeds, and I swear the ones that we get from our own seed are so vigorous they grow like little beach balls hooked onto an air compressor.

Super rare plants that you won't find in the stable down the road might require reaching further afield. I had to get pollen from a fella

from Kansas to wed with my *Iris paradoxa*. We happened to meet in Denver and he happened to have a flower to stud out. Twenty-one seeds in a pod a month later was completely worth the trouble. This is where clubs help a person's effort. The NARGS Rocky Mountain Chapter's own Rod Haenni has brought up the idea of a pollen exchange. I think this is something to figure out one day. But until there is an organized method any two people can share pollen in the way I learned from Tony Avent. Take the whole male bits (stamen) off of the flower, and set them in a little kitchen strainer over a bit of tin foil, and let that sit for a day, dry, inside. Knock all the pollen you can into the foil - the main thing is that it's completely dry - and fold the foil up to keep in an envelope in the fridge for up to a year. But you'll send it away to someone who needs it before that. The recipient will apply that pollen straight from the foil or with a brush or cotton swab onto the right (lady) part of his or her flower. Find out for sure where that is because I was embarrassed to realize that even though I'd been looking at iris flowers since I was short enough to see one eye-to-eye, I didn't know where the pistil was. (It's a tiny wave, a delicate downward-looking fold on the hood which hangs over the beard.)

The next step is gathering your seed. Some things drop it all at once, some things over time, and some things don't drop it at all until you come up and nab it. There are a million kinds of plants and dances they do with their seeds, but the easiest thing is to cut off the dried up flower stalks or pods or whatnot and stuff them in a paper bag. Let it dry for a week or so inside if need be. The bag will catch the falling seed and you can toss that stem out to the chickens. You can screen the seed with actual screen, which can be as simple as leftovers from that screen door the wind took off last year, or a set of "geological classifiers," which are worth their spendy price for the quickness they work. Or, you can gently scrape a credit card over the seed pile and you'll find that it tends to separate the "chaff," or useless bits, from the good seed, even though you look like a bonafide drug dealer while doing it.

Put those seeds in glassines, which you can order for NARGS, or just "coin envelopes" sold by places that sell staplers. My last strong opinion for you on this is to keep your seeds in the fridge if they aren't going somewhere important in the next couple of months. There are different ideas on this, but they are all wrong; keep them in the fridge. It seems to me that seeds stored at room temperature or warmer just don't come up well after a few years. My better half doesn't mind that the bottom half of our home larder is shoeboxes full of seed packets, all inside a big trash bag in case something catastrophic like a beer spill happens in there. Because beer is for drinking, and fridges are for storing seed.

Now, once you've satisfied yourself and secured your investment, it's time to do your due diligence and share!



Nananthus transvallensis is only hardy to zone 7. So far. More generations might change that.

Sharing

I like to put a quarter of a seed harvest away (in the fridge, you hear?) as backup in case my future self is better at this than I am now. The other three quarters? Here's where you get to pay it forward and join the cool dudes who get "donor status" in the seed exchanges. It doesn't take much. I think a lot of people don't realize that on a Monday afternoon in May, walking through their garden, they have passed by seed heads on the five plants which could have been their five taxa for the NARGS exchange.

When it comes to sharing, start nearby, then go far. And what if you think "The Gothenburg Botanical Garden would have no interest in seeds of this yucca I sometimes run over in my driveway?" You have no idea how those European boys love the wild wild west and imagine tumbleweeds and Conestoga wagons; they like our wild plants! Make 'em happy with a taste of the west.

Do the work. It's not much, but it is important. Ever wonder how you came to have plant choices that are so broad you could fill barns with them? It's been thankless work, shameless work, a constant pressure fueled by an excitement for something new, constantly taking little bites out of the boringness of gardens. It's making our lives better. Wouldn't you like to be part of something like that?

Truly, any movement of bloodlines into, out of, and within your garden, is good. Just bear in mind a few things: keep numbers of one thing, notice plants that treat you well, and do what it takes to pass their genes on.

Lost and Found

BILL BEUERLEIN

THIS COULD READ like an action movie script. A long lost tomb has been accidentally found by an archaeologist (played by a younger Harrison Ford) and a bumbling, ne'er-do-well "expert" (played by Peter Sellers) has been given the task of identifying the long-dead pharaoh. Immediately in over his head, he calls his father, who taught him everything he knows (played by Robert Redford). The doddering father, with plenty of time on his hands, leaves the Happy Hilltop retirement home and together, with luck and work, by following cold leads, and by piecing together findings on dusty internet scrolls, reveals fascinating secrets.

Thane Maynard (Director of the Cincinnati Zoo and Botanical Gardens) and his wife Kathleen bought their home in North Avondale, a Cincinnati neighborhood about four years ago. North Avondale is a neighborhood near the zoo known for its functional gaslights. In the mid-1800s it was the place where Cincinnati's movers and shakers moved beyond the smoke and noise of the city and built their Italian Renaissance, English Medieval, Greek Revival, and Bavarian Chalet homes. Prominent businessmen Barney Kroger, Andrew Erkenbrecher, Samuel Pogue, and Frank Herschede – names familiar to older Cincinnatians – all lived here. Today it remains a fine "gaslight" neighborhood with most of these old gems being lovingly cared for.

As I drove up to the Maynards' home, which was designed by renowned Cincinnati architect Carl Strauss and which they have upgraded to a LEED Silver status, it stood out because it was none of the above. Their home is a ranch that would be labeled "mid-century modern," and their nearest neighbors' homes were also clearly built at the same time. Kathleen later said that their home was, indeed, built in 1954.



The Maynard's home

The next thing I noticed as I walked to the back of the house was a greenhouse. Not just a greenhouse but a large Victorian greenhouse. Kathleen told me that it came with the house. Shortly after they bought their home, they found a note scratched by a ghostly hand into the moss on a pane of glass that said: "Victorian greenhouse – do not destroy." While the Maynards did not destroy it, they have not yet found a use for it.

And then I saw the bones of a rock garden. Wow!

I was able to talk to the landscaper (Kyle Horton, Kharma LLC) and got his story firsthand. He has worked for the Maynards for about four years. During that time the hillside and area next to the greenhouse was covered by a scruffy lawn. Several months ago, as he was repairing a few loose stones in the stairs, he discovered that as he cleaned them the wider the stairs became. Continuing to clean them, he came to the rocks that you see on both sides. With his and Kathleen's curiosity aroused they were compelled to continue!



The greenhouse and "Do not destroy" message



The uncovered rock garden.



The steps that led to the discovery of the old rock garden.

But how? Kyle (who, in the movie version of this story, would be played by Harrison Ford) thought of his options. Leaf blowers were not powerful enough and scraping and picking with hand tools would be labor intensive and expensive. And then it came to him! He rented a commercial air compressor with 100' of hose and an air gun and, Voila! a 50-year, six cubic yard (4.6 m³) accumulation of composted leaves, acorns, silt, and lawn was removed by 400 psi compressed air. With one man on the hose and the crew shoveling and hauling, the garden, which measures about 8 feet (2.4 m) from top to bottom by 40 feet (12 m) was exposed in two days. Kyle and Kathleen were giddy with the result and celebrated with a cold beer.

It was clear that this was an old rock garden, carefully constructed from local Ordovician limestone rocks, evidence of the Cincinnati region's past as a shallow sea. But who was its creator? The Maynards knew that the original owner of the home, Robert Senior, had been a prominent member of the 20th century's horticultural community. Hoping to learn more, Thane googled his name and got a revealing hit. On the NARGS website, he found Robert Senior mentioned in an article called "The History of Rock Gardening in North America." From that article:

"Five years before ARGS began (1934), a small group of enthusiastic rock gardeners led by Robert Senior, a Cincinnati businessman, formed the Rock Garden Society of Ohio. The most important requirement for

joining was that the applicant's garden had to be approved of by the members. The society attracted members from all over the United States and Europe. The Alpine Garden Society was started in London later that same year, and The Scottish Rock Garden Club began in 1933."

Excited by what she and Kyle had discovered, Kathleen invited a group of prominent local gardeners, hoping for insight, ideas, and some history. My son, Scott, who works as a horticulturist at the Cincinnati Zoo and Botanical Garden, was included. Given the article on Robert Senior, Scott was immediately intrigued. Knowing that I had time on my hands and an interest in rock gardens and history, he asked me to get involved. He also suggested that this might be a subject for my next NARGS *Quarterly* article. Further, and just as important, my garden is built and sited very similarly, and Scott thought I could contribute expertise (and maybe plants) towards the garden's eventual restoration.

I am good at untangling things such as my wife's jewelry chains or balls of yarn. And don't let me start to help you work a jigsaw puzzle because I can't stop. So, with the garden going to sleep and time on my hands here at Happy Hilltop, I began searching for more information on Robert Senior. One of the gardeners at the gathering had suggested that Scott talk to Grazyna Grauer, a former president of NARGS. Grazyna was able to give us some additional information and suggested that I contact Bobby Ward, Executive Secretary of NARGS. Thanks to Bobby's coaching I found my way through nearly eighty years of quarterly journals all indexed by plant, subject, and author. (This alone made the effort worthwhile.)

There in the author index under Senior, Robert M. were references to forty-five articles he had published in the *Quarterly*, on everything, literally, from *Acantholimon* to *Zinnia*.

In 1969 Robert Senior was given the ARGS Award of Merit which reads:

ROBERT M. SENIOR *Mr. Senior is one of the world's foremost authorities on campanulas. His horticultural interests and energies have centered around them and the other genera included in the Campanulaceae which includes Adenophora and Symphyandra among others. He has grown (in some cases, developed) an estimated 100 species and varieties. His infectious enthusiasm for these plants has led many others to follow him in intelligent search for and research of different and unusual varieties. For this reason, he has been a leader in horticultural circles for more than half a century. In 1916, having built a fine house on Rose Hill Lane, Cincinnati, Mr. Senior, satisfying a natural love of plants, set out to surround this house with a fine garden. He shortly completed what was possibly the first rock garden in southwestern Ohio. His interest in alpines aroused, Mr. Senior pursued it with verve. Often on his way to or from his office, he would stop at the Lloyd Library, one of the largest privately endowed Botanical libraries in the United States. It is here that a large number of Mr. Senior's articles have been filed. His habit of*



Portrait of Robert Senior

stopping at the library for an hour of botanical study persists fifty years later.

In the summer of 1929, Mr. Senior invited about eight or nine ardent gardeners to meet him at lunch. Here those present decided to form the Rock Garden Society of Ohio—the first English speaking society of its kind, and possibly the first Rock Garden Society in the world. He was elected its first President. After the American Rock Garden Society was formed in 1934, the Ohio organization no longer attempted to recruit new members, and many of the Ohio Society joined our American Society.

*Incidentally, when the ARGS was formed, Mr. Senior became a charter member and for many years was a Regional Director. Mr. Senior was also President of the Cincinnati Museum of Natural History for twelve years. Mr. Senior is a graduate of Harvard from which University he received his Master's Degree. He has contributed prodigiously to botanical literature. He recalls with great merriment the detective work involved in helping Mr. H. Clifford Crook straighten out the nomenclature of the campanula family in preparation for the publication of Mr. Crook's book, *Campanula*. His own writings include many concerned with the Campanulaceae and accounts of botanizing in many parts of the West. His articles were published in various horticultural and botanical periodicals, British and American, and were often beautifully illustrated by the author's masterful photography. In quest of campanulas, Mr. and Mrs. Senior enjoyed exploring vacations, often abroad, but primarily in the Rockies where they took many pack trips.*

In his 87th year, Mr. Senior has adjusted his pursuit of gardening to fit a quieter pace. His rock garden is most compact. The X-raying of seed to explore possible chromosome changes is his newest interest. Enthusiasm is the first quality that strikes one on meeting Mr. Senior. Fortunately for all of us he has had the strength and determination to pursue his interests with intelligence and pass on his knowledge with kindness and good humor. That Mr. Senior has been chosen to receive the Award of Merit is an honor he well deserves and one which the American Rock Garden Society is happy to bestow.

What else can I say? I can add that in addition to his service to the rock garden society and the Natural History Museum he was also a member of the Cincinnati Wildflower Society and served on the boards of several philanthropies.

Several statements in the award piqued my curiosity. Where was his home of 1916? Was this his original rock garden? Checking Ancestry.com at our local library, I found that in 1920 Robert, his wife and three children and three live-in servants (obviously botany was not his “day job”) lived at 4201 Rose Hill Avenue which is next door to the Maynards but today that house is a contemporary of the Maynards. Kathleen was able to give me the answer. In 1954, Robert and Fanny, like many 75-year-old couples, decided to down-size and built the Maynards’ home as their own and the others for their children and for sale. Their original home, we assume was razed. I do believe that this was his original garden however and its proximity to the greenhouse is a clue.



Campanula illustrations by Robert Senior.
Copied from The Lloyd Library files with permission



The alpine house then (above) and now (below.)

I noticed two articles in particular “The Alpine House” (Volume 5.100) and “My Alpine House” (Volume 13.112). Of course, an alpine house; that makes perfect sense. The latter article included pictures that show the interior of Maynard’s greenhouse, and it looks just like that today (minus plants, of course). Knowing that Volume 5 dates back to 1947 and that Robert writes that they have had the greenhouse for many years allows us to assume that the greenhouse and garden, which “go together” predated the present home by many years. And, from experience, I can say that Robert would be unwilling to start a new garden at 73. Incidentally, the greenhouse, while not destroyed, has suffered from years of neglect. Most of the glass is intact, and the wooden parts (cypress) are rot-free but the glazing is in bad shape, and most metal parts are very rusty. Still, after reading “My Alpine House” one can picture Robert and Fanny fussing over their miniature wintertime rock garden. The award states that the garden was made smaller. If so, I would hate to think of the original.

Robert was passionate about all things campanula and became an authority on the genus. In Volume 8.59, he discusses hybrid campanulas and mentions one that he developed and named ‘Fanny Senior’. When my son and I visited the Lloyd Library there for sale in the gift shop were framed reproductions of pen and ink drawings of campanulas made by Robert.

Mr. Senior died in 1973 at 92, and his home and garden passed to his son, Edward, who, unfortunately, spent half the year in France. Leaves fell, and year by year by year the garden was buried like a latter day Pompeii.

So now Kathleen Maynard, the heir to this garden, greenhouse, and its rich and fascinating history, is left wondering what to do with it. While she loves and respects this legacy, how does a busy, 21st century woman, whose main gardening interest is native plants, balance time, money, passion, and legacy? How does this get passed on? Well, isn’t this the next chapter?

In the meantime, maybe this is a reminder to keep gardening history alive—to respect it, protect it, fund it when we can, and, most of all, to leave breadcrumbs for future generations regarding our efforts. Write down the story of your garden. Describe the plants and why they matter. Take pictures and print them and leave these records in a closet or in the attic to be discovered by new owners over and over again. The more people know about, understand, and respect the legacy of those who have made the world more beautiful before us, who have carried horticulture forward, the more likely their work will carry on. By the way, does anyone know where Kathleen can find a campanula named ‘Fanny Senior’?

The Perfect Stone

LORI CHIPS

Editors note: This article grew out of Lori's work on her upcoming book Hypertufa Containers: Creating and Planting an Alpine Trough Garden coming out from Timber Press August 1st.

MOST TROUGHS INCLUDE stone as an element of the miniature landscape. Sometimes it is a single stone that will inspire a whole design. Stone can be the most dramatic feature or an impeccable supporting player. Knowing what stone to look for and why simplifies the process. Here are some thoughts to help in the quest.

Rocks and the Gardener

Every rock gardener I have ever met has a complicated relationship with stone. The majority have at the very least a well-developed appreciation for its inherent beauty and most, from experience, have a healthy respect for the sheer strength it takes to move a piece of it. I always sense a fundamental challenge there, buried deep in the rock daring me to make use of it. The bigger the rock is, the bigger the challenge. There are good reasons why rocks are usually an integral part of a trough design. The roots of alpines love to live in the company of stone. Be it a deep rock outcrop, fist-sized chunks or smaller gravel, the plants tend to thrive. The rocks offer a cool root-run, a place where rain will channel down. Stone slows temperature changes and helps prevent frost heaving. But I think it is in the aesthetic realm that a beautiful piece of stone makes its strongest case. Nothing partners with small plants in a container quite so dramatically and so well.

It has been quite sanely argued that it is possible to grow outstanding alpines without stone of any kind. A quick and envious glance at the show benches in the U.K. loaded down with potted beauties will confirm this. But the use of stone is an aesthetic choice besides a cultural one. We in New England have come to terms with the rocks we cannot get rid of anyway. New England's tilth is the soil that grows rocks. That's why since colonial times we have been forever building stone walls. Not always was it a need for a wall, I think, what we wanted was clear land. There are plenty of other locales with their signature rocks; I have swooned at the red-orange rocks of Utah spangled with various colored lichen. My table and mantle are adorned with gorgeous chunks of petrified wood, mesa-like specimens from Colorado and the Dakotas, prized pieces from the Cascade Range in

the Pacific Northwest, many carried down a mountain in the backpack of my resigned but accommodating husband, who often, by the time we reached the base, was dragging his pack behind him.

A Personal Relationship with Stone

Even before alpinism and troughs pulled me into orbit, the practice of meditating on the beauty of any given stone was not new to me. I come from a

family entranced by stone. At our family homestead, my father and grandfather built two monolithic walls from stone collected from our property. These walls formed the imposing front of our Frank Lloyd Wright-styled house. They also built an enormous two-storied fireplace, the bottom level hearth aproned out with irregular field stones that were met perfectly by a templated wood floor looking like a tide line at the beach. My Lithuanian grandfather started his days by tramping the land and pulling stone for my artist father to approve. Although he did not share Dad's taste for craggy, lichen, weathered rock, he gathered it. I remember conferences between the two of them before my father had to make the train for his job on Madison Avenue. They talked sizes, width, shapes, for the ideal stones for that week's level in the wall. These pieces were almost never broken or chiseled. It was some kind of commandment; stone should come from nature, not be tampered with. Sometimes the wall grew incredibly slowly one row at a time. At others, it might leap several feet upwards. Once, painfully, several feet had to be deconstructed. The culprit was a stone smack in the center, too pale, too regular in shape, too squared off. It stood out like a sore thumb and troubled my father for days. It had to go. Given the sheer labor it entailed, this was an incredibly difficult decision to make. They were working on a scaffold with ramps and pure old-fashioned elbow grease. I remember that as the kind of week to avoid at all costs, but out the rock came, and the rebuilding began. We as a family celebrated the completion of those walls. They were very beautiful. I took a double exposure photograph of my father against it.



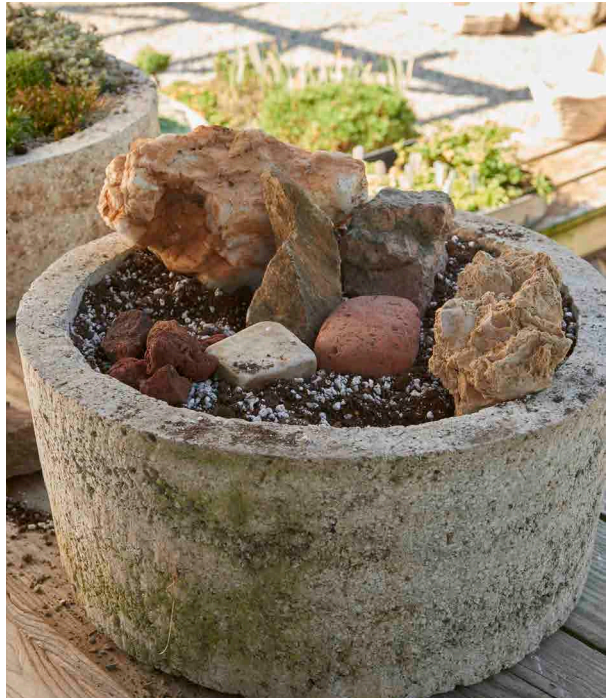
I love stones spangled with lichen.
All photos by Jeff McNamara unless noted.

Different Kinds of Stone

Lucky for me the pieces of stone I wrangle are generally a lot smaller. They have to be to grace the inside of the troughs I work with. I have a couple of prejudices I freely admit to and share with anyone coming to me for ideas. Do not haphazardly collect chunks of your favorite minerals and try to gang them together in one schizophrenic landscape. A piece of pink quartz, a lump of tufa, a few slivers of slate, a craggy hunk of granite and

some polished beach stones will argue together, aesthetically speaking, till the end of time. Confine yourself to one sort of rock in one container at a time. And always try to find gravel mulch that mimics the stone you use for harmony and believability. This does not mean that once you finish one trough with certain elements you are constrained to abide by that from then on. Part of the beauty of trough gardening is that we can be inspired anew each time we approach a new container. If the first trough has gray weathered material, you can decide to use dark obsidian tones next time. A trough featuring terra cotta-colored stone and planted solely with silver plants is a revelation.

Look for angular rocks. They are infinitely more inspiring to design with. A collection of them can mimic a natural outcrop, a bluff, a mesa, or a gorge. Baby plants can be sandwiched between the flat sides of angular pieces; their roots will love the cool environment of the buried stone, and the plants will thrive. Whenever I travel or even hike locally, I always have a little part of my mind tuned in for the next handsome stone I might find, the one that will form a gorgeous backbone in a container, that will become a ledge or focal point, the more architectural the better.



Combining many different stones in one container creates aesthetic chaos.

There is one big proviso I would be remiss not to mention. One cannot collect stones with impunity just anywhere. In state and national parks, it is strictly forbidden. If you happen to be on someone else's land, you must obtain permission. Some rocks are even the equivalent of "endangered." The stones in the Petrified Forest National Park in Arizona qualify. I suffered agonies of acquisitiveness during my visit there. The Park officials grill you on the way out in case you pocketed a gem or two. I knew better. But we pulled into the next rock shop we passed after leaving. Then too, not all rocks are hardy. Some beautiful sedimentary orange ones we brought home from the southwest picturesquely crumbled to gravel in our wet and frozen climate. It was charming to watch this process but soon, in a season or two, even the gravel was gone.

Stone Mulch

No matter if you call it gravel or grit, as long as it's made of stone, adding a mulch of it to the surface of your trough is unquestionably a good idea. Aesthetically it completes the project, makes it look polished, but it goes beyond that. These little mountain plants come from a habitat of stony soil. As with any mulch, gravel will protect the soil

from drying out. I can't claim that it will "Hold down weeds," a phrase often proffered about bark mulches. Seeds love to germinate in gravel. But on the positive side, things seeded into gravel are very easy to pull out. The stony surface will also keep the soil cooler, hugely important to alpine plants. Stone mulch tucked carefully under the cushions keeps the foliage from being in direct contact with the soil. The crown of the plant, the point at which the root and shoot join, is usually the most vulnerable part of an alpine. A collar of gravel is added insurance.



When the colors of foliage and stone complement each other, the result is magic.

The pH of Stone

I decided to check with an expert on pH in the person of my scientist brother. He said: "The idea of pH inside a rock is not really a viable construct if there is not much water present." He went on to explain "The pH value of rock is how it affects water that dissolves a portion of it or has an ion exchange reaction with it." So what I understand from this is the effect on plants from various minerals comes about through their becoming dissolved in the water that is then available for uptake by plant roots. This can, of course, mean large chunks of rock used architecturally, or small gravel used as a soil additive or mulch. Here are some common kinds of rock grouped by their reaction.

Acidic: Granite, granite gneiss, some shales, and slates. Some volcanic rocks that have a high aluminum content will have an acidic reaction in soils.

Basic (alkaline): Limestone, marble, dolomite, calcareous sandstone and shale. Also, mafic igneous and metamorphic rocks that contain high amounts of alkaline metals. (Examples of alkaline metals are calcium, manganese, and potassium.)

Lime in masonry of all kinds leaches into soil and raises the pH. (By the way, the high pH of genuine tufa is warned against in aquariums for just this reason.)

Neutral: Quartz has no reaction.

There are many gravel sizes out there. This is a choice, but if you use one much bigger than ¼ inch (6 mm) it may begin to ruin the scale of the design. Conversely, extremely fine particles like sand can hold wetness, just what you want to avoid. Avoid Turface® as a mulch. It can be a good additive to a soil mix if done with a light hand, but at the crown of the plants it will hold water just where you don't want it. For some of the more difficult cushions you might try mulching by placing flat thin flakes of stone under the skirts of the dome, up to but not touching the stem. This can help cushion plants to sail through the harder times of the year when humidity or rain or slush can hurt them. It is not a trick that can cure every climate woe, but it is another tool to wield.

Remember that rock is either acid, neutral, or alkaline, so choose accordingly for the plants you have selected. Generally, neutral is a safe bet. Some examples of subjects that prefer an alkaline reaction are dianthus and gypsophila. Acid lovers are members of the ericaceae. A few examples are *Calluna*, *Cassiope*, and *Rhododendron* species, as well as many conifers.



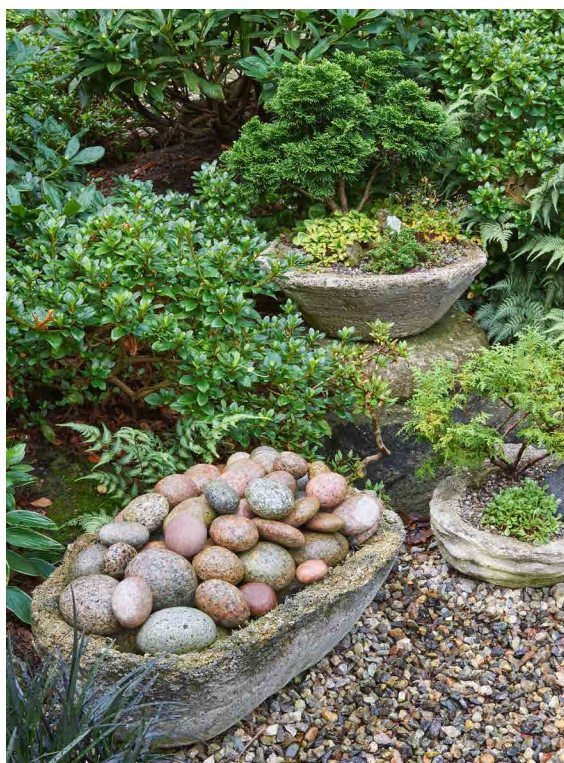
Group stones together to form a dramatic focal point.

On a purely aesthetic level, think about the color of your mulch. The gravel mulch is the canvas, the common denominator, even the referee of your plants. Alpine species tend to have fairly clean unmuddied colors. But even so, flamingo pink and egg yolk yellow are hard to marry comfortably. The gravel you choose can help; it performs as a mediator between the plants. Think of what plain green or that swath of silver-gray does to mellow a color combination in a flower border. Choose gravel that plays well with the rocks you plan to use as elements in your little landscape and choose gravel with various tones mixed in, such as browns, tans, and several grays. Gravel of all one color looks flat and is reminiscent of the traprock used in roadways. It should look natural, like random pebbles you see on a path. Right here I will make a value judgment. Never use blinding white quartz no matter what you plan to combine it with, or where you live. Except, maybe, Crete. In which case, I am sure I can free up some time to come over to help....

How Much Stone to Use

Students are often startled by the quantity of stone I will sometimes puzzle-piece together in a single container. I do realize that this makes for a heavier trough. I just plan to move it around less. There is something epic that begins to happen to a container once a massif is formed. Even the way the plants are added, and how they read undergoes an aesthetic shift, an interesting one, one truer to nature as we find it in the mountains. When working in this way the stones become the focal point of the trough.

You may have a soft spot for alluring beach stones. So do I. I cannot count how many pounds of these I have emptied out of sandy pockets in my lifetime. I love their shapes and colors, the smoothness they have after tumbling endlessly in the surf. Sadly, they are not the easiest to use in a trough garden. One does not find a lot of round rocks on mountaintops.



Beach stones are best displayed on their own rather than with plants.

You could try a Zen design might with beach stones; I can imagine a lone wind-tortured shrub, some mosses and an array of carefully graduated stones either by color or size or both. But this is a different discipline closer to bonsai. Attempting to design an alpine landscape with round polished stones has proved problematic, especially since alpine cushions and their flowers look so perfectly at home when tucked up against a craggy rock. So, in general, opt for the angular every time and put your beloved beach stones in a beautiful bowl inside (or outside) the house.

When placing these more structured stones examine each one. Most irregular rock has some stratification, in placing several together be consistent with these angles. To create a believable outcrop, you must obey this geologic reality, uptilt them with the strata all going in the same direction. There seem to be people with an aptitude for breaking these particular rules and having it work anyway. It seems to be a talent one is born with. But if you, like me, are not one of these lucky ones grant yourself a more assured success. Study your stones before placing them and obey their lines.



If stones show striations, line them up to create a natural looking outcrop.

The Perfect Stone

As I write this at my dining room table, I am surrounded by rocks. I thought they would be good inspiration. There are a couple on the chair next to me, a nice collection on the table, the windowsill holds more. Not every one of them is beautiful, but all captured me enough to bring them inside for second looks. As I collected them to bring in, I realized that I am always looking for the perfect stone. Some cultures believe that spirits reside in stone. As I cradle one in my hand, I find that is not hard to understand.

In the final analysis did I find the perfect stone? Yes. And no. There are stones perfect for their spot in the garden or trough, soulful chunks in the landscape that I regularly visit, even perfect stepping stones. The perfect stone is the one I have in my hand right now. But it is not that simple. It is also the very next stone I covet whether I see it in a stone yard, at the edge of the path underfoot or the one I slip into a backpack to lug down several thousand feet. One of those lives on the mantle, cheek by jowl with another cherished one from the family homestead not that far away from where I live now. To make the matter even more complex, there are gorgeous stones in landscapes, even in walls and jetties no one would think of disturbing or moving. Therefore the motive of possessiveness is not it either.

The perfect stone, it turns out, is only perfect if it fulfills the reason you want it. A hearthstone or lintel are different creatures compared to the stone inside a terrarium. A mason's perfect stone and that of a mineral collector or a bonsai artist will all differ mightily. Stones are strong, nearly permanent, and beautiful. What they offer sometimes needs to be unlocked by working with them. And we are by no means the only animals drawn to them. The perfect stone for our very discriminating cat is the smooth, comfortable one on our driveway bench, with a concave spot that is perfectly sun-warmed, cradling her perfect face. Queenie is a cat who knows a lot about perfection. And I wouldn't dream of arguing with her.



Queenie the cat with her personal perfect stone.

Notocactus: Gems in a Historical Genus

MIKE PAPAY

IN THE EARLY days of cactus taxonomy few cacti were yet discovered, precious little was known about them, and there were just a few described genera in which to place any newly discovered species. Thus many species were at first placed in the genus *Echinocactus* established by Link & Otto in 1827. (Link & Otto, 1827, *Echinocactus*, Negotiations of the Association for promotion of Horticulture in the Royal Prussian States, Volume 3: 420-432). As more plants were discovered and more was learned about them, here and there species were gathered into groups. Sometimes the taxonomists proceeded with caution and created subgenera within *Echinocactus*. Eventually, these subgenera were given status as genera in their own right. This was the path for *Notocactus*, made a subgenus in 1898 by Karl Moritz Schumann, (Karl Moritz Schumann, 1898, *Gesamtbeschreibung der Kakteen*, p.379) then raised to genus by Alberto Vojtěch Frič in 1928. (Tony Mace, 1975, *Notocactus*) By recent taxonomic treatment, the notocacti are to be placed in the genus *Parodia*. However, you will find many nurseries still recognize *Notocactus*, which in fact will save you a good bit of trouble. For truth be told, the notocacti are almost embarrassingly easy to grow whereas the other species of *Parodia* are difficult at best, even in a greenhouse.

The notocacti are native to southern South America, essentially Rio Grande du Sol, Brazil, Uruguay, and Argentina. The hardier types (10°F, -12°C) occur in southern Uruguay, and in the Argentine provinces of Córdoba and San Luis.

In his 1975 book, *Notocactus* Tony Mace provided information about the usual climate and soil conditions for the notocacti, which goes a long way to explain their ease of culture. He observed that notocacti prefer an acidic or at most neutral soil (pH 5 to 7) and occur in places where “the average rainfall is quite high, between 20 and 40 inches per annum, and there is usually only a very short dry season.” This is not too different from the Piedmont and Triassic Basin of North Carolina. Tony Mace also reported that the notocacti “are found growing... frequently on well-drained rocky outcrops,” either in cracks where soil had accumulated or in shallow soil upon the rock. Given at least 4 hours of full sun, a more or less south-facing exposure, and good garden soil that does not hang wet, I have found the following Notocacti to be a lead pipe cinch.

I present to you a few cold hardy (10F, -12C) species of the historical genus *Notocactus*.

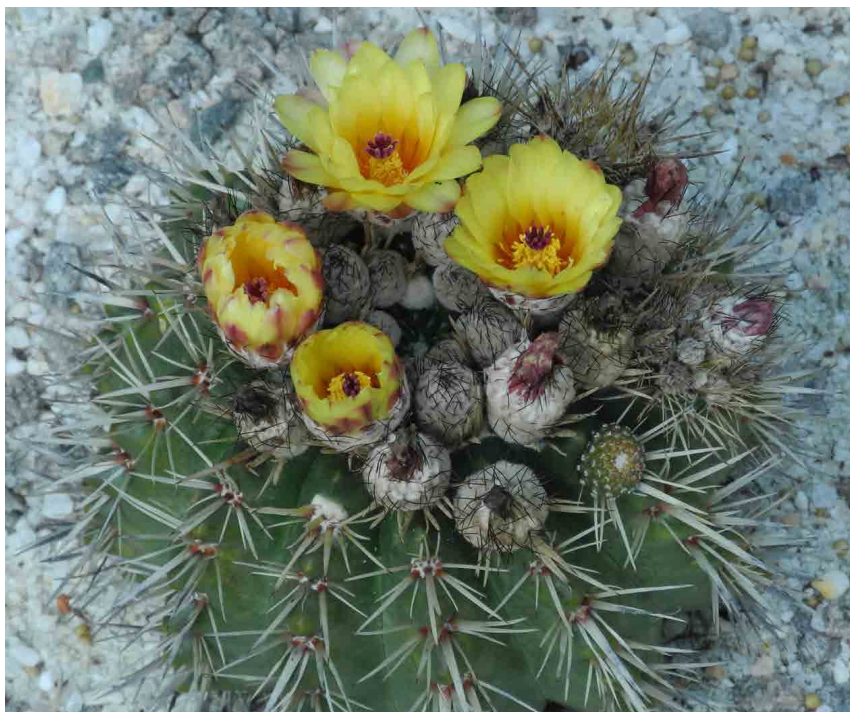


Notocactus concinnus

Notocactus concinnus (synonym: *N. apricus*): This is the hardiest and smallest species from this historical genus, and was first described by Charles Lemaire from a plant in the personal garden, le Desert de Retz, of Monsieur Monville, who resided just west of Paris, France. (Charles Antoine Lemmaire, 1839, *L'Horticulteur Universel* 1:222) Of course, no cactus is native to France. Lemmaire reported that Monville's specimen originated from Montevideo, Uruguay. Field collection number HU295 probably represents a recollection from the type habitat of *Notocactus concinnus* at Punta Ballena, Uruguay. (Mace, Tony, 1975, *Notocactus*) My plant was a kind gift from Tony Avent of Plant Delights Nursery. The spines of *Notocactus concinnus* are very nearly friendly. Each biscuit-shaped (an American biscuit not an English biscuit – as good as they both are) plant may reach about 3 inches (7.6 cm) in diameter. This species is self-fertile, and in a happy position in the landscape, it will surround itself with seedlings, giving the appearance that it makes prolific offsets. Tony Avent has grown many dozens of seedlings from his *Notocactus concinnus*. Hopefully, these are offered for sale in 2018.

Notocactus submammulosus: This is a larger plant (up to 5-inch, 12 cm diameter) with thick, sharp white spines. The healthiest, hardiest, largest, and most attractive form of this species I have had the pleasure to grow is David J. Ferguson's seed collection DJF276 from La Paz, Córdoba, Argentina. It seems as hardy as a rock and was unharmed at 7°F (-14°C). Unlike other plants of its species, form DJF276 often repeat blooms and sets seeds in the autumn. The autumn blossoms do not detract from the spring bloom when its top is covered in buds and a succession of yellow flowers. The seed crop has always been very good, and since I started with just the one plant, that is a sure sign of it being self-fertile. Not surprisingly, therefore, the seedlings look every bit as good as the parent. I have seedlings of another collection by Mr. Ferguson from Argentina near Achaes, Córdoba (DJF235), and another collection from Sierra Lihuel Calel (Mesa Garden 1079.21). Thank you, Mr. Ferguson, and Mr. Steve Brack (now retired from Mesa Garden) for making these available.

Notocactus sellowii: Many a cactologist has fallen under the spell of *Notocactus sellowii*. Friedrich Sellow, a Prussian from Potsdam, was this plant's original European discoverer. He collected it whilst exploring the natural history of southern Brazil, Uruguay, and



Notocactus submammulosus



Notocactus sellowii

Argentina from 1814-1831 (Kraush, H.D., 2002, *Friedrich Sello, ein vessenger Pflansammier aus Postdam. Zandera* 17(2): 73-76). Sellow sent his collections back to Prussia (now Germany), where his friends Johann Heinrich Friedrich Link and Christoph Friedrich Otto analyzed them. In 1827 Link & Otto published several new cactus species collected by Sellow, and named the most handsome of them for him, calling it *Echinocactus sellowii* (Link & Otto, 1827, *Echinocactus sellowii, Negotiations of the Association for promotion of Horticulture in the Royal Prussian States, Volume 3: 425 & Tab. XXII*). Link & Otto provided a true-to-life illustration of this cactus, firmly establishing its identity. Sellow did not have long to enjoy the distinction of a cactus bearing his name. Tragically, in October 1831, at age 42, Sellow drowned in Argentina's Rio Dulce (Kraush, H.D., 2002, *Friedrich Sello, ein vessenger Pflansammier aus Postdam. Zandera* 17(2): 73-76). All those years ago, Argentina's Santiago del Estero had no bridge over the Rio Dulce for a traveler's safe crossing. Misfortune – and a river named for its sweet water – took Sellow's life.

Notocactus sellowii forms 8-inch (20-cm) wide, flat-topped plants that remain flat-topped in old age. 10°F (-12°C) is about its limit to short periods of winter cold. It occurs from Rio Grande du Sol, Brazil thence south through Uruguay to its southern coast near Piriápolis, Maldonado, and along the scenic vistas of Punta Ballena. Perhaps testimony to its attractive form, *Notocactus sellowii* has many synonyms: *N. corynoides*; *N. courantii*; *N. curtinensis*; *N. erinaceus*; *N. leprosorium*; *N. leucocarpus*; *N. macrocanthus*; *N. macrogonus*; *N. orthacanthus*; *N. pauciareolatus*; *N. paucicostata*; *N. rubricostatus*; *N. stegmannii*; *N. tephraacanthus*; and *N. vorwerkianus*.

You may not be the first person to fall under the spell of the notocacti. Nor shall you be the last.

Hardy in Denver

BOB NOLD

I KNOW A LOT of people make fun of the idea that plants that turn to mush in much warmer winters elsewhere can be hardy in Denver. I suspect this disbelief has its origins in entirely different experiences of winter, and maybe this semi-scientific explanation will show that our experience of winter is radically different from most other cold-winter climates.

It definitely does get cold in Denver. There is no east-west mountain range to block Arctic air from flowing southward directly toward my backyard; even distances of thousands of miles do not seem to help warm the air up much.

The coldest I've ever seen here is -27°F (-33°C). The night it got that cold I walked out into the garden, trying not to breathe much, to see what it was like. It was cold. When I brushed against some pine needles, they shattered like glass.

If you have an image of winter gardens covered in a blanket of snow, this is not an image that comes from Denver. Or if it does, it was the day before the sun came out and evaporated most of the snow. Every now and then we do have winters where the snow lingers for days or weeks on end, but those winters are rare enough that I can still maintain my sanity. The average precipitation in Denver in December and January is just half an inch each month.

Unlike "back east," where, when I visited in winter, the sun was said to be somewhere in "that hazy area over there," Denver's sun is always there, blindingly bright, and warm even on days when the temperature is well below freezing. Snow lying on the ground sublimates, evaporating directly into the cold, dry air. Of course, a little bit melts and trickles down into my paths, making me wish I had made them out of something other than plain dirt. But most of the little bit of snow we do get leaves without wetting the soil at all.

It never rains in the winter here. Okay, every now and then a little bit of rain falls, so I can say that it rains in Denver in the winter as much as it snows in Malibu in the winter. (No one ever moves to Malibu to be closer to the slopes.)



Yucca rostrata thriving at Denver Botanic Gardens despite being only barely hardy in much warmer climates elsewhere.

Think about this for a minute. Something like the entire regional flora has adapted to winters during which rain never falls. The soil is either dry, under snow, or frozen. It's true that some native species need snow cover either to prevent excessive transpiration or to endure cold temperatures (*Ceanothus velutinus* won't last a winter here without the deep snow cover it finds in the mountains); those are exceptions that prove the rule.

I've never seen an ice storm, or sleet, or rain falling on top of snow.

Let me see if I can show the radical differences in winter climates by dragging you into my backyard. Today is the 18th of January. It's 64 degrees outside (17.7°C), and 9% humidity; fairly typical winter weather. There's a little bit of snow on the ground here; the soil is frozen in much of the garden.

Almost the first thing you'll see, if you look where I'm pointing (and yes, I know this isn't really a rock garden, just a pile of dirt with some rocks stuck in it), is a fairly large colony of agaves (*Agave parryi*) growing in heavy clay soil with a bunch of *Echinocereus* and pupping like crazy. They've been growing there for a quarter of a century. I also know that growing agaves in clay isn't the brightest idea in the world, because agaves prefer a more porous soil to allow late-summer rain to penetrate, so that they can grow bigger and bigger, but I can just blame the garden help for planting the agaves there.

Agave parryi is a mesophyte (definitely not a "xeric plant") dependent, as I said, on relatively heavy late-summer rainfall, and which, anecdotally anyway, rots in winter-wet soils at much higher temperatures than the bone-chilling temperatures it experiences in my garden, with or without snow cover.

As Park S. Nobel suggests in *Environmental Biology of Agaves and Cacti*, "For *O[puntia] humifusa*, the lowest mortality due to low temperatures occurs at the driest sites, possibly because of the high tissue solutes under the more xeric conditions.... The lower tissue water content may lead to less water that can freeze extracellularly and therefore less ice that could damage the cells as the ice crystals eventually become large enough to disrupt the plasmalemmas." If low soil water content equates to a higher concentration of cryoprotective sugars (the "antifreeze"), as Nobel suggested, and increased hardiness, then it seems likely that a higher soil water content would dilute the sugars to the point where the agaves become much less hardy than they are naturally.

So "hardy in Denver but not hardy for you" is a real thing. Sorry. Of course, I am deliberately ignoring the hundreds of plants which everyone else can grow but fry to a crisp in a dry Denver winter, just to look good. That is what gardening is all about, isn't it?



Is That a Conifer in My Rock Garden or a Rock in My Conifer Garden?

SARA MALONE

A rock garden, also known as a rockery or an alpine garden, is a small field or plot of ground designed to feature and emphasize a variety of rocks, stones, and boulders. Wikipedia

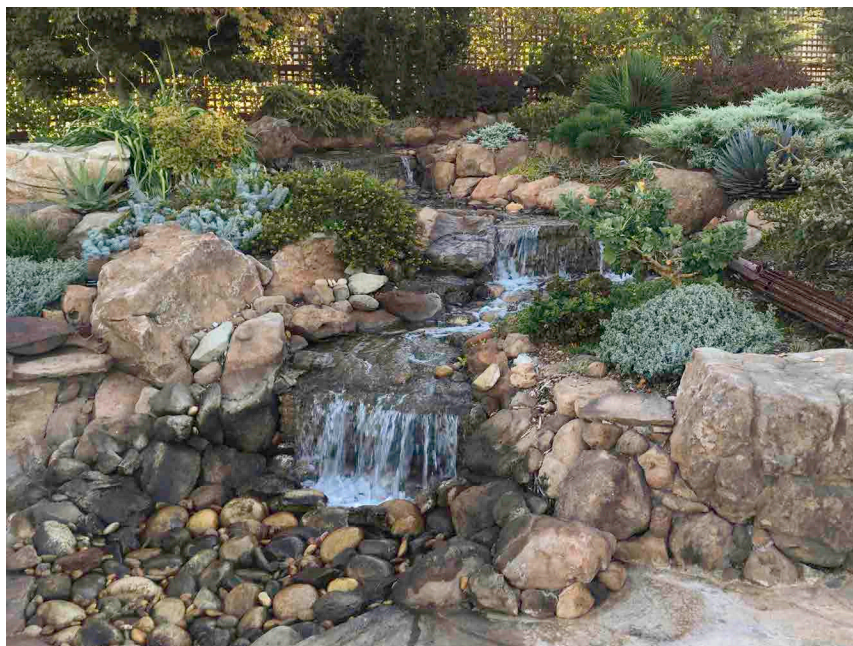
NARGS is for gardening enthusiasts interested in alpine, saxatile, and low-growing perennials. Website, North American Rock Garden Society

GARDENING—OR HORTICULTURE if we want to be tonier—is an applied science and lends itself to imprecise terminology. Add to that the fact that most of its practitioners are hobbyists and self-taught, then cap it off with regional differences, and it is not surprising that definition and even translation is sometimes required for successful communication. The question “what is a rock garden?” is one that produces different definitions depending on who answers your query. I hadn’t even considered this question until the rocks in my garden took on a life of their own and forced me to take them nearly as seriously as I had the plants!

I am a self-confessed conehead, a term that conifer lovers use to describe their affliction. But it wasn’t always thus; I am a reformed perennialista who wearied of the maintenance, lack of structure and long off-season that are the unsavory attributes of those pretty perennial faces. I found a lasting romance in the bold structure, year-round interest and low-maintenance of dwarf and miniature conifers. Today my garden is about 50 percent conifers, with the remainder companion plantings of interesting woody plants and large succulents.

As part of my desire to reduce the maintenance in my large garden and create a landscape with year-round appeal, I began to add rocks to my plantings. A large boulder here, a group of smaller rocks there and before long I was a huge fan of rocks in gardens. Why not? No watering or fertilizing necessary, no chance of them dying or even sickening, and they will never outgrow their spaces. I also came to appreciate how the use of rocks could help create a vignette using smaller plants than I might have thought to use singly. In a large garden, it can be difficult to

Opposite: Conifers and rocks in the author’s garden.



The installation of a waterfall turned this conifer lover into a rock gardener.

use the smaller conifers, those classed as miniatures. A miniature, by the definition of the American Conifer Society, is one that grows less than one inch (2.5 cm) per year and is under a foot (30 cm) tall after ten years. There are some fabulous miniature cultivars that I had ignored because I thought that they would simply get lost in my vast landscape.

I had my first taste of rock gardening when we put in a small waterfall on our stone patio. I was charmed and delighted by how much fun it was to plant along the rocks making up the channel and how well the rocks showcased the plants. The waterfall builder (a stone artisan named Dan), on the other hand, was impressed at how well the plants showcased the rocks!

So I added more rocks to the garden, and was pleased with the interest they created and the additional plant choices they allowed. I realized that I was going about it backward: I needed to put the rocks in first and then add plants appropriately. So, I chose a site on the edge of the garden that was big enough to create a harmonious collection of rocks, in fact, a rock garden. I wanted it to slope slightly for drainage and also to face south so that I could do a bit of zone-pushing (I'm USDA 9b; we sometimes have mild freezes). Once I selected the site, we yanked out the uninteresting plants and transplanted the desirable ones to other spots.

As I was working on this plan, my husband and I both had milestone birthdays and a milestone anniversary. When he asked me what I wanted as a gift to celebrate, I responded without hesitation: “Big rocks.” He gulped, and I explained that we were taking a trip not to Tiffany, but to the landscape materials yard. However, I still wasn’t sure what I wanted this rock garden to look like, so wasn’t sure what kind of rocks to buy, or how many.



Big rocks are a girl’s best friend.

I googled “rock garden” and learned that most rock gardens showcase alpine plants. That stopped me for a bit, as many alpine plants would not thrive in my Sonoma County, California, location and were not (yet!) part of my plant palette. Alpines are adapted to growing in harsh conditions, with cold, dryness, and a short growing season. They also grow in an environment that does not support trees, so woody plants are not naturally selected as rock garden denizens. This meant that I could not easily look to photos of typical rock gardens to give me ideas of what to plant or how to arrange the rocks. I had Dan lined up to create the garden, but I didn’t know what I wanted it to look like.

The adjective “alpine” kept rattling around in my head, and I realized that while in its narrowest sense, it referred to high mountain regions and the endemic plants and animals, “high” isn’t necessarily defined as above the tree line. I also knew that many conifers are native to mountainous regions and that conifers and rocks seemed to complement each other naturally. So, for inspiration, I drew on



Rock placement inspired by the Sierra Nevada mountains.

my impressions and recollections of the trips that I had taken to view conifers in the mountains of California. Relative to many of the more traditional alpine gardens, this meant larger rocks, but I learned that often the best rocks to use were those that were close at hand, due to ease of transportation and the aesthetic advantage of using native material. I also learned that angular rocks were easier to place than round ones and that rocks with interesting crevices and hollows, or decorated with lichen or moss, were desirable. This gave me enough focus so that Dan could start choosing rocks, in this case, Sonoma

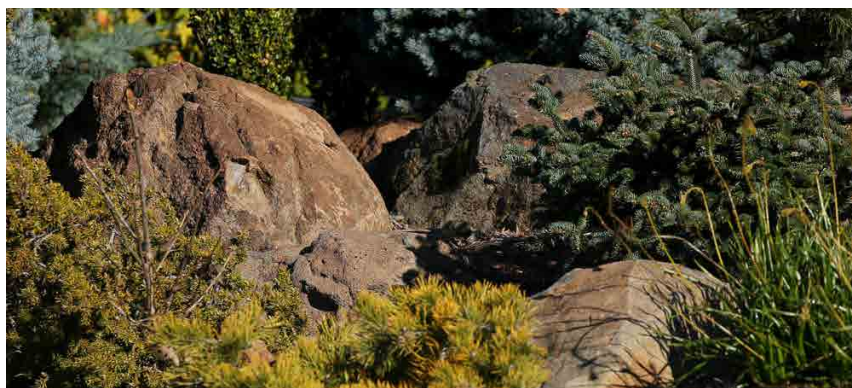
fieldstone, and we eventually ended up with about 25 tons. Dan was also a veteran hiker, and when I suggested that he arrange the rocks to resemble the landscape in the high Sierra Nevada, he went to work and laid out the bones of the garden.

Then came the fun part for me: planting the rocks! I focused primarily on conifers, bromeliads, cacti, succulents, and Australians, as these all grow well in my zone and from this group I can get a wide variety of forms, textures, and structures. I loved placing the smaller conifers and their companions in niches and pockets, allowing some to occupy places of importance atop a mound and tucking others into crevices that protected them from wind and frost. And strangely (or maybe not), many of the succulents that I selected mimic the growth habits of some of the alpines, growing low to the ground and trailing over rocks.



The new rock garden is full of spaces for treasured conifers and other plants.

It's been a little over a year since I began rock gardening, and since the rocks are mature the day they hit the garden, I discovered another wonderful aspect to this addiction: the rocks temper that just planted look that new beds tend to wear. Yes, the initial planting was sparser than it would be in a few years, but the garden had a completeness that most new beds do not have. My rock garden looks attractive, it doesn't appear incomplete in any way, but many nooks and pockets still await choice miniature conifers that I can now buy with impunity, knowing that I'll have the perfect place to showcase them. Oh, and by the way, I also joined NARGS! If you want to learn more about dwarf conifers, consider joining the American Conifer Society, www.conifersociety.org.





Where Alpines Meet the Sea
NARGS Annual General Meeting 2018
Newfoundland Chapter, St. John's, July 6-8, 2018

The Newfoundland Chapter of the North American Rock Garden Society will be hosting the Annual Meeting in 2018. Registration includes outstanding speakers and field trip hikes through the rich botanical diversity of Newfoundland.

Please refer to the Winter 2018 edition of *The Rock Garden Quarterly* or the NARGS website for details about this meeting. You may fill out the registration form and mail it in if you do not have access to the internet. However, if possible, we encourage you to register by the online system at <http://bit.ly/2n8f834> where you can pay via credit card. The link is also on the NARGS website.

For any questions contact Todd Boland at todd.boland@warp.nfld.net

Registration Form

We would prefer that you register through the Memorial University Conference Services website but if you do not have computer access, please fill out this form, and send with a check payable to "Newfoundland Rock Garden Society."

Mail to: Bodil Larsen, 141 Lower Road
Outer Cove, NL, Canada A1K 4B7

You need to be a NARGS member to register (though you can join on this form or online if you are registering online). If more than one member of a household is registering for the meeting, please complete a registration form for each person.

Name: _____
Mailing Address: _____
City: _____ Prov./State: _____ Postal/Zip code: _____
Country: _____
Email: _____
Phone: (_____) _____
Friday Banquet: Chicken ___ Salmon ___ Vegetarian ___
Sunday Banquet: Pork ___ Cod ___ Vegetarian ___
Other special dietary requirements: _____

REGISTRATION: Please check if payments are in US dollars ___ or Canadian ___
Registration Fee: USD\$415 or CAN\$495 _____
One-year NARGS membership fee (if not a member):
USD\$40 if resident in North America; USD\$45 if overseas: _____

AVAILABLE: Heather-gray, short-sleeved T-shirt with Conference logo as a chest crest: USD\$16 CAN\$20

If you wish to purchase a conference T-shirt, please tick your size and quantity below.

SM ___ M ___ L ___ XL _____

Overall total payment enclosed: _____

Hiking Options: circle one for each day
Saturday, July 7 Tour 1 Tour 2 Tour 3

Sunday, July 8 Tour 1 Tour 2 Tour 3

NOTE: Sorry, refunds after May 1 only in extraordinary circumstances.



Bulletin Board

winter
2017/2018

volume 76 | 1

President's Letter

Just a brief note of thanks to the very best members of an organization I love.

I know I speak for the Board of Directors when I say that your donations of over \$30,000 last year helped to sustain ourselves another year. We still didn't end in the black but we are closer to streamlining our activities. Our restrictions, although painful, have enabled us to expand other programs and stay afloat. We are very busy. NARGS never sleeps. Trying to line up Annual General Meetings and Study Weekends, trips and speakers is a BIG job.

We are grateful and love getting the positive letters and notes from all of you. But our biggest concern is to attract new members. Please bring a new person with you to your chapter meetings. And those of you in a position to chair a chapter, be sure to encourage NARGS membership.

The pages devoted to NARGS in many of our chapters' newsletters are awesome. The following chapters do a phenomenal job of pushing membership: Great Lakes, Manhattan, Minnesota, New England, Nova Scotia, Potomac Valley, Piedmont, Rocky Mountain, and Sierra.

And a big "thank you" to those chapters who contributed to the Rocky Mountain Chapter Matching Fund Challenge during 2017: Adirondack, Alaska, Berkshire, New England, Great Lakes, Hudson Valley, Manhattan, Mason-Dixon, Minnesota, Nova Scotia, Piedmont, Potomac Valley, Sierra, Siskiyou, Wasatch, Watnong, and Wisconsin-Illinois.

Spring is coming.

Betty Anne Spar

Upcoming NARGS Meetings for your Calendar

NARGS Annual Meeting and Board Meeting

"Where Alpines Meet the Sea"

Hosted by Newfoundland Chapter

July 6 – 8, 2018

Contact: Todd Boland (todd.boland@warp.nfld.net)

NARGS Study Weekend

"Rooted in Diversity"

Hosted by Delaware Valley Chapter

May 3 – 5, 2019 (that's right: 2019)

Philadelphia area (to be announced)

Contact: Jerry Rifkin (jerryr95@comcast.net)

NARGS Chapters Award for Service Presented to

Carol Clark, Ontario Chapter: submitted by Cheryl Johnson

Chris Glenn, Piedmont Chapter: submitted by Amelia Lane

Patrick Ion, Great Lakes Chapter: submitted by Andrea Urda Thompson

Donna McMaster, Ontario Chapter: submitted by Cheryl Johnson

Rob Staniland, Calgary Chapter: submitted by Margaret Fong

See the full write up of these awards on the on-line version of the spring issue of the Rock Garden Quarterly, page 191.

Applications for Norman Singer Endowment Funding Due April 30, 2018

NARGS expects to award up to \$7,000 in grants in 2018 to one or more projects that advance the art and science of rock gardening. Guidelines for submittal of applications and selection of projects, as well as the application form, are posted on the NARGS website at <https://nargs.org/norman-singer-endowment-fund>

The deadline for submittal of applications is April 30, 2018. Awards will be announced in July.

Nominations for 2018 NARGS Board of Directors Election of Three Directors

On-Line Election May 1 – 15, 2018

All members will be sent a link shortly before the election opens. Members without an email address may request a paper ballot from NARGS, PO Box 18604, Raleigh, NC 27619-8604.



Michael Guidi (Colorado): Michael is a horticulturist at the Denver Botanic Gardens, where he manages the Mordecai Children's Garden that showcases Colorado life zones from the Great Plains to the alpine tundra and includes several crevice gardens. While he grew up in upstate New York, he's since fallen in love with the flora of the Rocky Mountain region. While alpine and high elevation western flora are his main areas of horticultural interest, he is also passionate about keeping up

with the latest in plant biology. Michael has also worked in the Rock Alpine Garden at Denver Botanic Gardens and has also been involved in a number of field botany projects.



Jeffrey Hurtig (Ontario): is a retired anaesthesiology and intensive care physician and researcher. He lives in Ottawa and is co-chair of the Ottawa Chapter. Previously, he lived in Connecticut and was treasurer of the Berkshire Chapter, serving on the NARGS By-Laws Committee. Jeffrey has an interest in growing alpinines in troughs on his condominium balcony. He is especially keen to attract new, young members to NARGS and is exploring the needs of this population. Because

many retirees and young people live in condos and apartments, Jeffrey advocates troughs as an approach in this regard. As a Board member, he will contribute to the growth and success of NARGS in any way he can.



Mariel Tribby (Missouri): Mariel is a Senior Horticulturist at Missouri Botanical Garden, where she grows a diversity of plants in three rock gardens and a perennial border. She loves to travel and visit plants in their natural habitats, most recently on the Bighorns tour last June. Mariel has been a member of NARGS since 2012. She joined the Gateway chapter in 2014, was the chapter chair for two years, and continues to serve as the chapter liaison to NARGS. She is continually inspired by

the knowledge base of NARGS members and the gardens and natural areas she has seen during meetings and tours.



Judy Zatsick (Virginia): Judy has been a horticulturist for 12 years at Green Spring Gardens, a 22-acre public garden and historic site in northern Virginia. She is responsible for the large rock garden at the Horticulture Center. Additionally, Judy also curates the glasshouse collection, oversees the Garden Gate plant shop, manages other gardens, and conducts classes on horticulture. She has been involved with NARGS for several years, including serving as vice president of the Potomac Valley Chapter

for the past three years. Judy learned a tremendous amount through her affiliation with both NARGS and the local chapter. As a director of NARGS, she'd like to be involved in engaging a new generation of rock gardeners.

NARGS Donations

November 2, 2017 to February 8, 2018: \$22,736.

In memory of Verna Pratt, Norman Deno, and Vera Myjer; in honor of David White (Piedmont Chapter) "who is such a great organizer;" and to support the Seed Exchange, Rock Garden Quarterly, Traveling Speakers Program, and General Fund.

- Anonymous 1 & 2
Allegheny Chapter—NARGS
Alaska Chapter—NARGS
Hudson Valley—NARGS
Minnesota Chapter--NARGS
New England—NARGS
Nova Scotia Chapter--NARGS
Piedmont Chapter—NARGS
Rare Plant Group (Wisconsin)
Rocky Mountain Chapter—NARGS
Watnong Chapter--NARGS
Wisconsin-Illinois Chapter--NARGS
Adelman, Elizabeth L. (Wisconsin)
Adler, Lee Howard (New York)
Alvén, Annica (Sweden)
Baer, Christine (Michigan)
Bainas, Zandra (Ontario)
Barrett, Karen (Maryland)
Beelman, Clare (Montana)
Bennett, Teri L. (Virginia)
Bennion, Frank (United Kingdom)
Betts, Mary (Maine)
Black, Lida A. (New York)
Blade, Robert Logan (Washington)
Blaha, Karel (Washington)
Bolt, Joan F. (Michigan)
Bouffard, Vivien (Massachusetts)
Boulby, Christine (United Kingdom)
Bowlby, Astrid (Maine)
Burch, Ronald (Washington)
Caroff, Julie (Michigan)
Carrier, Bernard (Quebec)
Church, Clara A. (California)
Clark, Mary (Minnesota)
Clark, Susan (Massachusetts)
Clark, Thomas (Massachusetts)
Coates, Norman (Missouri)
Collins, Jane (Virginia)
Cook, Scott (United Kingdom)
Curtis, Lee (Colorado)
Dambrosi, Paul (New York)
Damisch, Lyn (Illinois)
Darling, Eric H. (Massachusetts)
Dearing, Michael (Wisconsin)
Deaven, Larry L. (New Mexico)
Diller, Roberta (Pennsylvania)
Domin, Patricia (Alberta)
Du Toit, Helen (Massachusetts)
Duffus, Roslyn (Nova Scotia)
Dussler, Barbara (Germany)
Earle, Carol E. (Colorado)
Egan, Susie (Washington)
Evanetz, Susanne (British Columbia)
Faden, Robert (Virginia)
Fisher, Alister (New Zealand)
Franklin, Catherine W. (Alaska)
Fuller, Tim (United Kingdom)
Gentling, Peter (North Carolina)
Gilrein, John E. (New York)
Gluek, Nancy K. (Massachusetts)
Gonzy, Michele (France)
Groves, Marsha (Ontario)
Gryboski, Maryanne (Connecticut)
Haas, Joan T. (Pennsylvania)
Hall, Steve (Oregon)
Hampton, Kay Sandra (Illinois)
Hayes, Peter Paul (United Kingdom)
Hegedus, Mary (Colorado)
Hennessey, Barry (United Kingdom)
Hewgley, Greg (Colorado)
Highberg, Patricia (Vermont)
Hirsch, Eric (New York)
Hoeffel, Joan (New York)
Hogenson, Gordon (Washington)
Horwitz, Lola Lloyd (New York)
Houdek, Robert (Ohio)
Hoy, Trond (Norway)
Hubbard, Neil (United Kingdom)
Huggler, Carol M. (Alberta)
Hultman-Hallberg, Annika (Sweden)
Humphries, Terry (New York)
Hutchison, Boyd (Massachusetts)
Illman, Richard John (Australia)
Jakob, Maria-Louise (Germany)
Jankunis, Marion (Alberta)
Jeddeloh, Jan (Oregon)
Johannessen, Road (Norway)
Jukuri, Stephen (Michigan)
Meszaros, Patricia (Saskatchewan)
Jurries, Elaine (Colorado)
Kaza, Ravi (Connecticut)
Kelley, Sabra (North Carolina)
Khayatt, Carol J. (Minnesota)
King, Catherine (Utah)

Kmock, Blanka (New York)
 Koch, Helen G. (Maine)
 Koltun, Nancy (Illinois)
 Konen, Sally (Idaho)
 Kramer, Hans (Netherlands)
 Kremetz, Peggy (New Jersey)
 Kueppers, Carol (Pennsylvania)
 Kurio, Cathy (Alberta)
 Lane, Amelia P. (North Carolina)
 Larsson, Bertil (Sweden)
 Leece, Cathy (Minnesota)
 Leggatt, Anna (Ontario)
 Lewis, Catharine (New York)
 Lewis, Mary (New Hampshire)
 Loeffler, Ann R. (New Hampshire)
 Lucas, Eric S. (Oregon)
 Ludwig, Kiamara (California)
 Lutes, Roderick (New Brunswick)
 Macartney, Kathy (Ontario)
 Magyar, Sandra L. (Connecticut)
 Maltby, David (Ontario)
 Marsolo, David (Ohio)
 McCarty, Sarah (New Mexico)
 McDonough, Mark (Massachusetts)
 McDowell, Marta (New Jersey)
 McInnes, Laurie (Australia)
 McKelvey, Darcie (Ontario)
 McKenzie, Laurel (New Hampshire)
 Mear, Doreen (New Zealand)
 Milano, Phyllis (Connecticut)
 Miller, Joyce E. (Oregon)
 Mitchell, Colleen (Michigan)
 Mizin, Michael (Pennsylvania)
 Monney, Bruny (Switzerland)
 Moscetti, Paula (New Jersey)
 Muggli, Michael A. (Minnesota)
 Myjer, D'Arcy (California)
 Nakazawa, Kiyoshi (Japan)
 Nedveck, Nancy (Wisconsin)
 Nelson, Lennart (Sweden)
 Norrback, Kaj (Finland)
 Okada, Muneyuki (Japan)
 Pacholko, Helen (Alberta)
 Panajoti, Helen (New York)
 Peachey, Harold (New York)
 Petersen, Alan (Arizona)
 Pettersson, Kerstin (Sweden)
 Phelps, Laurence (Wisconsin)
 Pittenger, Robert (Oregon)
 Plankeel, J. W. (Netherlands)
 Pomfret, Mary (Ontario)
 Pykkonen, Kevin (Colorado)
 Rafferty, Sean (British Columbia)
 Rayner, Gizelle C. (Washington)
 Rembetski, John (New Mexico)
 Rewolf, Egnaro L. (Connecticut)
 Riggs, Rudy (North Carolina)
 Ripperda, Jerry (California)
 Robertson, John (Illinois)
 Rosenberg, Ann (Pennsylvania)
 Rummerfield, Mike (Washington)
 Salatino, Sarah (Vermont)
 Sanderson, Amy (Alberta)
 Sayce, Kathleen (Washington)
 Scharf, Barb (British Columbia)
 Schellinghouth, Jan H. D.
 (Netherlands)
 Schleifer, Liane Amy (Georgia)
 Schmidt, Loren (Alberta)
 Schramm, Nancy (California)
 Schroeder, Jens-Michael (Germany)
 Schueler, Lynn (Washington)
 Scott, Carole (Alberta)
 Seiden, Bella (Ontario)
 Sharpe, Jim (Nova Scotia)
 Sierra, Mary-Stuart (Maryland)
 Skulason, Fridrik (Iceland)
 Smith, Carole P. (Ohio)
 Spriggs, Paul (British Columbia)
 Steinmetz, Julia (Michigan)
 Stella, Mary (Alaska)
 Stevens, Rose (Ohio)
 Stockwell, Richard (United Kingdom)
 Straub, Peter S. (California)
 Strickler, Sarah (Virginia)
 Stuart, Rob (Ontario)
 Tallman, Marna (Oregon)
 Tarrant, Georgina (Nova Scotia)
 Thompson, Jennifer (Wyoming)
 Thompson, Leah (California)
 Tuite, S. F., Mrs. (United Kingdom)
 Turunen, Michael (Finland)
 Twining, Eloise (California)
 Vanspronsen, Arie (Ontario)
 Brastow, Dave (Washington)
 VanSteen, Ferdinand (California)
 Vaxvick, Linda L. (Alberta)
 Waldrep Lynda (North Carolina)
 Waltz, Peter (New Hampshire)
 Warren, Paul (New York)
 Weiss, Edward (Michigan)
 Whyman, Steven (North Carolina)
 Wiersdalen, Inger Lise (Norway)
 Willis, John (Maryland)
 Wollenberg, Bert van den
 (Netherlands)
 Wright, Pamela (Ontario)
 Zeeh, Reiner (Germany)

NARGS Awards Nominations Due May 1, 2018

Nominations are due to Panayoti Kelaidis, chair of the Awards Committee, by May 1, 2018. Electronic nominations only, please. Email to: telesonix@outlook.com

Award of Merit: Established in 1965, this award is given to persons who have made outstanding contributions to rock and alpine gardening and to the North American Rock Garden Society. In addition, the recipients will be people of demonstrated plantsmanship. The recipient must be an active member of the Society.

Marcel Le Piniec Award: Established in 1969, this award is given to a nursery person, propagator, hybridizer, or plant explorer who is currently actively engaged in extending and enriching the plant material available to rock gardeners. This may be a joint award if two people have worked closely together. The recipient need not be a member of NARGS.

Edgar T. Wherry Award: Established in 1973, this award is given from time to time to a person who has made an outstanding contribution in the dissemination of botanical and/or horticultural information about native North American plants. The works must be scientifically sound, but may be written for popular readership and do not have to be specifically about rock garden plants. Generally, the award recognizes a body of work or a lifetime of literary effort rather than a single work (see the Carleton R. Worth Award). The recipient does not have to be a member of the Society.

Carleton R. Worth Award: Established in 1985, this award is given to an author of distinguished writings about rock gardening and rock garden plants in a book or in magazine articles. The Award may also be based on an Editor's body of work for a Chapter Newsletter. The recipient does not have to be a member of the Society.

Marvin E. Black Award: Established in 1990, this award is given to a member of the Society who excels at promoting membership in NARGS; organizing study weekends, national, and international meetings. They should also be involved in such activities as planning trips to study plants and to meet other plant people. The emphasis shall be placed on a member who has helped other people to reach their potential in the plant world. The recipient must be a member of the Society.

Linc & Timmy Foster Millstream Garden Award: Established in 2006, this award is for an outstanding contribution to the North American Rock Garden Society for creating a superior garden. This is not meant to be a competition, but to recognize members' great gardens across the various styles and regions of the United States and Canada. Since there is such a wide range of possibilities in style and climate regions, it has been decided there needs to be four categories of gardens. They are: the Container Garden, the Alpine Rock Garden, the Woodland Garden and the Special Garden. Any of these gardens must be a private garden to eliminate unfair institutional advantages. This award is meant to reward the creation of gardens, which meet a wide standard set by the North American Rock Garden Society, and reflects well on that society. The Millstream award should be submitted with a short one-page essay (300-500 words--that can be published in the *Rock Garden Quarterly*) with 3-7 images (preferably sent at 1 MB, but with higher resolution backup available if the garden is to be featured in the *Quarterly*). The recipient must be a member of the Society.

Frank Cabot Public Garden Award: Established in 2018 this award is given to a public garden that excels in furthering the purpose of the North American Rock Garden Society in promoting the construction and design of rock gardens; the cultivation, conservation, and knowledge of rock garden plants and their geographical distribution; and the public outreach through plant exploration and introduction of new garden-worthy species. The award is limited to great public gardens in the United States and Canada that meet high standards in the creation of public rock gardens. Since there is such a wide range of possibilities in climate and geographic regions, there are four categories of public gardens that may be considered for the award. They are: the Container Garden, the Alpine Rock Garden, the Woodland Garden, and the Special Garden. The Frank Cabot Public Garden Award should be submitted with a short one-page essay (300-500 words--that can be published in the *Rock Garden Quarterly*) with 3-7 images (preferably sent at 1 MB, but with higher resolution backup available if the garden is to be featured in the *Quarterly*).

New Members

*Welcome to all those who joined between
November 1 2017 and February 8, 2018*

Adams, Robert, 1453 North Riley Hwy, Shelbyville, IN 46176-9432
Adleman, Debra, 366 Lake Ave, Montrose, PA 18801-1545
Allison, Elisabeth, Pine Ridge Studio, POB 367, Woodlawn, ON K0A 2M0,
Canada
Amrhein, David, 2273 Ferguson Rd, Allison Park, PA 15101-3505
Armstrong, Judy, 3881 E. 146th Ave, Brighton, CO 80602-7762
Auger, Martin, 1070 Moncton Ave, Quebec, QC G1S 2Y8, Canada
Bachman, Jenna, 105 Estes Dr Ext, Apt B, Carrboro, NC 27510-1487
Bowlby, Astrid, 766 Veterans Way, Brooks, ME 04921-3910
Brunjes, Diane, Horticultural Art Soc., 15646 Transcontinental Dr, Monument,
CO 80132-6104
Carpenter, Kenneth, 172 Roselawn Ave, Toronto, ON M4R 1E6, Canada
Cheshire, James, 3185 Raccoon Valley Rd, Granville, OH 43023-9472
Coates, Lee, 298 Garges Blvd, Highlandville, MO 65669-8109
Craft, Madeline, 18888 Moorepark Rd, Three Rivers, MI 49093-9677
Cullingham, Val, 128 Oakcliffe Place SW, Calgary, AB T2V 0J8, Canada
Empey, Dave, 1040 N Tabor Dr, Castle Creek, CO 80401-8995
Fallon, Graham, 106 Warren Crescent Dr, Keswick, VA 22947-3116
Fawcett, Susan, Plant Biology-UVM, 111 Jeffords Hall, 63 Carrigan Dr, Burlin-
ton, VT 05405-1737
Ford, Steve, 229 Cascade Dr, High Point, NC 27265-8612
Fox, Diana, 5826 Gillis Dr, San Antonio, TX 78240-3438
Gahwiler, Donna, 7903 W 88th St, Indianapolis, IN 46278-1113
Gault, Ranald, 5832 Dalgetty Dr NW, Calgary, AB T3A 1J3, Canada
Gillespie, Cameron, 300 W Webster St, Galax, VA 24333-2842
Guidi, Michael, Denver Botanic Gardens, 1007 York St, Denver, CO 80206-3014
Hajek, Radovan, 10721 W State Rd 142, Quincy, IN 47456-9488
Harder, Lawrence, 28 Cromwell Ave NW, Calgary, AB T2L 0M5, Canada
Hartman, Perry, 806 E 14th St, Lawrence, KS 66044-3537
Haynes, Blair, Shinglehouse Nursery, 63385 Shinglehouse Rd, Coos Bay, OR
97420-7298
Helkio, Timo, Kullervontie 10, Uusikaupunki 23500, Finland
Herbstritt, Chris, 10608 Santa Anita Ter, Damascus, MD 20872-2178
Herzberg, Gene, 78 Fox Ave, St. John's, Newfoundland A1B 2J2, Canada
Hitchcock, Laura, 118 Roywood Dr, Toronto, ON M3A 2E1, Canada
Inglis, Grace, 440 Reach St, Port Perry, ON L9L 1X1, Canada
Johansson, Beatrice Buzsaky, Gnejsvagen 10, Huddinge 141 39, Sweden
Kircher, Wolfram, Anhalt University, Alte Schenkenbreite 121, Stassfurt,
D-39443, Germany

Klotz, Larry, 27 Colonial Ct, Shippenburg, PA 17257-9588
Malone, Sara, Amer. Conifer Soc., 909 Mustang Ct, Petaluma, CA 94954-8546
Manfredi, Michelle, POB 170, Vineyard Haven, MA 02568-0170
McGehee, Bellingrath Gardens, 12401 Bellingrath Gardens Rd, Theodore, AL
36582-8460
McKelvey, Darcie, 16771 Albion Tr, Caledon, ON L7E 3R1, Canada
Midgley, Jan, 53 S Kendrick Ct, Golden, CO 80401-5091
Moore, Walter, 241 Honeysuckle Ln, Reidsville, NC 27320-9689
Moyan, Jim, POB 6853, Auburn, CA 95604-6853
Nicholls, Gerry, 22 Cheryl Dr, Monroe, CT 06468-1082
Obrien, Gretchen, River Rock Nursery, 19251 SE Hwy 224, Damascus, OR
97089-8845
Howe, Peter, 1274 Island Dr, Logan, UT 84321-4439
Okada, Muneyuki, Kitau Yurigahara 10-Choume 6-5-105, Sapporo 002-0811,
Japan
Penniman, Mary, 266 School St, Acton, MA 01720-5315
Richardson, Wendy, 2 Prospect Ter, The Row, Elham, Kent, CT4 6UL, United
Kingdom
Schultze, Chris, 15695 E Prentice Dr, Centennial, CO 80015-4264
Silvia, Mike & Blaine Turcotte, The Harraseeket Inn, 60 Woodside Rd, Brun-
swick, ME 04011-7428
Slichter, Paul, 700 NE 18th Ct, Gresham, OR 97030-4004
Smith, Damon, 1302 Troy Dr, Madison WI 53704-2232
Spurlock, Kay, 340 E 11th St No. 5, New York, New York 10003-7456
Taylor, Mionne, 1047 Garden Ln, Millgrove, ON L8B 1P2, Canada
Tonnesen, Alex, Western Native Seed, POB 188, Coaldale, CO 81222-0188
Vergera, Scott, Woodland Gardens, POB 419, Burley, WA 98322-0419
Williamson, Megan, 2901 Saint Paul Ave, Madison, WI 53704-5131
Wrather, Brian, Blue Sky Horticultural Svs, 8415 Drover Ln, Eureka, MO 63025-
3579

**We have learned of the death of the following
NARGS members:**

Alan Thomson, Pennington, Ulverston, United Kingdom

Lyn Sauter, Seattle, Washington

Lee Miller, Washington, D.C.

SEED EXCHANGE

Another year, another spring – and how delightful to look ahead to another gardening and growing season. We have a relatively brief hiatus during the winter, which is fortunately filled with catalogs and seedlists and seed sowing.

We hope that you participated in our NARGS Seed Exchange, by donating seeds last season and/or acquiring seeds this winter, or volunteering your help during any of the phases of the seedex. To the **211 donors** and the **596 participants** in the Main Distribution, we say “Thank You!”

The several chapters and individuals who repackaged and labeled all the donated seeds deserve a big hand for spending precious pre-holiday time in service to the NARGS seedex.

The ordering system on our website operated at peak efficiency and the volunteers in the **Sierra Chapter** handled both electronic and mailed orders beautifully. As I write (at the end of the Main Distribution) we are expecting the online ordering program and the postal service to bring in hundreds of more requests during the Surplus Distribution in March. Those orders will be very capably handled, once again, by the members of the **Columbia-Willamette Chapter**.

Our thanks go to the many volunteers in both chapters for their two years of service to the NARGS Seed Exchange.

The central role, played by our Seed Intake Manager Laura Serowicz, cannot be overstated. Laura manages the seed database, choreographs the packing and shipping of all the seeds and supplies to the many chapters and individuals who handle the repackaging, oversees the functioning of the electronic ordering system, and continually offers patient and helpful advice to the members who order and the volunteers who fill those orders throughout both seed distribution phases.

Laura has also added a page of links to very useful information regarding collecting, cleaning, identifying and germinating seeds. It can be found at: <https://nargs.org/seed-exchange-helpful-links>

As you work/play in your gardens this season, please consider how many of your plants are the results of seedex seeds – available directly to you, and to friends who have shared with you. Think of all the seedlings of rare and delightful plants at your chapter sales. Then make a point of gathering and cleaning seeds from your gardens and on your travels, and share them with your fellow members. “Paying it forward” was never more apt.

Joyce Fingerut, Director
NARGS Seed Exchange

A Note to Seed Donors from Outside the U.S.

Through the depths of winter, we rely on the seed exchanges for intimations of spring. Seeds carry our hopes for the new season, and remind us of all those plans we have made for improving our gardens... somehow, always next season.

We hope that your plans for the coming gardening season include donating seeds to the NARGS seedex. Here, we must add a special word to our kind Donors from Canada and points overseas:

We appreciate any contributions that you can offer, but before you spend any time and effort at collecting and cleaning your seeds (and we certainly recognize that it does take a good deal of time and effort), be sure to check the list of seeds that are Restricted - that is, they may not be imported into the United States. And be sure to follow our packaging instructions, which will help the inspectors process your seed shipment more quickly.

Identification:

You will see that there are various reasons why certain seeds are not permitted to enter the U.S. The information compiled on our web page: <https://nargs.org/restricted-seed> was extracted from the official Plants for Planting Manual of APHIS-PPQ (link to the full manual is on our web page).

- Some may come from plants that are endangered and listed under CITES I (the Convention on International Trade in Endangered Species) or ESA (Endangered Species Act).
- Other seeds may need treatment(s) to mitigate the possibility of their carrying pests or diseases, and available treatments are either not cost effective for NARGS, or are unavailable for small lots of seed.
- Some seeds are from plants that are considered to be noxious pests themselves, acting like invasives in parts of the U.S., even though they may be on their best behavior in other areas.

Occasionally, entire genera or complete families are prohibited entry; for instance, members of the Rutaceae, which can carry bacteria like citrus greening, a terrible threat to the entire citrus industry.

In a number of cases, seeds are permitted to enter from some countries while prohibited entry from other countries because of diseases or pests occurring there. So, to simplify things, we have just listed the seeds as prohibited altogether.

Also, the restrictions require that any seed from a CITES- or ESA-regulated genus be identified fully by genus and species, and they do not allow the entry of any seed without a given species name from a genus that has one or more species that are restricted for any reason – e.g.: *Rhododendron* sp. Because *Rhododendron minus* var. *chapmanii* is an endangered species, there is no way of knowing whether *Rhododendron* sp. might be that endangered species (even if from a garden-grown plant). So all seeds that you send are best fully identified down to species.



Properly packaged, sealed and labeled seeds.

Packaging:

Naturally, we at NARGS and the inspectors all require that your seeds be clean of any debris from soil or chaff.

Whenever possible, please send seeds in glassine envelopes, which are always available for purchase from our website: <https://nargs.org/glassine-envelopes>

Seal the envelopes by folding over the top flap below the crease and closed with tape, to make sure that there are no corner gaps through which the seeds can be lost. Please use tape to seal the seed packets, not glue, as inspectors may need to open them for inspection and then reseal them. You may also use clear, resealable plastic bags, which have the advantage of being easy to open and re-seal after inspection.

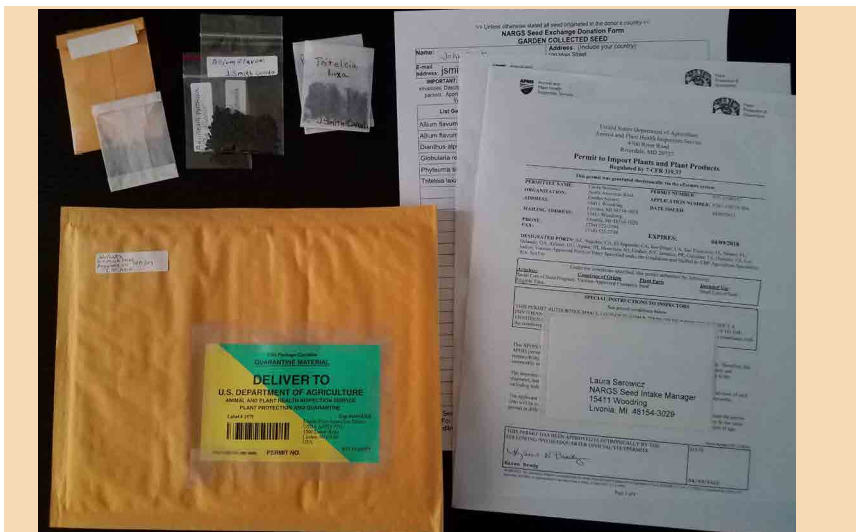
Every packet must be labelled on the outside with the following information:

- Botanical name, with the genus – and the species, if known – with no abbreviation of the genus

- Donor's name

- Country shipped from

Every shipment of seeds must be accompanied by the NARGS Donation Form or an Invoice with an alphabetical list of all taxa in the shipment. Please be sure to list ALL the seed that you are sending. If a particular seed does not appear on the alphabetical list, it will not be allowed entry and could perhaps prevent the whole shipment from being imported... or at least delayed beyond our seedlist deadline. It would be a pity for all your work to go to waste, with you not receiving Donor privileges and our members not enjoying your seed donations.



All the items that should be included in your shipment when donating seeds.

Inside your shipping envelope, include the copy of the Small Lots of Seed import permit (all pages) that you receive with your Summer issue of the Quarterly, with the mailing label addressed to Laura Serowicz still attached.

On the outside of your padded shipping envelope, secure the green & yellow mailing label (attached to the permit sent with the Quarterly) using adhesive tape on three sides, not glue, so that inspectors can easily remove the green & yellow label before forwarding the shipment to Laura Serowicz. Add your return address to the upper left corner of the padded envelope.

The vast majority of seed donations have made it through the systems (postal and inspection) without any problems at all. This article is simply by way of a refresher for veteran donors, and clarification for new donors.

If you have any questions pertaining to the importation of seeds, the Permitting and Compliance Coordinator for APHIS's Plant Health Programs has offered his contact information:

Steven Crook
 4700 River Road Riverdale, MD 20737
 Office 4C-01D
 301-851-2165

Of course, you can always reach me:
 Joyce Fingerut, Director NARGS Seed Exchange
 alpinegarden@comcast.net
 537 Taugwonk Road
 Stonington, CT 06378-1805
 860-535-3067

Many thanks for your participation in the NARGS Seed Exchange and, especially, your valued donations!

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**For information on advertising, please contact
Joseph Tychonievich gsparrowgardens@gmail.com**

Got a trick or tip to share?

Do you have a special trick that makes life easier or plants grow better in your garden? Something useful and cool, but maybe not big enough for a whole article?

I want to start a new "Tricks and Tips" feature in the Quarterly where you can share your handiest ideas with other NARGS members.

Just send your best ideas in to gsparrowgardens@gmail.com and share your best ideas with the rest of the NARGS community!

NARGS Chapter Awards for Service Presented to:

Carol Clark: Ontario Chapter

Submitted by Cheryl Johnson

Carol Clark is a treasure for the Ontario Rock Garden & Hardy Plant Society (ORG&HPS) as well as for anyone who grows plants from seed.

She started growing seeds from our Seedex in 1998 and found she needed more germination information. The available books were in short supply and the internet had fewer leads than it does today. In 2002, she suggested compiling germination data and sharing it with our members. She volunteered to do this and combed multiple resources (e.g., Norm Deno's Germination Guides, a pamphlet from ARGS, and communicating with Jack Elliott about alpiners). She consulted experienced members and a code was compiled. Our online germination guide was started. At first only 30 percent of the seeds had germination codes. By 2016, only one percent lacked codes. Members send Carol their experiences, plus pictures for our germination page on the ORG&HPS website. Today, the web site's Germination Guide gains international attention and has resulted in a number of new members joining ORG&HPS.

Carol is an active member of the ORG&HPS web site team. She updates and maintains information on many of the pages such as Program, Membership, Germination Guide, and Seedex. She is in constant communication with Webmaster Ewan Mackay about the web site. She also deals with innumerable questions from the public, such as "Do any of your members grow *Hylomecon japonica*?" or "Why don't you use common names?"

The Seedex is another area where Carol excels. With help from Ewan Mackay, she has developed a program for checking plant names for correct spelling and whether they are accepted names or synonyms. Helping to proofread the Seedex, she contacts donors for clarification, monitors on line ordering, and documents Seedex Procedures.

Carol's web site work made it logical for her to combine the job with that of Membership Secretary. She keeps track of members, makes sure we have labels for meetings, and produces statistics on renewals and membership decline or expansion.

She also works on our informative Members Handbook, produced annually.

Where would we be without her? Thank you, Carol.

Donna McMaster: Ontario Chapter

Submitted by Cheryl Johnson

Donna quietly does many jobs and keeps an eye out, making sure we are proceeding in the right direction. Donna has served as Vice-Chair, Chair, and Past-Chair of our chapter, always providing wise and considered guidance.

For many years she planned Ontario Rock Garden & Hardy Plant Society (ORG&HPS) summer garden tours with great success. She has been a member and chair of the annual Super Plant sale committee and the Nominating Committee.

Donna has organized and helped with ORG&HPS booths at "Get the Jump on Spring," "Canada Blooms," and other venues.

The Seedex is another beneficiary of Donna's many talents. She assists with donor labeling, seed packaging, picking and packing, and with storing and moving supplies.

When help is needed, Donna is there. Thank you, Donna.

Chris Glenn: Piedmont Chapter

Submitted by Amelia Lane

Chris joined the Piedmont Chapter of the North American Rock Garden Society in 2010. Since then he has been responsible for advertising and promoting our monthly meetings to the public, our members, and to JC Raulston Arboretum members through the local newspaper, gardening publications, and the JCRA's social media sites.

Starting in 2010, Chris has been in charge of the audiovisual portion of our meetings, coordinating with speakers to ensure that their presentations run smoothly and professionally. Having a successful presentation is such an important part of a meeting for our members, visitors, and new members.

He also serves as a liaison between the NARGS Piedmont chapter and the Raulston Arboretum, our meeting place. Chris is always willing to help facilitate scheduling and room arrangement plans.

For the 2017 AGM, hosted by our chapter in Durham, North Carolina, Chris was in charge of the use of the JCRA's audio visual equipment and ensured the success of the AV portion of each presentation. His expertise with the technicalities of the audiovisual equipment added greatly to the overall success of the meeting.

Chris's enthusiasm for the Piedmont Chapter, his dependability and willingness to serve, and the quality of his work are an asset to our Chapter. We are pleased to recognize his efforts through a NARGS Chapter Award for Service.

Patrick Ion: Great Lakes Chapter

Submitted by Andrea Urda Thompson

We nominate Great Lakes Chapter's former Chairperson, Patrick Ion, for the NARGS Chapter Award for Service. Since joining the Great Lakes Chapter in 1993, Patrick has been an active member, whose participation as a member and then Chapter leader culminated in the hosting of the 2015 Annual General Meeting in Ann Arbor, Michigan.

As the Chapter Chairperson from 2013 to 2016, Patrick's gracious manner and inclusive style of leadership allowed for members' views to be heard and considered, leading to better outcomes and consensus building. Nowhere was this more evident than in the planning and holding of the 2015 AGM. Patrick's leadership was an essential ingredient to the success of that meeting.

Patrick is the kind of member and leader that makes an organization and its projects successful, as he is willing to both lead and to take on the execution of necessary, but difficult, tasks. Two such instances show these qualities: his building and upgrading of our Chapter web site, and his careful, accurate budgeting and accounting for the 2015 AGM.

A mathematician by profession, Patrick's talents with all things numerical encompasses coding and accounting. Recognizing the need for a Chapter web site, he created one from scratch, with postings of meetings, a newsletter archive and a forum for members.

Despite a busy work schedule, he has recently undertaken a revamping of the Chapter web site to allow dues payments, as well as a blog where members can post pictures and discuss what's growing in their gardens. As attendees at the 2015 AGM know, our chapter has some extraordinary gardeners, growing rare and beautiful alpines and spring ephemerals. Patrick's behind the scenes work on the web site is making their expertise and botanical treasures available to a wider audience.

Patrick also undertook the critical tasks of budgeting and then accounting for the 2015 AGM while presiding as Chapter Chair. Through the many aspects of an AGM, from meals to transportation, programs to post-conference tour, Patrick first provided estimates, then monitored the actual results, keeping the planning and execution of the AGM and post-conference tour on track to be a memorable experience for attendees while remaining in the black.

In addition to these contributions to the Chapter, Patrick and his spouse, Bonnie, have opened their home to meetings and their garden to plant sales and tours. Patrick and Bonnie garden on a city lot in Ann Arbor, where they have a crevice garden. They also grow some lovely rhododendrons, notwithstanding southeastern Michigan's limey soil – yet another instance of their many talents and achievements.

Rob Staniland: Calgary Rock and Alpine Garden Society

Submitted by Margaret Fong

It gives me great pleasure to nominate Rob Staniland for a NARGS Chapter Service Award based on his distinguished service and devotion to CRAGS (Calgary Rock and Alpine Garden Society). This nomination is seconded by Linda Vaxvick, CRAGS Vice President.

Rob joined at the second meeting of the Alpine Study group that ultimately became CRAGS in 1994. He has been on the Board of Directors at various times and most recently for the past ten consecutive years. We believe Rob to be the longest serving executive in one capacity as Treasurer: ten years. He has cheerfully taken care of general bookkeeping, deposits, paying bills, preparing financial statements, and annual government submissions.

Rob has always been a stalwart of the CRAGS annual Plant Sale, our biggest fundraiser of the year. In 2016 CRAGS member Willi Roth died, our club's major contributor for the plant sale. Rob spearheaded a drive to compensate, staging three free propagation classes to educate members to make up the expected 50 per cent shortfall of plants for the sale. Part of that recovery was Rob's initiative to buy supplies in bulk and offer them to the membership at near cost. His efforts paid off as our plant sale saw a flood of plants and novice growers that filled the room.

In 2016 and 2017, Rob led our club's collaboration with the Botanical Gardens of Silver Springs (Calgary). From an initial chance meeting between Rob and one of the co-founders of that garden, two organizations and over 36 volunteers came together to create Calgary's first public alpine rock crevice garden. A formerly under-developed area was cleared of brush, manually excavated, and reconstructed into a large, impressive two-mounded display of crevice rock, alpine plants, and surrounding native plant garden. Under Rob's direction, over 800 hours of volunteer manpower prepared the soil bed, sourced rock material, built the garden, acquired and planted plants, and hand-rendered matching shards and rock topdressing.

This was not the first time that Rob has promoted alpine rock gardening in the province. In preparation for CRAGS hosting the 1999 NARGS AGM in Banff, Rob co-created a rock garden for the Banff Centre, a learning institution for art and creative development. Rob and his wife Nancy made the hour-and-a-half journey from Calgary to keep the garden sustained at their own expense for approximately five years.

He has been an active member of NARGS representing CRAGS over the years: attending NARGS meetings, hosting NARGS speakers, and acting as a tour guide for plant expeditions into the Rockies. He has written or co-authored various alpine gardening articles in such publications as the 2014 issue of *The Prairie Garden* magazine, (Western

Canada's only garden annual) and The Quarterly of the American Primrose Society.

Rob has regularly opened his large acreage with numerous alpine, native, and water areas for viewing to CRAGS members. He is a tireless gardener, experimenting not only with cultivars on the market but also with grafting dwarf conifers found in the wild. He often pushes the bounds of his zone 3, clay-based site by planting the unexpected, from oak trees to aquatic species to acid bog plants and cacti. His large backlog of seedlings is legendary. CRAGS have been very lucky to have such a knowledgeable, generous, and action-orientated member who has sincerely welcomed every new member to the club and enthusiastically mentored many of us. He freely shares his knowledge and experience with fellow members.

We are pleased to honor this outstanding gardener and CRAGS member.

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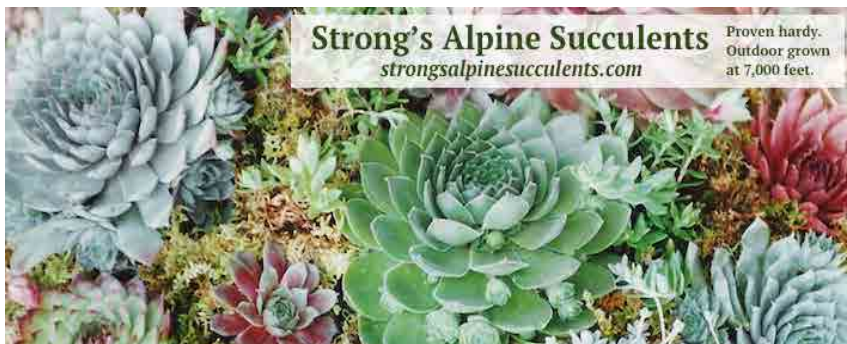
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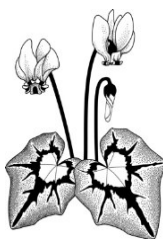
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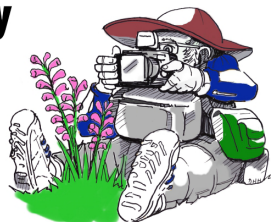
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The American Penstemon Society

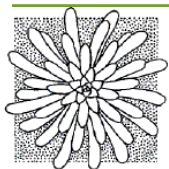
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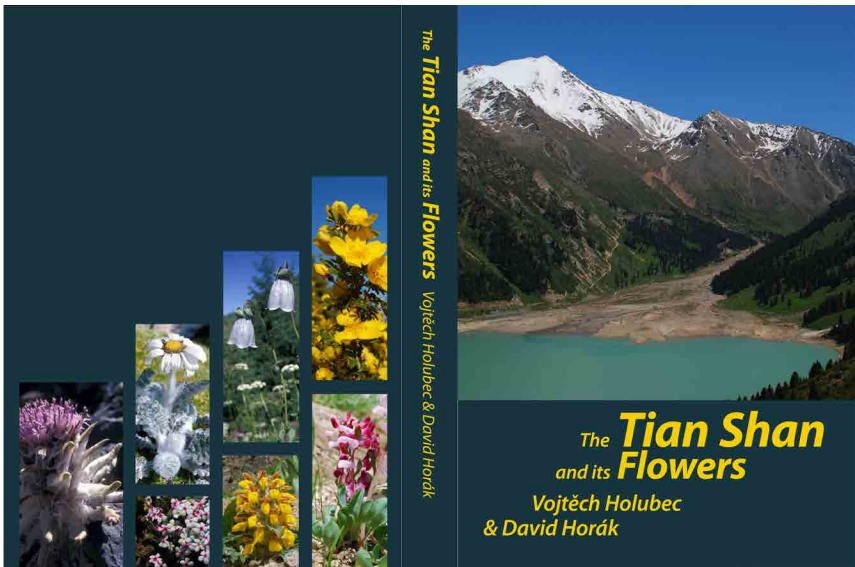
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The officers of the North American Rock Garden Society consist of a president, a vice-president, a recording secretary, and a treasurer. The officers are elected by the membership.

The Board of Directors of NARGS consists of the four above-named officers, the immediate past president of NARGS, and nine elected directors.

The affairs of NARGS are administered by an Administrative Committee (called AdCom) consisting of the president, vice-president, recording secretary, treasurer, and one director-at-large, selected annually by the NARGS officers from among the nine elected directors.

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Vice President	Don LaFond <plantjunkies@gmail.com> 11836 McGregor, Pinckney MI 48169-9517
Recording Secretary	Joyce Hemingson <jhem1022@gmail.com> 44 Rock Hall Rd., Colebrook CT 06021-7072
Treasurer	Richard Lane <rhlane01@gmail.com> 4904 Hermitage Dr., Raleigh, NC 27612
Director-at-Large	Panayoti Kelaidis, 1244 S Quince St., Denver, CO 80231 <telesonix@outlook.com>
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Immediate Past President	Matt Mattus <mmattus@charter.net> 26 Spofford Rd., Worcester, MA 01607

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Executive Secretary	Bobby J. Ward (919) 847-6374 P.O. Box 18604, Raleigh, NC 27619-8604 <nargs@nc.rr.com>
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**Back cover: Some of Dr. Oldřich Maxiner's saxifrage collection,
Paul Spriggs**