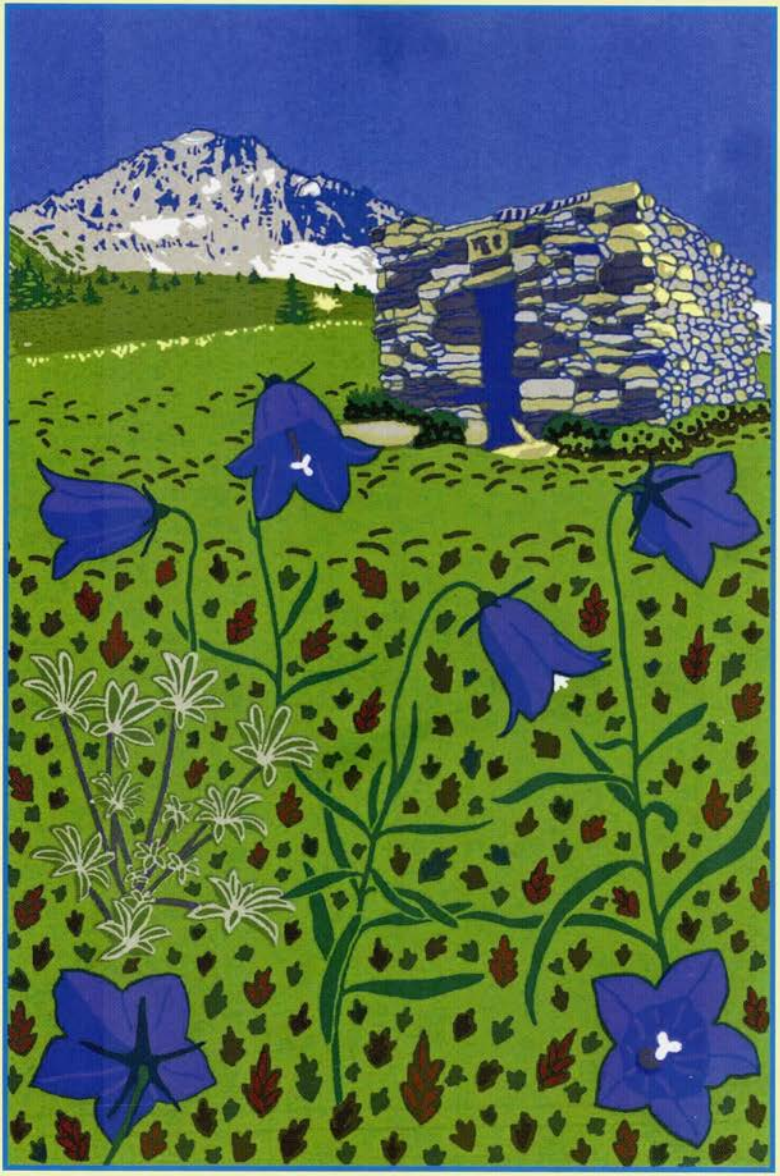
ROCK GARDEN *Quarterly*



Volume 68 Number 3 Summer 2010

Front cover: *Campanula rotundifolia* on Mount Hood, Oregon. Silk screen print by Sue Allen.

Back cover: *Gentiana grandiflora* in the Narymski Mountains, Kazakhstan. Photograph by Panayoti Kelaidis.

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ROCK GARDEN *Quarterly*

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Volume 68 Number 3 Summer 2010

Contents

From the Editor

This is the page where I bid farewell to the editor's desk of the *Rock Garden Quarterly*, though not to all the friends I've made through this work, nor to all the other activities that we enjoy in NARGS. I'm sure you will enjoy whatever new looks and content the next editor, Malcolm McGregor, brings to our journal.

The people who have helped me in this endeavor are too numerous to mention all of them, but I would like to give special thanks to some. The editor works closely with the Executive Secretary, and both Jacques Mommens and Bobby J. Ward have been supportive and efficient; Bobby also regularly contributes articles. The relationship between editor and president is crucial, and I have enjoyed getting to know all the presidents who served during my tenure.

I thank all the national meeting organizers who solicited and wrote articles highlighting the venues and encouraging attendance. Especially active in this regard were Kay Galvan, Panayoti Kelaidis, Ernie Boyd, Mike Slater, Martha Oliver, Joyce Fingerut, Iza Goroff, Bill King, Todd Boland, Bobby Ward, Andrew Pierce, Phyllis Gustafson, and Verna Pratt.

Our cover artists produce extraordinary work for little pay, lending the *Quarterly* a look unique among its peers. A round of applause is owed to Sue Allen, Tanya Harvey, Carol Kortnik, Diane Crane, the deeply missed Cindy Nelson-Nold, Jean LeCluyse, Paul Bowden, Lyn Noble, and Paula Fong.

Scores of people have submitted articles during my time, and please consider this thanks to you all. For regularly producing copy above and beyond the call of duty, however, let me mention Carlo Balistrieri, Brian Bixley, Todd Boland, Cole Burrell, Alexej Borkovec, the late Geoffrey Charlesworth, Michael Chelednik, Norman Deno, David Dobak, Iza Goroff, John Gyer, David Hale, Lola Lloyd Horwitz, Bernard Jackson, Elin Johnson, James Jones, Judith Jones, Panayoti Kelaidis, Bill King, Mike Kintgen, Anna Leggatt, Rick Lupp, Robin Magowan, Jim McClements, Rex Murfitt, Jack Muzatko, Graham Nicholls, Bob Nold, Andrew Osyany, Tony Reznicek, Loren Russell, David Sellars, Mike Slater, Tom Stuart, Gerald Taaffe, Marcia Tatroe, Bobby Ward, and Ev Whittemore. I would also like to mention some professional botanists who have responded remarkably to my requests to clarify rock gardeners' understanding of their specialties: Peter Boyce, Kim Blaxland, James Reveal, Noel Holmgren, and Harold Koopowitz.

The annual Photo Contest I instituted in 2002 has brought more contributors into the fold, and their work has given great pleasure to all of us. Keep the images coming! Another source has been Alpine-L, the international rock gardening e-mail list, where I found enthusiasts from whom I solicited articles and also initiated discussion topics that I worked into "forum" articles. Thanks to its many members, to its founding moderator, the late Harry Dewey, and to those who have carried on his work.

Finally, many thanks to Irish Setter compositors Patti Morris and Martin White, who have done all the design and layout, and to our faithful and acute proofreaders: Hans Sauter and Loren Russell for many years, and now Joyce Fingerut and Diane Whitehead.

Ups and Downs with Alpines in the Lowlands

Ger van den Beuken

To give you an overview of running a nursery growing rare or more difficult alpine plants in Holland, I need to go back in time about 20 years. Since then rather a lot has changed, first of all in regard to the material propagated. In the early days it was quite difficult for Dutch alpine growers to find their way around. Only a handful of nurserymen in the country could supply material, and not an awful lot was known from abroad either.

The foundation of an Alpine Society was therefore a very welcome development. It enabled people to get into contact with other enthusiasts who in turn knew where to find plant growers and seed suppliers. This is how I first heard of Sundermann in Lindau, a nursery with an excellent reputation and a considerable collection of alpine plants, among them many of the Porphyrion saxifrages in which I was especially interested. I sent away my first order. One of the highlights in my life as a nurseryman is still the moment when the phone rang and I heard that a parcel containing plants from Krefeld in Germany was ready waiting for me.

From that moment on, I was completely hooked, and I decided to grow plants commercially in my spare time. Saxifrages were very popular then, and hardly anyone here was growing them. This eventually changed dramatically as a lot of new material was put on the market, mainly from England and the Czech Republic. And not only saxifrages were widely offered. Many other plants have appeared, partly as the result of the increasing number of expeditions, not only by societies and botanical gardens but also by individual plant fanatics. Thus a wide range of plants and seeds has become available from all parts of the world.

This is the only way to obtain completely new plant material, but I have found that if you concentrate exclusively on the special plants offered in seed collectors' catalogues, you may have a problem selling them. The problem arises because collectors send their seed lists to as many nurseries as possible. A good example is *Physoplexis comosa*, still one of the most attractive alpines and hardly ever on offer in the past, being quite difficult to grow—until a certain year when seeds of it were offered by several suppliers. A year later plants were offered by almost every alpine nursery, resulting in a glut on the market.

I also find that many plants are susceptible to changes in fashion. These concerns make it hard to know when to grow the plants that will be most in demand. It is, however, essential to stay focused on the latest expeditions.

The Climate in The Netherlands

The Dutch climate is rather variable and makes growing the more difficult plants a challenge. Extremely hot summers in the past few years have been deadly for many species. Plants from New Zealand or the Himalaya, for example, have had a very rough time. I know that high alpine species such as *Saxifraga hypostoma* or *Saxifraga quadrifaria* cannot survive temperatures higher than 30° C (86° F), but in spite of this I try to propagate these plants year after year and to keep them alive. Himalayan primulas pose the same problem and are much better grown in climates like that of Scotland. This tells us that getting plants through summer is much harder than through winter. In winter you can cover the plants with sheets of glass to protect them from excess rain, but this time of year has its challenges too. You can have a spell of severe frost followed by a mild, wet period—conditions which do not in any way resemble the climate in high alpine regions, where the plants are nicely covered by a thick blanket of snow while dormant. We try to imitate as many conditions as we can to make the plants feel as much at home as possible. In raised beds, covered with glass in winter and protected by shading in summer, the plants do reasonably well. Growing plants in a cold frame is also an acceptable solution. The alpine house, however, is by far the best way to give all these delicate plants the best chance of survival.

The Alpine House

I built an alpine greenhouse three years ago, mainly to meet the demands of dionysias. A number of things have to be considered before a project like this, and all of them are equally important.

First of all, there is light penetration. In this, I chose acrylic glazing, which has a light penetration of 93%. This percentage is slightly higher than that of ordinary glass, with the added advantage that acrylic transmits all ultraviolet light. This is a very important detail, because ultraviolet light stimulates nice compact growth, and it also enhances the colors of the flowers. A disadvantage is the prohibitive price of acrylic sheets.

Another condition that definitely has to be met is good ventilation. The roof of my alpine house has six large ventilator sections, and all-around ventilation can be achieved with louver vents. Again, acrylic was used. All this and a stainless steel frame make this greenhouse almost indestructible and maintenance-free.

There are two raised beds, one for the dionysia collection (photos, p. 162) and the other for newly propagated material. The potted plants are plunged in a sand bed, 30 cm deep, and watering is mainly done by means of an underground irrigation

system. From time to time in a dry period, however, watering the plants from above as well is necessary. All my plants are grown in clay pots; I'll give details later.

Dionysia Collection

The range of plants on offer in my nursery mainly consists of dionysias, saxifrages, and androsaces, complemented by various rare species, usually grown from seeds collected during expeditions or from cuttings obtained by exchange with or purchase from other nurserymen. Rather a lot of new species have been introduced in the past few years, especially of the genus *Dionysia*. Little was heard about this wonderfully beautiful genus for a long time, but some years ago a Swedish expedition to Iran (abbreviated SLIZE) found a number of new species, such as *Dionysia zagrica, D. muzaffarianii, D. esfandiarii, D. iranshahrii,* several new clones of *D. janthina* (from which, much later, the first free-flowering form was selected in our alpine greenhouse), *D. termeana, D. hausknechtii, D. diapensifolia*, and some beautiful forms of *D. curviflora*. In the past few years a number of enthusiasts from Germany and Sweden have been busy in Iran and have brought back new material of all those mentioned above, as well as *D. kathamii, D. bazoftica, D. caespitosa, D. caespitosa var. bolivarii, D. spathulata, D. cristagallii, D. aubrietioides, D. rhaptodes, D. gaubae, D. archibaldii* var. *zschummelii*, and *D. lurorum*. Often the discovery of new species causes a loss of attention to species that have been in cultivation for years—a pity, because species such as *D. afghanica* and *D. viscidula* (photos, p. 163) are still rare. But *D. freitagii* and *D. microphylla* are also extremely beautiful species that deserve much more praise.

Many people have a rather negative attitude toward growing dionysias because they regard them as too difficult. And yet they're not really as hard as they seem. You do indeed have to create suitable housing for plants of this kind, but propagating and growing them is not such a hard task. The best time to propagate dionysias from cuttings is in spring, immediately after flowering, when the plants are in full growth. Admittedly, not all species root so easily, but generally speaking the results are not too bad once you have some experience in handling the plants. They root best in very fine, pure pumice, with most cuttings rooting within three to four weeks. The medium in which the plants are grown on is purely mineral, consisting of equal parts of tufa grit, Seramis (an expanded clay product similar to the Turface available in the USA), coarse sand, perlite, and granitic grit. It is very important to have a freely draining compost. All my plants are grown in clay pots. In spring a low-nitrogen feed is usually applied three times; the low nitrogen level helps to keep the plants compact.

Naturally, things do go wrong sometimes. Last year I lost quite a number of plants because of what I first thought was a fungus, but later the damage proved to have been caused by larvae of the vine weevil. Luckily, everything turned out all right in the end after an effective treatment with beneficial nematodes.

There are always new developments in the world of dionysias, so that enthusiasts like Michael Kammerlander and Josef Mayr have new material at their disposal

for hybridizing (photos, pp. 163–164). However, it might be worth limiting this activity to selecting hybrids that look quite different from existing named clones, rather than going the way that was taken in the case of the Porphyrion saxifrages. It's absolutely no use growing hybrids that are too much alike.

Favorite Saxifrages

That is the reason I have decided to limit myself, as far as these saxifrages are concerned, mainly to the botanical species and the cultivars, both old and new, that produce the most compact cushions and the most brilliant flowers. A species such as *Saxifraga lowndesii,* with dark pink flowers, is ideal for growing in a peat wall. Other species, such as *S. andersonii* and *S. stolitzkae* (photo, p. XXX), are relatively lime-tolerant and can form magnificent cushions on tufa. With many of these species you do have to provide some shade at the hottest time of day. It would be ideal to grow them in a spot with early morning sunlight only.

From the Caucasus some beautiful new species have been introduced recently, such as *S. columnaris* and *S. dinnikii.* The former grows on slightly drier rocks, while *S. dinnikii* feels more at home in damp habitats. Both species are now widely cultivated, and the first hybrid cultivars from them are already being grown. *S. columnaris* spontaneously hybridizes a lot in nature. In my nursery there are now plants grown from seed collected in the wild under that name which show characteristics of *S. juniperifolia, S. scleropoda*, and *S. dinnikii. S.× akinfievii (S. columnaris ×S. juniperifolia)* with tea-colored flowers is now widely available. *S.×dinninaris (S. dinnikii ×S. columnaris)* is a beautiful hybrid with dark pink flowers, which unfortunately grows very slowly and is therefore seldom seen in cultivation; some plants so named are actually other *S. columnaris* seedlings. There is a form of *S. dinnikii* with enormous purple blooms called 'Stasek'.

Beautiful as all these Caucasian plants are, though, we should not forget the species growing in our own European mountains. Plants such as *Saxifraga vandellii* and *S. burseriana* are little gems, growing in tufa. In my experience *S. vandellii* is perfectly happy growing in full sunlight. *S. burseriana* 'John Tomlinson' is especially worthwhile, with its bright white flowers on a beautifully compact cushion. *S. marginata* from the Balkan region is also very attractive. *S. karadzicensis* is an extremely slow-growing and compact species that can only be cultivated on tufa. *S. × anglica* 'Winifred' (photo, p. 165) to me will always be the best in its group of cultivars, and is the basis of a number of other beautiful selections. *Saxifraga florulenta* does not belong to this group, but I particularly wish to mention it, because this monocarpic species from the Maritime Alps is extremely rare.

Fairly recently, some magnificent new species were introduced from China, such as *S. pulchra* and *S. lichiangense* and the monocarpic *S. signata*, of a section formerly quite unknown.

The species from the Ligulatae (silver or encrusted) group are totally different plants. They mainly flower a little later than the sections mentioned before, but they have the advantage of tolerating full sun. *S. paniculata* var. *minutifolia* and *S.*

cochlearis 'Minor' are marvelously compact cushions for cultivation on tufa. It is actually essential to grow *S. caesia* on tufa. And then there is *S. valdensis*, another little jewel which immediately attracts the attention of every alpine enthusiast. Slightly larger, but oh, so lovely, are *S. crustata* and *S. callosa*. My personal introduction from the Lake Garda area is *S. hostii* subsp. *rhaetica* 'Dosso Alto'.

Growing Androsaces

Androsace species are one of the most popular groups of alpine plants. Many of them can easily be grown in the open in a raised bed or in troughs. Some species, such as *A. vandellii, A. helvetica*, and *A. hirtella*, need to be protected with a pane of glass in winter, but most of the time many species can be grown successfully without cover. They are propagated by seed or cuttings. The advantage of using cuttings is that plants of commercial size can be raised more quickly. Usually new species can be propagated only from seed, as expeditions do not bring back other plant material for propagation. Species from the Himalaya such as *A. globifera, A.* × *marpensis*, and *A. muscoidea* are widely cultivated and flower freely. *A. delavayi* is not quite so easy to grow, but the white form flowers perfectly. The pink form of *A. delavayi*, on the other hand, is impossible to grow, for some inexplicable reason. A number of beautiful species have been introduced into cultivation from China, such as *A. spinulifera*, *A. zambalensis* and *A. yargongensis*. They all flower very well but are rather difficult to grow. *A. tapete* is fairly easy to grow but hasn't shown any blooms so far. The same goes for *A. selago*, which is quite similar to the species mentioned before.

Androsace cuttings are taken in the summer months. It is best to sow fresh seed the moment it is available to obtain the highest yield of young plants. One of my fondest wishes is to cultivate the wonderful yellow-flowering *A. bisulca* var. *aurata*, but I don't expect this is ever going to happen.

Other Favorites

Next to these three genera, I pay a lot of attention to the cultivation of all sorts of rare plants offered in various seed catalogues. I am especially interested in gesneriads such as *Jankaea heldreichii* and *Corallodiscus* species, but the latter are extremely difficult to grow. Many nurserymen regard growing *Jankaea* (photo, p. 166) as very difficult, but this couldn't be farther from the truth, provided some conditions are met. First, it is essential to use a finely sieved, well-sterilized medium in order to keep moss from forming. Sterilizing is easy in a microwave oven. The compost consists of pulverized sphagnum moss, "young" sphagnum peat, sand, and tufa grit. Plastic containers with transparent lids are used for sowing. The compost is put into the container and then moistened, using sterilized water. The seed is sown on the compost and the lid put on. The seed is not covered. The container is placed in a warm spot, away from sunlight. The seedlings

appear after three or four weeks. You need to start pricking out the seedlings as soon as they can be handled. When you see that the young plants are growing, apply a weak solution of foliar fertilizer. Allow the young plants to grow on for a couple of weeks, then transplant them again. This is the best way to encourage the plants to grow. After about a year you will have nice big specimens that can be planted out in tufa.

Some plants from South America are definitely worth a try. *Bolax gummifera* is a fantastic cushion-forming plant, endemic to Tierra del Fuego and a challenge to grow. *Oxalis erythrorhiza, Oreopolus glacialis*, and the rosulate violets *Viola sacculus* and *Viola dasyphylla* from northern Argentine Patagonia are very beautiful. But as is often the case with South American species, the climate in Holland is so different from that of their home that not much remains of such specific characteristics as compact growth and flower color. Species such as *Alstroemeria spathulata, Calandrinia sericea, Calandrinia colchaguensis*, and *Nototriche macleanii* (photo, p. 167) should be grown much more often. We do have such interesting hybrids of Andean plants such as *Oxalis* 'Malcolm McBride' and *Ourisia ×bitternensis* 'Cliftonville Pink' (photos, p. XXX). In the past two years I have grown young plants of *Laretia compacta* from seed. It forms enormous cushions on the slopes of Chilean volcanoes. Whether they will be a success or a failure in our climate only time will tell.

Editor's note:

The prominence of the genus *Dionysia* in this article and its accompanying photographs, as well as in the show reports in the journal of England's Alpine Garden Society, are likely to make North American readers want to grow these plants. My only experience with them "in the leaf" has been growing *D. aretioides* (photo, p. 162), available from a few specialist nurseries in the USA and Canada, and seeing a few other species or hybrids in the alpine houses of David Hale and Rick Lupp. Knowing that John Lonsdale, now gardening near Philadelphia, Pennsylvania, had been an enthusiast of dionysias before moving from England, I asked him some questions about the genus as it might be considered in a North American context. Why had he decided not to continue with it in his new home? Why are they so neglected by American gardeners, when one would think they could flourish in the Rocky Mountain states? Is it just that nobody can get them here? Is seed rarely available? Or are they essentially a "florist's" plant grown primarily for showing?

Dr. Lonsdale answered: "Those are very good questions that you pose about dionysias and you've addressed most of the reasons they are not grown here. Unlike things like *Primula marginata*, or even *P. allionii*, I can't think of many places in the USA that dionysias would ever do well outside of a controlled environment like a greenhouse/alpine house—maybe overhangs in the canyons of Utah. They are ungrowable any place that has rain or humidity in the summer, and the other issue is availability. Cuttings won't travel here from the UK (I've tried), and seed would be the only route. There appears to be more hybrid seed around in Europe, but still only in the hands of relatively few people. They are difficult from seed unless you have a lot of experience, and when you have decent plants they are still very easy to kill. Someone with time, money and dedication in the right part of the USA could probably get a collection going under glass, but it would be a long-term labor of love. They will never be plants

for anything other than the extreme specialist and in Europe are very much 'show plants' in pots or on the occasional tufa cliff in a high-tech alpine house."

Ger van den Beuken manages a Cultural Centre and grows alpine plants in his spare time. He has been interested in plant life for a very long time. He started out cultivating perennials but became fascinated by high alpine plants as a result of walks in the mountains. Especially interested in high-altitude plants, he devotes special attention to *Saxifraga*, *Androsace* and *Dionysia*. He often gives talks in Holland and abroad and writes articles about the travels he and his wife, Mariet, have made to Patagonia, Tierra del Fuego, central and northern Chile, the United States, China, Turkey, and the mountains of Europe, and about his cultivation techniques.

Correction

In issue 68(2), Spring 2010, there is an error in the captions of the photographs of *Lewisia* hybrids on p. 96. the correct identifications are as follows: upper photo, Muzatko hybrid H106; below left, H128b; and below right, H130b. The numbers are mentioned in the accompanying article, which describes the form and flower color of the various hybrids.

The Lure of the Altai

Panayoti Kelaidis

If *New Yorker* cartoonist Saul Steinberg were to create one of his signature maps devoted to the World of Rock Gardening, the Alps would loom gigantic in the foreground (much like Manhattan from a New Yorker's perspective), with the Mediterranean bulb lands (Greece, Spain, and others) in the middle ground. Across the Hudson River's equivalent ocean would lurk a few islands labeled "Himalaya," "China," and perhaps "Japan," with a more distant island called "North America (they have *Lewisia* and *Phlox*)" and maybe a tiny island "South America (rosulate violas, silly)" and a hint of "South Africa (lots of funny bulbs")" in the far, far distance.

A few articles addressing Central Asia and focusing almost exclusively on bulbs have appeared in the *Bulletin of the Alpine Garden Society* (lately *The Alpine Gardener*) over the decades, many of them the product of a wandering amateur and retired admiral, Paul Furse. For the *Rock Garden Quarterly,* Josef Halda wrote a memorable series of evocative pieces illustrated by Jarmila Haldova's fabulous line drawings in the 1960s and 1970s. One or two more articles here and there—and rather superficial ones—and that's been it for Britain. The record in the *Rock Garden Quarterly* is almost eerily silent on the subject of Central Asia.

Central Asia holds a lion's share of the world's high places, and the widest swath of alpine vegetation on earth aside from the arctic tundra. The region I am referring to encompasses Mongolia in the east and stretches to the Urals and Caucasus in the west: nearly five thousand miles of mostly mountain and high-elevation steppe, an area almost twice the breadth of the entire continental United States. The Caucasus and Himalaya and Pacific highlands (Japan, Korea, and the Manchurian mountains) hem Central Asia in, overshadowing the continental mountains enormously in the literature, but also constituting real rain shadows that leave the intervening mountain ranges considerably drier, and therefore less interesting or practical for gardeners in maritime regions.

For someone like myself who has worked a lifetime in a semiarid environment, Central Asia beckons for many reasons. Much of this area is extremely close climatically to the Rocky Mountains. The parallels also extend to vegetation: we share a great deal in the way of families and genera.

William A. Weber, Professor Emeritus of Botany at the University of Colorado in Boulder, has written repeatedly about the close climatic and ecological parallels between the Rocky Mountains and the Altai. When you consider that these two continental mountain regions are separated by twelve time zones (in other words, they are on opposite sides of the globe), the parallels become all the more astonishing. Although the purpose of the trip described in this article was to lay groundwork for a collecting expedition in 2010, the impetus for us was to see just how similar or different these two distant floras really are.

The Altai Range straddles the border region where Kazakhstan, Russia, China, and Mongolia converge. The Altai is near the center of the Asian continent, nearly as far from the Pacific Ocean as from the Atlantic, and equidistant from the Arctic and Indian oceans. The Altai comprises nearly 50 smaller ranges, mostly east-west tending, often separated by steppe or near desert, so that each range seems to have a few plant specialties. The northern reaches of the Altai border the vast Taiga biome that stretches across Eurasia. Its southern foothills grade into steppe grassland and borderline desert. With the substitution of a few proper nouns, much that I have just said about the Altai could be applied to the Rocky Mountains of Colorado; and the impetus for undertaking this trip for us was to observe parallels and contrasts between these two strongly continental mountain regions.

The trip was planned by Greentours, a British travel organization that designs many tours for the Alpine Garden Society. There were three participants: myself and Michael Bone from the Denver Botanic Gardens, and Alan Wilson, a retired professor from the University of Leeds in York. We spent roughly two weeks in Kazakhstan, most of it driving from Ust-Kamenogorsk eastward several hundred kilometers almost to the Russian border over several mountain ranges, camping and staying at rustic accommodations at relatively high elevations, often climbing to treeline on day hikes. The last week of the trip included a flight from Ust-Kamenogorsk to Olgii, the largest town in northwesternmost Mongolia, whence we drove 200 kilometers and then spent five days hiking across a substantial mountain range near the Chinese border with a picturesque train of three camels, two horses, and an entourage of local assistants.

This isn't the place to enumerate the hundreds of choice alpine and steppe climate gems we were lucky to find along our route. Suffice it to say that the Kazakhstan Altai has grand floral displays equal to any we have seen elsewhere in our travels on five continents. I have been mystified that there are not more images of the Altai posted on websites, nor more books showing the fabulous displays of endemic plants you can encounter there. Three endemic blue-flowered plants in particular paint amazing canvases at the highest elevations in most areas we visited. *Dracocephalum grandiflorum* is probably the showiest member of that lovely group of labiates, with velvety cobalt-blue flowers crowding high mountain meadows with their intensity. The blue Altai columbine, *Aquilegia glandulosa* (photo, p. 168), vies with our paler native Colorado columbine (*Aquilegia caerulea*) in masses of bloom. The Altai species, however, is somewhat nodding and deep blue, reminding us of blue poppies in the color's intensity and purity. The third of the great blue blossoms was *Gentiana grandiflora* (photos, p. 170 and back cover). This remarkable gentian

closely resembles the trumpet gentian of the Alps (*Gentiana acaulis*), but rather than forming wide mats like its European congener, the Altai gentian makes dense tufts—although these are commonly studded with a dozen or more flowers. It seemed to us there was greater variability in flower form and color than one would usually find in the Alps. The Altai gentian grows as a distinctive rosette, with trim clumps of basal foliage forming distinctive nearly cruciform, overlapping rosettes unlike those of any European gentian. Although we saw hundreds of other spectacular wildflowers, these three blue wonders are among the most stunning of their respective groups and should motivate any flower lover to make the trek to this remote and truly untouristed region.

The alpine heights were full of other treasures for rock gardeners: finding *Claytonia joannae* (photo, p. 169) was a high point for me, since it recalled our bigroot spring beauty (*C. megarhiza*), so far from home but growing in a similar alpine environment. Another surprise was *Cerastium limoniifolium,* with striking flowers almost 2 inches (5 cm) across: they must be the largest in the genus. I had glimpsed *Biebersteinia odora* (photo, p. 168) briefly in autumn color in September during an earlier trip in Pakistan, but finding it in full glorious bloom in Mongolia was a great delight. This small genus of pinnate-leaved plants has confused botanists, who often place it in its own family, although it is usually classed among the Geraniaceae. The pungent foliage and habit reminded me of *Polemonium brandegei*, an example of convergent evolution; the latter grows in almost the same habitat and looks very similar in the Colorado Rockies. *Bergenia crassifolia* and the ubiquitous *Clematis sibirica* in the wild were reassuringly easy for us to identify, but when we found a small, huddled *Arnica* on one alpine ridge, we were stumped and have yet to key it out.

The northern reaches of the Altai are technically part of Siberia: in fact, they contain the highest point in Siberia, Mt. Belukha at over 17,000 feet (5182 m). Most of the mid-elevation forest of the Altai mountains is equivalent to the Canadian or Hudsonian zone in the Rocky Mountains. Just as in Colorado and the Intermountain West, the forest at this latitude is not terribly rich in species: Siberian pine (*Pinus sibirica*) is by far the commonest pine, with a very few populations of Scots Pine (*Pinus sylvestris*). Siberian larch (*Larix sibirica*) is abundant from the lower foothills all the way to treeline in some areas. The other most conspicuous and ubiquitous tree is the European weeping birch (*Betula pendula*), which is the only birch commonly planted in gardens in Colorado. Unlike that of the Tien Shan range much farther south and west, the flora of the Altai is largely what phytogeographers would characterize as part of the Holarctic Kingdom of plants, and moreover the Circumboreal province of this largest floral kingdom—that is, more or less the same as Alaska, or the northern Rocky Mountains which they so resemble. The Tien Shan still has a few circumboreal elements but is primarily inhabited by plants of the Irano-Turanian province.

By contrast, the southern foothills of the Altai grade into steppe grassland and borderline desert (ultimately, the Gobi). The state and condition of the steppe varies enormously between Kazakhstan, where nomadism has been discouraged and the landscape was surprisingly pristine, and the Mongolian Altai, which was utterly hammered by overgrazing.

Throughout the trip we kept encountering plants more or less identical to those in the Rockies. We found *Pulsatilla patens* (very much like our native pasqueflower) above treeline in Mongolia; although not present in the published flora of that country, it is well known everywhere else in Central Asia. *Linum altaicum* looked suspiciously like *Linum lewisii,* and the two would undoubtedly be lumped together by some botanists. *Pyrola rotundifolia* was common in woodlands wherever we explored, the same species of "shinleaf" common in the Rockies. We once thought *Aster alpinus* grew only in the Alps, but here it was in montane meadows as well as tundra, and in fact it is even found in the Rockies: we rediscovered it in the 1990s in Colorado within sight of Denver on James Peak. Just as we began to feel at home, however, a typically Eurasian *Dactylorhiza* would appear; we found one meadow with hundreds of the common central Asian *D. umbrosa* (photo, p. 171) jostling with *Primula algida* (photo, p. 171).

Finding plants that we know well in our gardens, like rhubarb and peonies, growing wild is always a thrill. Each mountain range seemed to harbor its own rhubarb, and many are considered threatened because they have been overharvested by humans for millennia. *Rheum wittrockianum* is the specialty of the Tien Shan, although *Rheum altaicum* is very similar in the Altai. Although both species are protected, we saw many people selling stems of wild-harvested rhubarbs by the roadside.

A highlight of the trip was stumbling on *Delphinium elatum*, the wild ancestor of the giant garden delphiniums, growing in vast swaths of thousands on the Kalbinskiy hills not far from Katon Karagai in Kazakhstan. Few people realize that this treasured garden plant is found primarily in Central Asia, and that the wild ancestor is indistinguishable from the garden hybrids in flower size and plant stature. We were even more shocked to realize that it was not a plant of lush mountain streamsides, like so many of our tall western American delphiniums, but grows on open, dry steppe. It is obvious that Europeans have selected forms that tolerate and even demand wetness. We think these wild delphiniums would adapt far more easily to our hot and dry Western gardens because that's how they grow naturally—a good reason to return in seed season!

Not far from the delphinium we found a wonderful veronica I had never even heard of: *Veronica multifida,* with deeply cut leaves and a graceful habit. Most were a pleasing lavender, but it is always fun to find a white form. It was strange to find a typically Mediterranean genus like *Onosma*, here represented by *O. songaricum*, a white-flowered species, as well as thymes at all elevations from steppe to highest tundra. *Thymus roseus* is a particularly showy plant, growing in an almost arctic steppe environment (photo, p. 172); it should be bone-hardy in much of North America. *Hypericum* is represented by *H. elongatum*, surely the showiest species I have seen in the genus, which would make a terrific addition to the xeriscape (unirrigated garden). *Gypsophila* is another important Mediterranean genus widespread in Central Asia. We were lucky to find *G. sericea*, a very rare endemic of the Altai. More to be expected was the East Asian genus *Patrinia*, which we encountered in the very dwarf form of *P. sibirica*.

Dracocephalum is essentially a Eurasian genus, concentrated mostly in Central Asia. There are more than a dozen species of *Dracocephalum* in and near the Altai.

The species that we were especially thrilled to find in nature was *D. bungeanum* (photo, p. 171). It forms dense mats of gray, scalloped leaves almost obscured beneath the showy clusters of bright lavender flowers. It is widespread on alpine screes above treeline in Mongolia and also on rocky outcrops in the very dry steppe. Some other steppe finds included an intriguing lavender *Scutellaria* (photo, p. XXX) whose species we have not determined yet. Just as Reginald Farrer wrote, *Leontopodium* is everywhere in Central Asia, including the dusty steppe. We encountered mostly the extremely variable *Leontopodium ochroleucum* at all levels, but also the elegant *L. fedtschenkoi* (more like *L. nivalis*) in the Tien Shan (photo, p. 173).

After flying from Mongolia back to Kazakhstan, we paused a day in Almaty (formerly the capital and still the largest and most bustling city in the country) and drove one day up to treeline in the Tien Shan. This tantalizing day was filled with hundreds of new plant finds and rich impressions: the Tien Shan is a thousand miles south and west of the Altai and harbors many Himalayan elements, as well as many more endemic plants than the boreal Altai. A literal high point for us was seeing one of the tallest of the foxtail lilies, *Eremurus tianshanicus*, growing alongside the giant elecampane (*Inula gigantea*). We have grown the giant elecampane in Denver, and finding a familiar garden plant in the wild is always a treat, but the giant foxtail lily was even more gratifying. *E. robustus* is the largest and last species to bloom in Denver, usually in mid-June. The Tien Shan eremurus, however, towered above *E. robustus,* which was already in seed alongside it. We suspect that if we can obtain this species, we can extend the eremurus season by a month and add a fabulous new spire to our summer bouquets.

In this short article I cannot begin to describe the innumerable treasures we saw just in this one day. A few of its highlights included finding our first tulip in bloom, *Tulipa heteropetala* (photo, p. 174). We had actually found some seed of this same tulip in the Altai, but here it was growing above treeline, and its nodding, *Fritillaria*-like flowers hinted that it might be a rather primitive tulip, a sort of missing link to lilies. We were thrilled to find our first *Cortusa* in the wild, *C. broteroi,* growing well above treeline. *Viola tianshanica*, another local specialty, occurred here and there, with huddled blossoms and trim habit. *Androsace akbaitalensis* approached a pale yellow in some individuals. I was astonished to find *Smelowskia calycina* growing there, looking much as it does in Colorado. Nearby was a really stunning local specialty, *Callianthemum alatavicum* (p. 169), which reminded me of European *C. kernerianum*, only perhaps a bit showier than the latter. Rather than the typically clumping (and frankly rather unattractive) *Sibbaldia procumbens* of the Rockies and Europe, here *Sibbaldia cuneata* (p. 173) made dense, wide mounds, well worth trying to grow in a rock garden. As we climbed to a higher ridge, we stumbled on a place where snow had lingered and the only lilac-flowered *Trollius, T. lilacinus* (p. 174), was still in bloom. From there on up the alpines grew choicer and choicer. Perhaps I shall recap the cushions and crevice plants of this last ridge in another article, for there is just too much to share here.

Now that the dust from this trip has settled, it is obvious to us that tourism in the parts of Central Asia we visited is essentially nonexistent. Of course, so

are the amenities that serve tourists. This is not a destination for the faint of heart. For seasoned travelers, however, the pleasure of visiting an area where you are apt to be the only foreigner the locals may have seen that year is compensation enough.

Fortunately, both Kazakhstan and Mongolia are politically and economically stable, and it appears they will continue to be so for some time to come. Alas, both countries are essentially run by dictatorships, although the police and army presence was minimal in both countries, considering their proximity to both China and Russia. We did not encounter the roadblocks and military presence we might have expected, or as I experienced in Pakistan as our party approached the border with India during a 2001 visit.

The Kazakh people comprise the largest minority in both Kazakhstan and western Mongolia. Their language belongs to the Turkic family, and they are still largely nomadic in Mongolia. Although most are Muslims, there was a palpable difference from the cultures of other Islamic countries I have visited: for one thing, Kazakhs appear to enjoy liquor, which flowed freely everywhere we visited, and women were far more empowered than I have observed in more conservative Islamic countries.

Russians comprise a very large minority in this region, and there are a dozen or more other ethnic groups in Kazakhstan, where sizable German, Ukrainian, and Korean minorities doubtless help foster the cosmopolitan atmosphere that surprised us in the heart of Asia. In fact, every ger (the local term for a yurt) that we saw had a satellite dish, and the young men and women we encountered wore jeans and other stylish clothes and could have walked around a major city anywhere in the United States without standing out as foreigners. No doubt they watch American TV programs at night in their gers.

But most of all, we encountered hundreds of striking ornamental plants, many of which will undoubtedly enrich Coloradan and other American gardens in future years, once they undergo thorough testing for their potential and screening to be sure they are not invasive. We know that Central Asia can learn a great deal from America about wildlife management (we saw no wild mammals larger than a marmot) and touristic development. The landscape is so beautiful and the human history and culture so interesting, I have no doubt that this will one day be a great magnet for visitors. We can only hope that the charm and wildness can be preserved in the face of the inevitable onslaught of modernity.

We are grateful to Greentours for organizing this wonderful trip. Special thanks are owed to Vladimir Kolbintsev, our indefatigable, invariably upbeat and enormously knowledgeable guide. We also thank Plant Select® for the grant underwriting the expenses of the trip.

Panayoti Kelaidis is Director of Outreach at the Denver Botanic Gardens, where he established the famous Rock Alpine Garden. He has been a leading contributor to this journal for several decades and is a very popular lecturer to rock and general garden groups in North America and beyond. His frequent plant-hunting expeditions to the far corners of the world have brought scores of choice introductions to American gardens.

My Early Days at Birch Farm Nursery

Rex Murfitt

To a rock gardener, the family name Ingwersen is inextricably associated with fine alpine and rock plants. Walter Edward Th. Ingwersen opened Birch Farm Nursery at Gravetye, East Grinstead, West Sussex, England in 1927. The nursery operated from its original location until early in 2009, when Michael Paul Ingwersen—Walter's youngest son—and his wife, Mary, reluctantly decided it was time to retire. A sale at the nursery was arranged in January 2009 that included all the remaining plants, some of the alpine houses, and the frames. Even the valuable rock from the dismantled gardens was sold. Finally, the land and the well-maintained and modernized Elizabethan farmhouse were sold. It was a very difficult time for the family and for many who knew and cared for the place.

As so often happens when a popular business or person withdraws from daily contact, the name soon disappears. Furthermore, old-timers such as myself are reluctant to dwell on them, believing (often erroneously) that everyone else is equally familiar with the history. So we remain silent rather than run the risk of becoming bores.

I have been a trough garden fan for a long time, and it was only recently that I came to be asked why I like them. Until then, it had never crossed my mind to consider why they appeal to me so much. My first sight of trough gardens was back in 1948, when I first visited Birch Farm Nursery, then operated by Walter Ingwersen and his son Will Ingwersen. Troughs (photo, p. 175) were part of the display in the nursery, which was generously landscaped with rock gardens of the famous weather-worn Westmorland limestone, as well as some tufa and other features of soft golden-yellow local sandstone. All the rock gardens were planted with a riot of alpines, kept both as stock plants for the nursery and to tempt visiting customers. I was immediately moved by the rows of solid, foursquare, antique troughs and sinks. The wonderful scale of the plants and rocks used in the miniature landscapes is still fresh in my memory. Early makers of trough gardens set out to create intimate segments of mountain landscape, portraying the spirit of the mountains and the beauty of the alpine flowers.

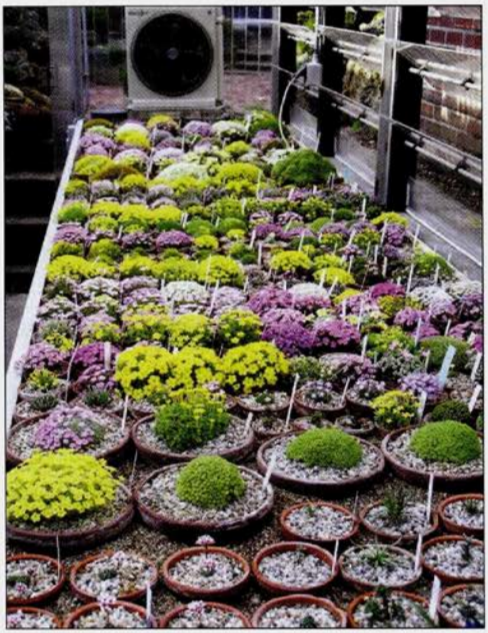
The purpose of my visit that day, 62 years ago, was to meet with Walter Ingwersen to see if he would employ me as a journeyman in the nursery. I consider

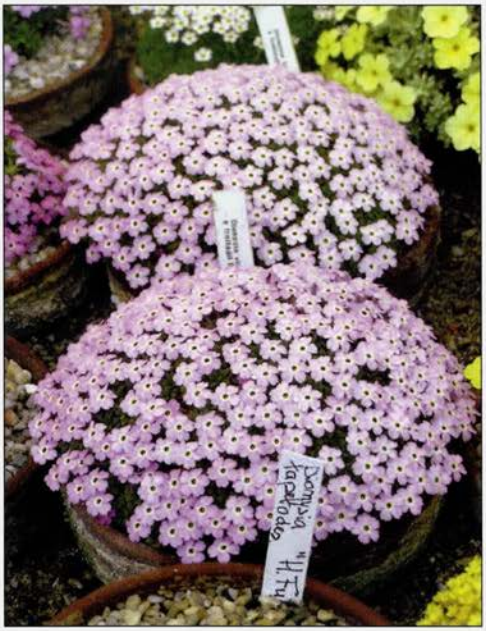
View of Ger van den Beuken's garden and alpine house in the "lowlands" (p. 147). (Photos, G. van den Beuken)

Androsace barbulata is one of many members of the genus Ger grows (p. 151).

Two views of Ger van den Beuken's *Dionysia* collection, showing a powerful fan providing the constant air circulation these plants need (p. 148).

Below right, *Dionysia aretioides* is one of the few species available to North American gardeners.





Gems in Ger van den Beuken's collection (p. 149):
above left, *Dionysia afghanica*;
above right, *D. viscidula* × *freitagii*;
left, *D.* 'Ewesley';
below left, *D.* 'Franceska'.

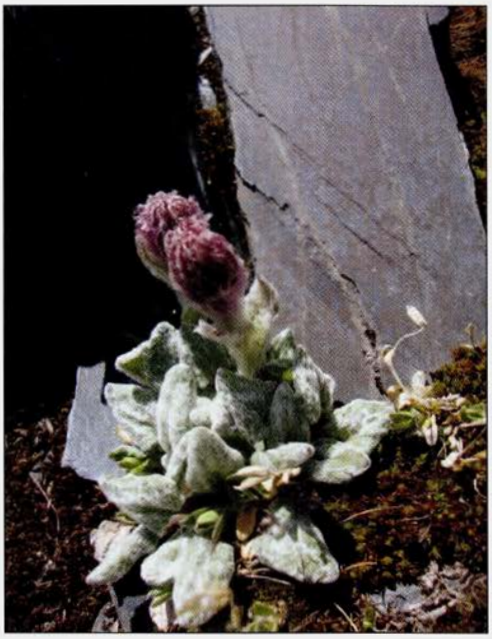
More *Dionysia* hybrids in the alpine house of Ger van den Beuken (p. 150):
above left, 'Annielle'; above right, 'Dompfaff'; below left, 'Eric Watson'; below right, 'Gothenburg'.

Favorite saxifrages in Ger van den Beuken's collection (p. 150) include *Saxifraga* ×*anglica* 'Winifred', above, and *S. stolitzkae*, below.

Silvery rosettes of *Jankaea heldreichii* (p. 151) cling to the shady side of a tufa boulder in Ger van den Beuken's rock garden in the Netherlands.

Three plants of South American origin or ancestry now growing in the Netherlands are *Nototriche macleanii*, above; *Oxalis* 'Malcolm McBride', below left; and *Ourisia* ×*bitternensis* 'Cliftonville Pink', below right (p. 152).

An expedition to Kazakhstan and Mongolia was full of colorful meadow flowers, including *Biebersteinia odora* (above, p. 156), *Aquilegia glandulosa* (below left, p. 155), as well as tiny high alpines like this *Arnica* species from Mongolia (below right). (Photos, P. Kelaidis and M. Bone)



Pristine beauties of the Altai and Tien Shan: above left, *Callianthemum alatavicum* (p. 158); above right, *Cerastium* sp. in Mongolia; below, *Claytonia joannae* (p. 156).

The "great blue beauty" of the Altai, *Gentiana grandiflora* and its meadow habitat (p. 155).

Above left, *Dactylorhiza umbrosa* (p. 157); above right, *Primula algida* in the Tien Shan (p. 157); below left, *Viola altaica* color forms; below right, *Dracocephalum bungeanum* with silvered leaves (p. 158).

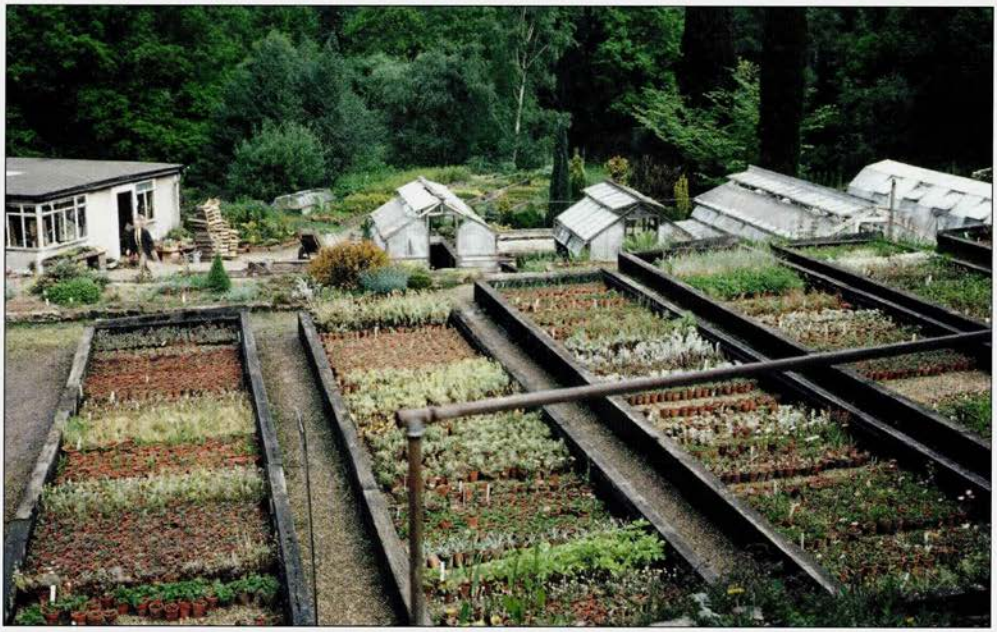
Thymus roseus carpets alpine steppe in the Altai (p. 157).

Two Central Asian cushion species: above, *Leontopodium fedtschenkoi*; below, *Sibbaldia cuneata* (p. 158).

Above left, the curious *Tulipa heteropetala* in the Tien Shan (p. 158); above right, *Trollius lilacinus* (p. 158) in snowmelt scree. Below, a *Scutellaria* species seen in Mongolia.

Terraces and alpine houses at Ingwersens' Birch Farm Nursery (p. 160). (Photos, Rex Murfitt)

The inspiring trough collection at Birch Farm in spring bloom.



Plants held for sale in alphabetically arranged frames at Birch Farm (p. 184).

Author Rex Murfitt and Birch Farm nurseryman Paul Ingwersen (p. 184). (Photo, Adrian Young)

Birch Farm held plants of great age. Above, *Saxifraga cochlearis* 'Minor' in a tufa boulder, of which Rex Murfitt writes, "I have known this rock for nearly 50 years."

Helichrysum coralloides on tufa, still going strong into 2009.

In the search for the pink May apple, Jim McClements grew and photographed *Podophyllum peltatum* forma *deamii* (above) and *P.* ×*inexpectatum* (below, p. 192).

Award-winning photos by Pál Kovács of Hungary include *Colchicum hungaricum* (left) and *Hepatica nobilis* (below, p. 194).

Pál Kovács photographed *Linaria alpina* (above) and *Ranunculus glacialis* (below) in the Alps to gain awards in class 1 of the 2009 Photo Contest (p. 194).

myself fortunate to have learned the trade of nurseryman under the old apprenticeship system. We used horticultural methods and skills that, sadly, no longer can survive under today's hectic circumstances. I had already served a four-year apprenticeship in a long-established general nursery in Northampton, where I spent time in each department being trained by the skilled tradespeople.

When I recall the effort it took to get to Birch Farm, I am sure I would not seriously consider repeating that journey without a car, even today. Mind you, the trains were a lot better then. I went from Romford Essex to London, changing there for East Grinstead Sussex and again for Kingscote station. Arriving there, I was greeted with just a few railway workers' cottages and nothing else: even for England, it was extremely isolated. There was nothing for it but to set out on the long mile and a quarter's walk to the nursery.

Luckily, I did not have to retrace my steps back to the station, as I was accepted as a student and had the unbelievable good fortune to be driven about locally as they searched for room and board for me. This was unsuccessful owing to the scarcity of households in the area, but Will drove me back to the station with a secure offer of room and board in the home of Walter, his wife, Constance, and their youngest son, Paul.

Walter E. Th. (for Theodore) Ingwersen was born in 1888 in Hamburg, Germany, to Danish parents. Embarking on his life's work as an alpine plant nurseryman while still very young, he studied in European botanic gardens, nurseries, and large private gardens. I have listened to many hours of stories of his experiences and the famous people he associated with. During this time he traveled widely in the mountains of Europe, which increased his love of delightful little rock plants and his great knowledge of their cultural requirements. I was particularly fascinated by the tales of plant hunting with King Boris of Bulgaria. On these occasions transportation was provided by royal vehicles and lots of porters, and sometimes lodging was in royal mountain hunting lodges. Imagine exploring the mountains all day and returning to dine and rest like that! One of his expeditions took place when the king was on a hunting trip, and the two parties accidentally met on the trail. The king, learning that they planned to camp out that night, would not hear of anything less than accommodation at a nearby monastery; he gave them a note to the abbot, requesting the royal apartments for the overnight guests.

Just before World War I, Walter Ingwersen emigrated to England, where he settled down and married. He opened an alpine plant nursery in West Croydon, near London. But the coming of war brought him problems, not least a brief internment during 1914 resulting from a misunderstanding about his nationality, from his having been born in Germany. Upon his release, he found that the economics of wartime made it impossible for the nursery to survive. He took the position of manager of the Alpine Department at the Royal Horticultural Society Gardens at Wisley for the duration of the war. Although it must have been a challenge to care for such a large and choice collection of alpines under wartime conditions, I never heard him speak of it.

When the war ended in 1918, Ingwersen entered into partnership with Clarence Elliott in the early days of the well-known Six Hills Nursery at Stevenage in

Hertfordshire. This partnership eventually dissolved, and Ingwersen, together with Gavin Jones, opened a new nursery at Letchworth, also in Hertfordshire; sadly, this partnership too was of short duration. I don't know why the partnerships did not persist, but certainly such knowledgeable, skilled and ambitious men would have strong personalities and opinions. All I know is that it was not wise to mention either Clarence Elliott or Gavin Jones in the Governor's presence. Walter Ingwersen was addressed as "the Governor" by the staff; it was a title of respect used by British workers, and he enjoyed it.

In the mid-1920s, while visiting William Robinson at his estate at Gravetye (or, as some say, during a show in London), Walter Ingwersen mentioned his wish to start another nursery, saying that he was looking for a house with enough land for it. Robinson offered him the tenancy of Birch Farm, one of several farms on his estate. Gravetye records show Walter and his family there in 1925, and in two years the nursery was officially established. Gravetye Manor is an Elizabethan house of great beauty and charm, built in 1598 of the local golden sandstone. The Birch farmhouse is of the same period, situated high among undulating meadows and near a pine plantation. The nursery site had to be terraced to provide level sites for coldframes and alpine houses, plus a few raised beds—wooden open frames to house the hundreds of potted plants.

The hillside site made for an attractive setting, even a touch of mountain village atmosphere, enhanced with rock gardens and alpine plants at every opportunity (photo, p. 175). As a working site, however, it definitely had disadvantages. Everything, including all the plants, had to be dragged up and down the hill.

As the years passed, new alpine houses were added. Several accommodated the more difficult plants that required the luxury of the bench. One was set aside for rarities such as Aretian androsaces, raised from seed and grown in tiny containers known as "thumb pots." A key to their culture was that the pots were plunged in sand. Mention of androsaces recalls the "bunnery," and you can easily imagine what would be found there. What an education a student could find there among the specimens of alpine buns! One house was populated entirely with European primulas. The largest and perhaps the grandest house contained a huge range of wonderful plants all grown in pans, its benches a riot of color.

When lewisias exploded on the gardening scene, particularly from the work done in Europe and Great Britain, unbelievably brilliant colored hybrids were arriving on the show benches. I can recall the original introduction of Jack Drake's Sunset Strain. In North America, enthusiastic gardeners were searching the Siskiyous and other western mountains for *Lewisia* species, introducing one after another. Back in the 1950s there was a limited number in cultivation, but Birch had one house devoted to them. One very early hybrid, introduced by Dr. Paul Giuseppi, is the salmon-red 'Trevosia', named for his garden in England and still in cultivation in the United States. Many years later, I visited Birch and will always remember George Henly producing a lewisia hybrid with brick-red flowers that had been found on the nursery. He told me it had been named 'George Henly' and had won an Award of Merit, and then he gave it to me to take back to Canada.

At some point I got it into my head that the nursery was called "Birch Farm Hardy Plant Nursery." Accurate or not, this is certainly applicable, because when I first worked there they had no electric power. Every plant was grown without artificial heat, although there was lighting from Tilley lamps (a Coleman-style pressurized gas lamp). It was amazing what George accomplished working under those conditions. The alpine houses were his exclusive domain, his first priority in the morning and his last at night. All the watering—with cans—received his personal attention. I am sure this individual attention was a major factor in his success with some rare and tricky plants. To watch his management of air circulation and temperature regardless of the time of year, without any of the technology we have today, was truly remarkable. He would adjust all the ventilators from the top ridge to the sides depending on wind direction, not forgetting the doors. Moreover, in those days the old English fogs were still frequent, so he had narrow ventilators in the walls below the bench surfaces; after closing all the glass ones, he would open the lower ones so some air could enter the house, yet the fog's moisture would not contaminate the foliage.

Henley started working for the Ingwersens as a young man in 1927 and continued until he died there in 1982, over 50 years. Will Ingwersen wrote in tribute to him: "With the passing years his skills and abilities grew and his increasing knowledge finally earned him the position of nursery manager, in which position he faithfully served three generations of the Ingwersen family." In 1962 he was further recognized by the Royal Horticultural Society when he was made an Associate of Honour, a distinction that can be held by only one hundred recipients at any one time.

To me Henley was the consummate countryman, skilled in many rural crafts. It was something to work with him and learn the art of hedge laying, or building a drystone wall. Of course, his main function was the daily running of the nursery, which he did effortlessly. He was on top of every seasonal operation: propagation, potting, planting, packing, and shipping. I cannot recall anything that disturbed his calm, even when a neophyte would mix up a batch of potted aubrietas or mossy saxifrages (this often happened, and always with varieties that were hard to distinguish out of flower). He would wade in and sort them out quickly by recognizing subtle leaf variations. Many well-known, successful horticulturalists in the world today will attest to his skill and patience.

Walter Ingwersen's oldest son, Will, played a major role in the continuing development and became the official general manager eventually. Like his father, he had extensive training with alpine plants, begun at Six Hills Nursery under the eagle eye of Frank Barker, the foreman, who did not spare young Will his share of the lowly jobs. Will also spent time honing his skills in nurseries and gardens on the Continent, and managed to get in a considerable amount of travel in the mountains. Never talkative, he seldom mentioned his adventures, but when he did, it was worth hearing. Throughout my time at Birch Farm, Will managed most of the daily business and physically worked on the landscaping contracts, traveling extensively and often absent for a week or more. He was also heavily involved with the RHS, serving on various committees, as well as with the

Horticultural Trades Association. On top of all this, he served in several key roles with the Alpine Garden Society as far back as 1938—on committees, then becoming editor and eventually president. He still managed to find time to write numerous articles and several books on alpine plants.

During his long life, Will Ingwersen won many prestigious horticultural awards. Particularly notable is the RHS's esteemed Victorian Medal of Honour (V.M.H.), which he received in 1966. His father had been presented with the same award some years earlier. The V.M.H. is limited to 63 living members (the number commemorates the years of Queen Victoria's reign), who are nominated by RHS members from among British horticulturists resident in the UK.

In 1986 Will handed over the directorship to Michael Paul, known as "Paul," Walter's youngest son (photo, p. 176); Will remained as consultant until his death in 1990, aged 85. Paul studied at the nursery and had taken an active role in daily operations for most of his life. I worked with him quite often and benefited from his experience in many vital facets of the operation. This was a difficult period for the industry as a whole, and Birch Farm was no exception. Gone were the days when a customer could leisurely tour a nursery, finally purchasing a few plants. Paul, ably supported by his wife, Mary, had to embark on a marketing program with a much more direct sales approach.

They achieved this partly by attending county agricultural shows, as well as the famous Chelsea Flower Show and later the Hampton Court Show in London. Along with Martyn Flint, they maintained a demanding schedule, traveling around Great Britain to shows that provided space for a display of alpine plants and then space to sell directly. Paul is an expert showman and good salesman and has received much recognition for his work over the years. I had the opportunity to observe him in action during one holiday visit to England, when my wife and I traveled with him in his caravan (travel trailer) to camp on the grounds of the county show at Ipswich.

Back when I worked at Birch Farm, it supplied a large number of plants by mail order as well as a pretty healthy amount to customers who came to the nursery. Most of the plants were pot-grown so they could be easily transported with minimal root disturbance. We used 2-, 3- and sometimes 4-inch clay pots, and with hundreds of varieties listed, that amounted to a huge number to manage. The potted plants were stored outside in open wooden frames (photo, p. 176), in alphabetical order, which speeded up collecting them for shipping. It also made for light-hearted joking: "Where is 'Linda Pope'?" "In the same bed as the 'Celtic King'."

Whenever I reminisce about those days, "show day" comes to mind. More precisely, the day before the show, when we prepared the plants for exhibition. George Henley made the initial selections from the alpine houses, and later the Governor and Will would consult over the final choice. Most specimens in the main body of the exhibit were special plants grown for showing, or new introductions entered for committee assessment and possible awards. Staff members then carefully washed the outsides of the pans, taking great care not to dirty or damage the leaves and flowers. George then immaculately groomed the plants,

removing dead or unsightly foliage, flowers, and broken stems. Once satisfied, he applied new top dressing of stone chips.

Next, the large wooden packing crates, custom-built by George, came out of storage and were religiously cleaned of old newspaper and spilled soil. Dust was banished. These crates were extremely efficient, containing the most pans possible and allowing plenty of headroom for the flowering stems of taller species. The lids were perfectly fitted and sturdy so that the crates could be stacked in the vehicle.

Once the major specimens were dealt with, the staff roamed the saleable potted plant stocks, picking out those in full bloom. These would be used to fill in around the larger plants in the display. These smaller plants too got a rigorous washing and grooming. The plants in the Ingwersen exhibit at the fortnightly RHS shows were usually displayed in their pans on a large table-like staging set up by the RHS staff. Only for special shows would a model rock garden be built and the pots plunged to their rims in peat moss "soil."

It was exciting the first time I went to London to help set up the show and work as a sales assistant. Not until arrival at the hall did it dawn on me that I had heard no planning sessions, no sketches had been made, and there were no numbers or instructions. George Henley and the senior staff member, Miss Arabella "Araby" McClintock, were so familiar with shows that little planning was required. Sometimes Paul would do the set-up. At that time no cash sales were made at the shows; all purchases were made by booked orders to be either shipped or picked up at the nursery.

Then came the realization that soon I would be facing the public in RHS Hall at a famed exhibitor's tables. It was time to learn the names of all the plants we displayed, for it would not do to be found wanting by a knowledgeable customer. The day went well, and I was able to answer questions and give advice. I managed to book a huge order from an elderly lady who was full of enthusiasm. Unfortunately, reality soon intruded: a smartly uniformed chauffeur quietly approached me and asked if I had just booked an order for Lady So-and-so. When I confirmed this, he advised me to disregard it and tear up the order form. Apparently this was quite a regular thing on the flower show circuit—another lesson learned in the life of a would-be nurseryman.

Setting up a show was hard work and a long day, and it always turned out to be hurried. Even the best-run shows can be a melée, with every company striving to get their work done amid the inevitable congestion. The really big names employed staff who were professional show men and women. All they did was move from show to show, and the plants and flowers were shipped to them directly from the nursery. After a long, tiring day, the lucky ones got to go home at closing time. Those who remained were faced with dismantling, packing up, and loading the truck for the long drive home. Anyone familiar with a show circuit will know that packing is tougher than the set-up because everyone is tired and anxious to get on the road. Some things never change.

But the shows were not all business. There were enjoyable experiences with the visitors and other nurserymen. On one occasion, a visitor was enjoying the

cyclamen on our exhibit, and I chatted with him, mentioning the cyclamen I had in my little rock garden at the nursery. I mentioned this to the Governor when I returned home, asking who this man was. I learned that he was the great alpine gardener C. C. Mountfort, M.A., F.L.Sa., founding member of the Alpine Garden Society and a longtime editor of its bulletin. The Gov suggested I write to him about cyclamen, his particular favorites. In due course I received a letter and a parcel from him containing some very choice cyclamen species.

Rex Murfitt is one of the deans of rock and alpine gardening in North America. His garden in Victoria, B.C., is often visited by other gardeners who admire the alpine house (with a lovely collection of saxifrages) and extensive trough collection as well as many plants grown on the surrounding rock garden. In New York state, visitors can view the alpine houses, troughs, and raised beds he created at Stonecrop when he worked there for Frank Cabot. He has written numerous articles and the book *Creating and Planting Alpine Gardens*, and with Joyce Fingerut coauthored *Creating and Planting Garden Troughs*, both available from the NARGS Book Service. His expertise in exhibiting alpine plants has contributed greatly to the success of shows in British Columbia.

Self-Portrait in the Rock Garden

Robin Magowan

I am a writer who by happenstance became a rock gardener. A limestone outcrop roughly 12 by 12 feet in extent and 6 feet high loomed a few feet from the studio that came as part of our property, an abandoned farm below the Taconic Range of the Berkshire Hills in Connecticut. But I didn't have a clue how to convert it from a poison ivy-covered mess, let alone what a tribe of tiny, rock-hugging plants might require in siting, soil, and drainage. The only mountaintops I knew were the ones I traversed on skis. I remember how taken aback I was at one of my first NARGS meetings when one of the officials announced, "We're all gardeners here." Speak for yourself, I thought. I may have fiddled over the years in different places with gardens, but I would never have called myself a gardener. I am one now, a slave to several thousand tiny mountain plants. I want to try to describe that process of discovery, of self-discovery if you like: the interchange between my rock garden and my writing as it has evolved over some 15 years.

As far as gardening goes, I see two separate mind-sets: the travel writer and the poet.

The gadding about in seven-league boots that travelers do might seem a far cry from the micro movements we gardeners make crawling about on our hands and knees. In my childhood, though, the two came together. The work that first ignited my wanderlust was Douglas Fairchild's *The World Was My Garden*, which my Uncle Charles put in my hands when I was ten. Then, on my first expanded European trip as an adult of twenty-two, I became captivated by a Moorish garden in Spain. The sight of the Alhambra, of its non-European joy fountaining into tiles and buildings and water gardens, sparked my first real writer's trip to its spiritual source in Iran, and, several decades later, to a book assignment in Central Asia, visiting the garden cities of Samarkand, Bukhara, and Khiva. For Persians, poetry and gardens are synonymous, created out of the same temperament that would give us gorgeous rugs, breathtaking architecture, and even whole paradisiacal cities. Couldn't my explorations invite a like *luxe, calme et volupté*?

The notion that paradise could be something installed here below—no more nor less than a bunch of plants arranged in a walled garden—was an unsettling one, especially for a man accustomed to think of himself as a searcher, a traveler.

What need could there be to don my boots and travel when I had multitudes of plant guests from the globe's various mountain ranges clamoring for appreciation? I don't aspire, as one of my chapter's members, Geoffrey Charlesworth, did, to grow every single mountain plant. Curiosity still compels me to try new introductions, wondering what they will add to the garden's kaleidoscope. But, unlike Charlesworth, I'm not a plantsman. Instead I relish a challenge not unlike that words pose to a poet: How do I arrange tiny plants so their each sounded syllable will be not only seen but remembered?

The plants, likewise, are a means to an end: one all the more challenging when the material, wedged between rocks, is so ephemeral—visible today, obscured by a weed, or another plant, tomorrow. Poems are less precarious. But the vast resources our diction provides compel a similar tinkering, of trying out effects and weighing them until each resonance echoes across the wordscape. The impossibility in either case of ever getting the balance right may explain Paul Valéry's remark that poems are never finished, merely abandoned. There's always more to achieve, and I'm judged accordingly: by the layering of levels I've managed to orchestrate; by the polyphony and emotional depth I've wrought; by the transparency with which words and imagery reflect an apprehensible design. As in the garden, the excitement comes in that each displacement teaches me something.

When a welcome rain offers a couple days' respite, I leave the garden and concentrate on poetry at my studio desk. But soon enough I'm back on my knees outside, coping with the resulting chaos, the life-threatening intruder that's a weed. Wherever I turn, I see areas that compel choices, and interventions, often urgent ones. Not every gardener finds the immersion as riveting. Perhaps they belong to a different sect from those of us who know only one way of proceeding—out of ignorance, edging from one tentative discovery to the next. Perhaps, being more experienced, they don't permit themselves the same mistakes. When plants from faraway ecosystems happen to strike my eye in a catalogue, mistakes seem inevitable. All those mistakes and plantless labels light up the garden as I inch through a veritable cemetery of former presences. That may be why an extant eritrichium arouses such disbelief. "Still here!" I marvel, pouring a little rainbow of attention before setting off to check a newly planted seedling.

The urgency, even so, hardly compares with the pandemonium of spring, when a winter's neglect needs to be somehow rectified and the new arrivals leap out of their trays. In a garden so chock-full, where and with what precautions am I to plant them? Can a hospital emergency room be more exciting? But the confusion mainly requires taking the time to mull the issues involved in translating a high-mountain plant to my lowland conditions with its muggs, its surfeit of rain, and its lack of adequate winter snow cover. Should the plant by some miracle survive, there is the matter of what kind of statement it will make at a neighbor's expense. The adjustments required are almost as endless as those of a poem. With a poem, however, there is always an earlier draft I can refer to; from the plant's point of view, each edit is more like surgery.

The garden in April and May resembles a train station: rather melancholy as the snowmelt plants, all their flowering done, their seeds set, make ready to

depart, while the Kabschia saxifrages, their several-inch stems waving briskly, pile up on the arrivals platform, greeted with the usual harried confusion: "Which one are you?" "How do you expect me to send your seeds to an exchange if you don't have a name?" Taking no chances, should I break off a segment or two and stash them in a soilless crevice, safe from a plague of egg-laying woodlice? As in a chess game, the seasonal sequence of one flowering plant rising over another requires some such multidimensional anticipation. Can I reserve room for growth, while observing the needs of concision? How concise? Six inches? Ten? Twelve? At what price the clarity of scale? Isn't my garden large enough to allow the comic exuberance of verbascums, welcome in the dog days of July when little else ventures a bloom?

Such exuberance, though, can throw the composition off kilter. I want my plants to look desirable even when not in bloom; maintaining scale allows them to be seen. Just as the words of a poem develop their impact from where they are placed—the weightiest points the two ends of a line, with often a long-held note in the middle caesura—so the rock gardener acquires a knack, rather much like enjambment, in placing trough-size plants in unexpected niches where they can be seen, backlit perhaps by a rock. As with a poem, I'm using concision to compel the viewer to scan more closely, a few inches at a crawl. In a miniature meadow the compression of overlapping presences may call to mind the knotted tightness of weave in a silk rug: a tap-rooted tapestry within a few square feet.

A rock garden cannot offer mountainous abundance, though sheer variety can go a long way toward conjuring a similar plenitude. But that requires scale, and with it a structure so the tiny effects popping up don't seem itsy-bitsy. The structure of rocks, shrubs, and plants should convey the feel of a mountain slope, with the mountained scale allowing each plant to be seen for the note it is. As always in a creation of excess, the line between order on one side and chaos or madness on the other is one the merest weed can mar. That turns me into a species of hawk as I veer about, trowel in hand, looking for an offender to pounce on.

For me, there's no accusation more damning than a blank spot in the garden. Why, with so much material at hand, haven't I filled it? Is my imagination deficient? If a blank spot accuses, do groundcovers, for all the bulbs and plants thrusting through them, represent more than a temporary fix? Each spring I wonder: Should I should rip out most of the thyme and phlox—while sanctioning a mat of globularia? On what ground—distinctiveness? Why not upgrade to a plant that, like *Erigeron scopulinus*, delineates the rock it overlies?

Rocks give structure, but in a garden it's the erigeron I want to see. That's what makes the June garden with its tumbling cascades of rock-covering bloom such a victory of precipitous color. That's also why I prefer the vertical arena of a 70° slope, with chasms, precipices, overhanging rain-shelter rocks, tilting one way and another in drunken abandon, each with some gem's oversized flowers shouting, "Look at me!" Do those seedling belles, each peering from its mossy lintel on my outcrop, recall Paris's Rue Saint-Denis at a brisk ten in the morning, while, like the truck drivers leaving Les Halles near it, the garden's "insect inspectors debate / niceties of pollen / shapes, stripes, cup size." (I like to think a garden can seem

suggestive to more than a bee.) But a layering of response, of overlapping seasonal effects, requires constant editing. Unlike the scientist, though, I'm dealing with individuals. Each garden plant represents a choice—of my magnanimity, if nothing else.

To visitors, I fear, the choices are less apparent. Rather, the riot of bloom can look kaleidoscopic. We gardeners negotiate the visual chaos with an intrepidity that makes others shake their heads. "All that work," they sigh in disbelief, "it's too much." And, of course, rock gardens don't have to be so time-intensive. Crevice gardens with their striated rows of rock and little slits of earth came into being as a solution to weeding. Their owners did not relish being garden slaves. Instead they wanted gardens they could leave in the summer when the mountains finally open up and their plant inhabitants call.

The difference between us comes down to one of temperament. There are the minimalists who approach the spatial concerns of a garden like engineers, and there are maximalists, like me, who need a surround of excess to feel most themselves. The important thing, for me, is to go out in the ever-changing wind and weather of the garden, there in the sandbox playing.

The same immersion holds for what I write. First thought, best thought, is the mantra of a whole school of poetry. Clearly, those Beat poets were not gardeners. For a gardener, ripping up a garden and starting over again, unthinkable as it might seem, becomes a way of keeping things fresh. It's I, after all, who am in charge, not the plants. Or so I imagine.

There are poets who, like certain gardeners, go to great pains to have their soil fumigated, the rocks all laid, before they so much as insert a line. You see them surrounded by thesaurus and dictionaries, among pages and pages of developed notes. The poem is an organism they assemble methodically, one set of rhymes bleeding into the next.

My writing, like my gardening, is more helter-skelter. I work with what comes, impulsively, as if dictated by some other self—the poet in me? It's not the images that, like plants, I splash about that count, but rhythm. Without a meter-making argument there is, as Emerson said, no poem, just a collection of words, thoughts. Prose? That, too, requires rhythm. I want my reader to latch onto a pulse before he succumbs to the din of words and imagery. Like a garden, the performance has to flow, one sequence into the next: enough variety, enough color, and enough complexity to represent an orchestrated moment. In bringing an awareness of life as no more nor less than a series of moments, the poem displays, much as a garden does, a particular sensibility: an ongoing effort to present myself.

With a garden, the visitor can keep coming back to see its seasonal diversity. Poetry attempts something similar in the way it withholds its secrets, its inner resonance. Like a garden, it must offer enough enticement to invite the reader bee to return. That, too, is what the garden teaches: how to participate in what its plants want to achieve. As I relax, they take me over. From this proximity, from listening to plants over time, I find myself debating in a plant's winter voice the issues of emergence:

Will snow that so enfolds
kindle us starry dead

To pry open the earth
And find its interred heart?

For a person as restless and impatient as I am, always ready to charge off somewhere new, the garden allows me to feel rooted: in a place's seasonal time; in a constantly changing moment surrounded with teeming presences:

When they erupt,
everywhere I stoop
strikes golden handles.
Grounded in blossom I walk
three times as fast
through the kingdom of wind.
Meadows blow by, fast-closing,
undeciphered. Who in such profusion
speaks for me? Whole minutes I stand
mesmerized by jostling buttercups
all raising their skirts and stamping.

In their vivacity those presences challenge me as a writer. Can I feel the same tender solicitude for my words that spring's tiny plants bring out? Is each minuscule effect as precisely articulated as a trough's flowers? More unlikely yet, does the poem breathe with a kindred excitement and energy, "its every earthstring stretched taut?" In the process of writing, of typing draft after draft, can I become myself a rockscape, "Sky and wind / Struck into flowers?" That may be a lot to ask, but that's the challenge the garden offers, and as a poet I try to meet it.

Robin Magowan is a poet, essayist, and travel writer whose extensive garden in Connecticut and active participation in NARGS have led to a number of welcome contributions to this journal, both prose and poetry. His rock garden most recently added a section designed by Josef Halda. The present essay previously appeared in the April 2010 issue of *Southwest Review*, vol. 95, nos. 1-2..

In Search of the Pink May Apple

Jim McClements

Most people in eastern North America are familiar with *Podophyllum peltatum*, the widespread native woodland plant commonly known as the "May apple" or "wild mandrake." It makes large stands of umbrella-like leaves, under which appears a single white flower arising from the junction of the leaf petioles. Younger plants, with only a single leaf, produce no flower (photos, p. 178).

I have known this plant since my early days in western Pennsylvania, and it also grows vigorously in many of the woodlands here in central Delaware. We transplanted a few onto our homesite 25 years ago and now have more than an abundant number!

About 20 years ago I was fortunate to obtain a plant of *Podophyllum pleianthum*, a Chinese species that has dark red flowers, and I have been "hooked" on the genus since then. In the course of learning as much as I could about the several Asian species, I began corresponding with Julian Shaw, a professor of pharmacology living in Nottingham, England, who had become interested in *Podophyllum* while investigating their chemical properties in relation to a possible cancer treatment. His interest became more botanical, to the point where he eventually began writing about the genus and developed an identification key. As a result, he was asked to do the section on *Podophyllum* in Stearn's monograph on *Epimedium*, which is currently the most definitive treatment of the genus.

As part of his research Shaw had come across reports of a pink-flowered form of *P. peltatum* and asked me if I knew of its existence. He wanted to obtain some samples to see if he could demonstrate by chemical means that the pink color might represent evidence of some ancient hybridization between the North American and red-flowered Asian species, stemming from the days when the continents were connected by the land bridge known as Beringia. This started my quest.

A search of available literature disclosed that such a plant had been reported, and collected, from several places. Probably the earliest report was by a botanist named Deam in his *Flora of Indiana* (1940). He described finding in 1927, near Mauckport, Indiana, what came later to be known as *Podophyllum peltatum* forma *deamii*, having not only pink petals but also a red ovary. A similar form has sub-

sequently been reported from several sites in Missouri and Illinois, as well as multiple sites throughout Pennsylvania. A second form from Missouri, having pink petals but without the red ovary, has recently surfaced. However, a few of these in my garden are barely a pale pink on opening and rapidly fade to white.

I obtained two plants of *P. p.* forma *deamii* several years ago and have seen them increase fairly rapidly into a small clump. The pink color is somewhat pale and tends to fade, but is quite attractive. The fruit is dark red, instead of the greenish-yellow typical of the species. This forma also appears to be self-fertile, at least to a greater extent than most podophyllums, which usually need two clones to produce seed. As it becomes available, it should become a popular plant for woodland gardens, with the caveat that it will probably spread as vigorously as its "normal" cousin. I should add that the same appears to be true of most of the Asian species that I grow.

My interest in podophyllums led me to experiment with a cross that Shaw had done earlier, between *P. peltatum* and *P. pleianthum*. I have raised quite a few flowering plants from this and can report that they are not only spectacular but also exhibit "hybrid vigor" in both size and rapid multiplication. Shaw has christened the hybrid *Podophyllum* × *inexpectatum* and includes it in his key to the genus. Unfortunately, it seems thus far to be self-sterile, a not uncommon situation with hybrids, but it does spread readily underground. I'm currently trying to cross *P. peltatum* with some of the other Chinese species, but I have nothing positive to report thus far.

Jim McClements, a retired physician, cultivates an extensive woodland garden in Delaware. He has contributed regularly to the *Quarterly*, and his photographs have won numerous awards in its annual photo contest.

Some Images from Hungary

Pál Kovács

Editor's note: This issue includes a sample of the award-winning photos submitted to our 2009 contest by Pál Kovács of Dorog, Hungary. He has kindly provided the following notes about the plants depicted.

Colchicum hungaricum (honorable mention, class 1; photo, p. 179): This nice cormous plant ranges from Greece to Hungary. Its main flowering time is February, but if the weather is warmer the flowers start in early January. The tepals are usually white, but sometimes pinkish or purple-pink as in the specimen shown. The margin of the leaf is hairy, which a good identifying mark for the species, which is poisonous like other colchicums. The photo was taken at Szársomlyó-hill, Hungary.

Hepatica nobilis (class 1; p. 179) is a widely occurring, low-growing perennial plant. It likes moist, calciferous soil. It blooms in early spring before the new leaves appear. The petals usually are blue, but sometimes pink or white. Its leaves have been used medicinally. The photo was taken in Zselic, Hungary.

The short-lived ***Linaria alpina*** (exceptional quality, class 1; p. 180) can be found in the high mountains of central and southern Europe up to 3800 meters. In its native habitat it forms a compact cushion densely covered with violet flowers. Unfortunately, in horticultural conditions it usually loses its natural compact habit. The photo was taken in South Tirol, Italy.

Ranunculus glacialis, (class 1; p. 180) a low-growing perennial, lives in the high mountains of Europe up to 4000 meters. Its flowers are white at first and then become pink. The flowering time is from July to October, depending on when the snow melts. It prefers rocky debris and scree. The photo was taken in South Tirol, Italy.

BOOKS

Flowers of Greece by Tristan Lafranchis and George Sfikas. Paris: Diatheo, 2009. ISBN 978-2952162029, 978-2952162036. Paperback, 2 vols., 431 + 445 pp., color photos throughout, plus DVD. Available from AGS Bookstore <www.alpinegardensociety.net/publications/>, £98 (members) or £120 (nonmembers); or from the authors, <lafranchis@yahoo.fr>, for 120 euro, or from Amazon France: <http://www.amazon.fr/exec/obidos/ASIN/2952162042>.

Reviewed by JANE MCGARY, Portland, Oregon

Greece, its islands, and its Balkan neighbor lands offer hundreds if not thousands of plant species suitable for the rock garden. The mountainous terrain with its generally shallow, rocky soils and long history of human activity, especially sheep and goat grazing, has spurred the evolution of plants that are compact, tough, and predator-resistant. Some that spend the winter months beneath mountain snows are even adaptable to rock gardens that lie far north of Mediterranean latitudes. In turn, rock gardeners have long been visiting Greece to enjoy its plants, climate, and historic sites—sites that themselves are often adorned with choice plants, thanks to the exclusion of livestock.

Numerous books have been written on the flora of Greece. Probably the one most often possessed by North American rock gardeners is Oleg Polunin's *Flowers of Greece and the Balkans*, which I find a little unsatisfactory to use because of its arrangement; it also has limited color illustrations, and the nomenclature has moved on since its publication. There are good works on specific regions, notably, in recent years, the sumptuous *Flowers of Crete* by John Fielding and Nicholas Turland—not an item for the backpack, but indispensable for reviewing at home what one has seen on the island. A field guide to the bulbous plants of Greece, by Christopher Grey-Wilson, is scheduled for publication by the Alpine Garden Society in spring 2010. George Sfikas, a coauthor of *Flowers of Greece* (henceforth *FG*), has written many popular books and articles, but these are available mostly in Greece, and in its language. Exhaustive scientific coverage

is the aim of the planned *Flora Hellenica*, unsurprisingly described in the introduction to *FG* as "slow to come."

The work under review is a gallant attempt to meet the needs of the botanical traveler by providing a fully color-illustrated field guide to the country's plants "which we hope will help nature lovers, botanists and gardeners." It is selective, not exhaustive: "The most attractive groups are presented in an exhaustive way such as *Dianthus, Viola, Campanula*, bulbous plants and trees . . . whilst other families like Polygonaceae, Chenopodiaceae or Amaranthaceae—whose many species often look similar and usually draw poor interest—have been covered very briefly. We have tended to exclude the scarcest or most local plants," although "Some scarce plants, which are extremely local, are presented as they grow in easily reached places." The degree of exclusion is indicated by mention, under each genus, of the approximate number of its species that occur in Greece, which can be compared with the number of species described in this guide.

The two thick volumes are bound in common coated paper coverstock; I haven't used them long enough to evaluate how long-lasting the binding will be, but anyone who buys these expensive books for field use will want to protect them in plastic slipcovers, which can be bought online or from some bookstores. The pages, about 14 by 20 cm (5.5 by 8 inches), lie open fairly easily. The paper is of good quality, unlikely to tear.

Volume 1 opens with a brief introduction covering geography, geology, climate, floral evolution, conservation, and flowering seasons. There follows a very condensed but useful section "Habitats in Greece," describing many typical plant communities from the seashore to high mountains, with lists of selected significant species. A glossary of botanical terms follows; it will assist users but is not complete and may leave the less knowledgeable stranded by such definitions as "glandular: with gland(s)." A section "How to recognize the main plant families" is actually a fairly complete key for the families covered in *FG* and includes small photos of typical flowers for some of them. The families and genera can be found via the index, which is helpfully duplicated in both volumes.

There follows the body of the work, the species photos and descriptions. This is more or less arranged in the sequence used in scientific floras, so readers who haven't memorized it will need the index; the family names are also prominently displayed in running heads, however. Each family entry includes a general characterization of it. Families with only two or three genera often don't have separate genus entries, but more complex sets have a section for each large genus. There are no keys to genera, so the user has to compare the genus descriptions to get to the right one. Within large families, however, the descriptions may be arranged in the form of a key, but this is a bit unpredictable.

For example, under Fabaceae (legumes, pea family), we find first a mixed bag of trees and large shrubs in eight genera; then the genus *Chamaecytisus*—unhappily, since *Cytisus* has been included in the mixed bag, it isn't immediately clear how the two are distinguished—broken into a two-part key by flower form; then *Genista*, split into simple and trifoliate leaves, and within the first into spiny and non-spiny; then, separated from *Genista* by a thin horizontal line, but without a

heading, is another mixed bag of five genera with one species each. We move on to *Lupinus* (5 spp.) and another mix that appears to have no unifying character. There follows *Astragalus*, always difficult for amateurs to identify and here given a good key treatment; the same is true for *Vicia, Lathyrus*, and *Ononis* to complete the family. The mixed bags, I think, are meant to be brought to the user's attention by the photos on the facing pages, so perhaps they were just slotted in where the photos fitted. A different approach seems to have been taken in the Brassicaceae (crucifers), where the steps of the key include fruit form, flower color, and growth habit. I think you would get used to this pretty quickly with actual application, but it would help to know immediately that you're *probably* looking at a *Draba*.

Each verso (left-hand page) displays as many as 11 photos, generally just an inflorescence and perhaps some leaves, and each recto is text; in most but not all cases the photos have their text facing. The photos are necessarily small, and some suffer from low resolution; many could have done with better color balancing, always a problem with current printing technology, which tends to overdo the black component and darken some details to oblivion. These deficiencies are mitigated, however, by the DVD (see below).

Once one arrives at the species descriptions, the great value of this work materializes. Diagnostic features are italicized, so that if you know what a stipule is and can tell laciniate from toothed, you can probably determine that you're looking at *Medicago polymorpha* (if you know what a *Medicago* is in the first place, and if it happens to have some pods present). That is, if you're not a North American who instinctively ignores a *Medicago* as an "introduced weed."

A choice now available to authors whose printing budgets don't allow lavish illustration is the provision of a DVD, and Lafranchis and Sfikas have gone all out in this regard, including a disc of 13,000 images (somewhat vulnerably housed in a flimsy vinyl sleeve taped to the cover of one volume). This tool is not very intuitively formatted and I flailed around a bit learning to use it, but the images themselves, from various sources, are invaluable, especially as they show the extreme variability of some species (e.g., the green-and-brown Greek *Fritillaria* species that frustrate me so often). The authors have made a wise decision, risky to their own interests but of great value to the user, to enable copying of this DVD to a hard drive. The serious, technologically oriented user of this field guide will want to bring the DVD on a notebook computer; others can compare their own field photos with its images.

In summary, this is a big-budget tool that I recommend to those who are planning intensive botanical travel in Greece, to commercial growers and other specialists, to institutions, and to self-indulgent botano-bibliophiles. NARGS chapters that maintain lending libraries for their members may wish to acquire it. I'd also like to mention that author Lafranchis regularly guides for the excellent Greentours company, especially in Greece, where he and his family reside.

A Year in a Rock Garden: An Organic Gardening Guide, by Ron Kushner. Create Space, 2010. ISBN 978-1450580090. 208 pp. Paperback, $19.95. Available from Amazon.com.

Reviewed by SALLY BOYSON, Denver, Colorado

This is an idiosyncratic diary of the second year of a rock garden, self-published by an experienced organic gardener and punctuated by thoughts about organic gardening. It is not about a generalizable rock garden, but about one in Zone 6 Pennsylvania (discoverable only by reading the back cover) in a certain year, and applicable in many ways only to that part of the country. Thirteen inches of rain in one month or being able to place rocks in the soil in January would be incomprehensible to many NARGS members. Other idiosyncratic elements include an appendix of 27 plants that are not to be grown in a rock garden, and a list of 300 plants that Kushner has grown, including some that failed or were too large—without mention that they, too would be unsuitable for his garden. At least one he recommends, Euphorbia myrsinites, is considered invasive in some parts of the country.

The diary aspects contain little to excite any but a naïve rock gardener, but the organic gardening lessons are useful and may be new to many. How does he fertilize through the gravel mulch? (Compost tea and fish emulsion, plus throwing compost into each planting hole, suffice.) Much of this, including the definitions of "organic," should have been placed in the beginning of the book.

Each month begins with a summary of a trip to another garden, which those in the area should find useful. The photographs will disappoint, as all are slightly out of focus and black-and-white, with distracting elements in many of those taken in Kushner's home garden. The latter show an eccentric style of mulching, with patches of white gravel around certain plants and a bark-like mulch elsewhere. The entire book could have used one more sweep by a copy editor, including the otherwise useful index. There is an extensive source list that will prove helpful to those looking for organic alternative products, as well as plants.

In short, this book is really two, with the appendices belonging to the diary aspect, and the source list to a short course on organic gardening. These might coexist more gracefully with the organic gardening advice boxed off and indexed separately, as those sections may be all some readers are seeking. For them, though, a more general, conventionally organized book on organic gardening would likely prove more useful.

In Memoriam: Anita Kistler

It is with deep sadness that we note the passing of a longtime NARGS member, Anita Kistler of West Chester, Pennsylvania. She had been a member of the Delaware Valley Chapter since its founding in 1965 and served as chapter chair. She died on April 22, 2010, at age 89.

At the NARGS national level, Anita ran the Society's bookstore from 1978 to 1984, and she was business manager of the Bulletin, predecessor of the Rock Garden Quarterly, beginning in 1977; in addition, she compiled the index for several issues of the Bulletin. Anita also served on the NARGS Board of Directors. She contributed eleven articles to the quarterly publication, including book reviews, beginning with "Long Bloom in My Rock Garden" in 1975. She received the national Award of Merit in 1976. Anita is honored with Phlox glaberrima 'Anita Kistler', whose flowers are bright lavender-pink.

Chuck Ulmann, a member of the Delaware Valley Chapter, remembers, "She was a superb grower and propagator. Her troughs, plants, wonderful rock garden, delightful personality, and mentoring to many of us will be missed."

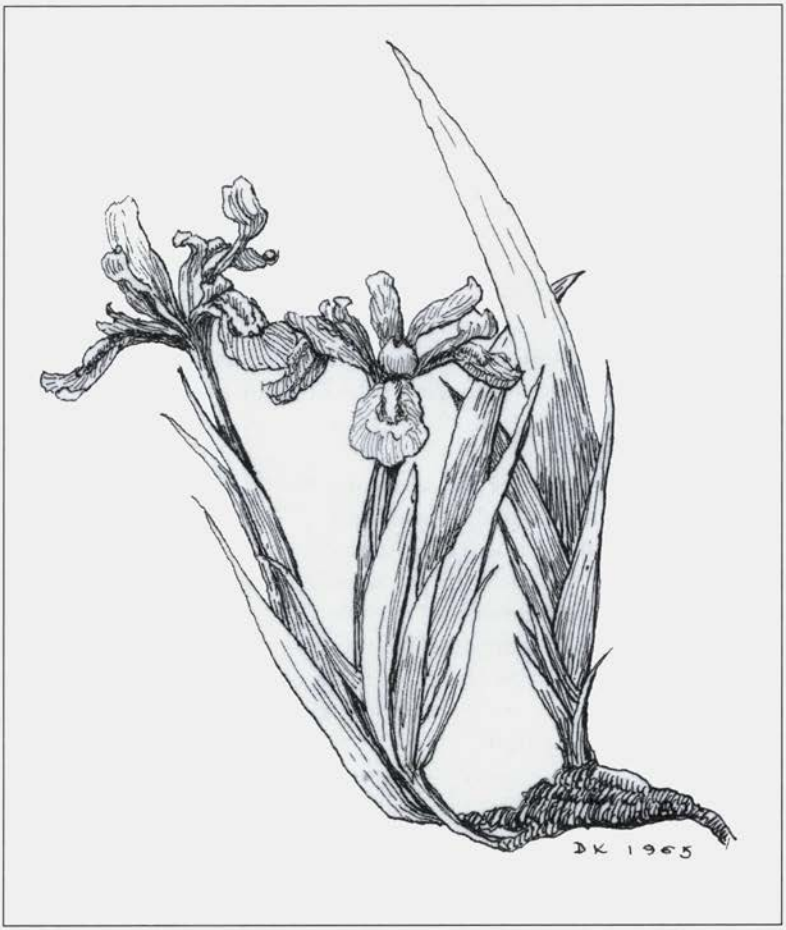
Jim McClements recalls how patient and generous she was with beginners: "She never made me feel stupid."

Betty Mackey, chair of the Delaware Valley Chapter, notes that Anita has been actively contributing to the chapter all along, even last year donating plants for the chapter's sale and enjoying visits from members. "For decades, Anita introduced the gardening public to rock gardening. Her farm and garden, included in so many garden tours over the years, gave so many visitors their first view of this enchanting way of dealing with plants in our landscapes. She directly taught many gardeners how to make and plant excellent troughs and how to propagate rock garden plants at her hands-on workshops," Betty remembers.

Anita was involved in establishing the collection of rock garden books at the Pennsylvania Horticultural Society library. She received numerous awards for her exhibits at the Philadelphia Flower Show and also awards of merit from the Pennsylvania Horticultural Society.

Anita was a graduate of the School of Architecture of the University of Pennsylvania. Her late husband, John, also a landscape architect, designed for the

Philadelphia Flower Show. During John's early years of association with the show, Anita saw the first exhibit of the local ARGS chapter and, in her own words, she was "hooked." "Before I even got my feet wet in the field," she said, "I was meeting the elite of the rock garden world."



Iris cristata, one of the plants that carpeted Anita Kistler's Pennsylvania garden. Anita's friend Doretta Klaber drew this plant for one of her books and included it in a set of drawings she gave to Anita, who eventually passed this trove of artwork on for use in the *Quarterly*.

Important Seed Exchange Announcement

The 2010–2011 NARGS Seed Exchange Seedlist will be posted on our website on **December 15**.

To view the Seedlist and to place an order, go to: www.nargs.org and click on "Seed Ex" in the tool bar or in the left-side menu.

On the "Seed Ex" page, you will find the current year's Seedlist, as well as all the necessary information about placing an order.

If you need a printed copy of the Seedlist, you must request one from:

Joyce Fingerut
537 Taugwonk Road
Stonington, CT 06378-1805 U.S.A.
alpinegarden@comcast.net

Please contact Joyce before **November 15**, so that she will know how many lists to print.

Donating Seeds: Without your donations there can be no exchange, and we welcome seeds of many different genera and genres. See the "Seed Donation Instructions" on the website or in the insert to this issue for guidance about what kinds of seed to send. The "Past Years' Seed Lists" on the website will also give you further ideas about what you can collect and donate, from your gardens or the wild.

From the President

Dear NARGS Members,

It's the first days of May and the spring flowers are glorious. The deep snows of February and early March seem so far away. While central Ohio was covered with snow, I had the good fortune to attend the Western Winter Study Weekend in Medford, Oregon on March 5–7, 2010. The program was terrific, and the won-

derful vendors and open gardens made everything much more special. I would like to congratulate Kathy Pyle and her Siskiyou Chapter organizing team—Lynette Davis, Dave Dobak (from the Columbia-Willamette Chapter), Phyllis Gustafson, Meridel Hedges, Peggy and John Hirsch, Kelley Leonard, Baldassare Mineo, and Paul Otto—for an outstanding job. Also, hearty congratulations to the Siskiyou Chapter on occasion of its 40th anniversary.

Just two weeks after the Western Winter Study Weekend it was time for the Eastern Study Weekend. This took place in Devens, Massachusetts and offered another selection of excellent speakers and vendors in the stylish venue of Devens Commons. The New England Chapter, which organized the meeting, dedicated it to the memory of Carol Fyler. Much appreciation to Rosemary Monahan and her planning committee: Helga Andrews, Vivien Bouffard, Stefan Cover, Helen du Toit, Ernie Flippo, Helen Herold, Dianne and Ray Huling, Jim Jones, Katy Kleitz, Donna Lane, Matt Mattus, Wanda and Dick Macnair, George Newman, Sally Perkins, Carol Riley, Cathy Rooney, Rachel Ross, Jan Sacks, Mike Saganich, Marty Schafer, Pat and Pete Schappert, Mike Slater, Bob and Dee Stewart, Mary Ann Streeter and Pat Wetzel.

There was one crucial membership services issue discussed at both Board meetings at the Study Weekends, and that's the future of the NARGS Book Service. The Book Service brings the organization a deficit of nearly $10,000 per year, as it is very difficult for such a small outfit to compete with big online booksellers like Amazon. Because of the deficit, the Administrative Committee (AdCom) recommended at the Board meeting in Oregon that the Book Service be phased out. The AdCom's proposal had nothing to do with the the performance of Jan Slater, the Book Service Manager; Jan does an excellent job. It's just a fact that NARGS cannot afford to lose so much money. That money is needed elsewhere, for example to pay for more pages and pictures in the *Quarterly*.

After the the first Board meeting, it became apparent that the membership did not want the Book Service phased out completely, but instead scaled down and reinvented. That was the reaction of many of the participants of the second Board meeting. I need to add that both of these Board meetings were open to anybody who registered for either of the Winter Study Weekends. All the registrants were sent e-mails inviting them to attend and participate in the discussion of the Book Service proposal, among other topics. In addition, there was also a public announcement by NARGS Treasurer Randy Tatroe, at both meetings. to inform the membership of the AdCom's position on the Book Service plans.

Later, the NARGS Board held an online discussion of the Book Service's future, and during this discussion it became clear that the best way to approach the matter is to establish a Task Force dedicated to the issue. To that end, I have formed the NARGS Publications Task Force and appointed Michael Riley, of the Manhattan Chapter, as its Chair. Michael and his team are going to study the Book Service and make recommendations on which the NARGS Board will vote at the Annual General Meeting in Colorado.

There is another Task Force active at NARGS, and it is addressing Online Seed Ordering. Tony Reznicek of the Great Lakes Chapter is Chair, and hope-

fully, thanks to the efforts of Tony and his team, the NARGS Seed Exchange will get online ordering capability this year.

This is the last issue of the *Quarterly* edited by Jane McGary. Please give Jane a HUGE hand for 10 years of exemplary service to NARGS!

Best regards,
Grazyna

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Meffert, Gordon, 5939 State Rd. 113, Waunakee, WI 53597

The following recently became NARGS Life Members:

Nina D'Ambra (New Jersey)
Lawrence Springate (Scotland)
Paula Thompson (Michigan)

The following recently became NARGS Patrons:

Louisa Ferree (Massachusetts)
Laura Gregg (Pennsylvania)

NARGS December 2009 Donations Appeal

(Donations Breakdown (as of 5/9/10)

Designated	
"Rock Garden Quarterly"	$3,249.24
Web site/Web master	350.00
Seed Exchange	1,005.00
Singer Endowment Fund	100.00
Speakers Tour	100.00
In honor of Larry Thomas (General Fund)	50.00
In memory of Pat Bender (General Fund)	150.00
In memory of Carol Fyler (General Fund)	25.00
General Fund	1,596.35
Total	$6625.59

Donors (since February 1, 2010):

Leslie Flanigan (Colorado)
Judy and Harvey Kagan (Connecticut)
Nancy Koltun (Illinois)
Marj Smith (Australia)
Boyd Hutchison (Massachusetts)
Christian Homsi (France)
Henri Leclerc (New York)

NARGS Coming Events

Western Winter Study Weekend: February 25–27, 2011. Victoria, BC. Venue to be announced. Hosted by the Vancouver Island Rock and Alpine Garden Society. Contact: ???

2011 Annual General Meeting: June 2011. New Hampshire. Dates and venue to be announced. Hosted by the Fells Chapter.

Wildflowers of Yunnan

June 2011

- Follow in the footsteps of George Forrest and Joseph Rock
- Visit the fabled cities of Dali, Lijiang and Zhongdian
- Hunt for Primulas, Rhododendrons and Pleiones on the Cangshan
- See Meconopsis delavayi on the Gang Ho Ba and Rheum nobile on Da Xue Shan

Join **Liz Knowles** in her annual quest for wildflowers around the world. Reserve your place now.

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NEW ZEALAND ALPINE GARDEN SOCIETY
Study Weekend 2012

The NZAGS is pleased to announce its next Study Weekend, "In from the Wild—from the Great Outdoors to Our Gardens," to be held at Lincoln University, Canterbury, South Island, February 3–5, 2012.

We extend a warm welcome to our two key speakers, Harry Jans from the Netherlands, and John Massey from the U.K. Harry is well-known for his world travels looking at alpine plants in the wild, particularly in China, photographing them, and growing them superbly well in his garden at home. John is an eminent plantsman and proprietor of Ashwood Nurseries in England, which specialises in hellebores, hepaticas, lewisias and auriculas. He also has a magnificent private garden, which is regularly opened to the public for charity.

Harry and John will be supported by a full programme of events, including local experts speaking on a wide range of topics, so there will be something for everyone. Overseas visitors are very welcome to register their interest now and request further details as available by e-mailing Ann Cartman (annandjoe@xtra.co.nz) or Doreen Mear (doreenmear@hotmail.com).

Make a date in your diary!

N·A·R·G·S BOOK SERVICE

SPECIAL OFFER

The Caucasus and Its Flowers, Holubec and Krivka. A comprehensive and lavishly illustrated presentation of the spectacular flora in one of the world's biodiversity hot spots. Concise historical, geographical, ethnological, ecological and climatological introduction. 390 pp., $30 US, $40 outside US, includes shipping.

RECENT TITLES

Chlorophyll in His Veins, Bobby J. Ward. An intimate biography celebrating the life and accomplishments of J. C. Raulston. Reviewed in spring 2010. Paperback, 352 pp., black & white photos. **$19.00**

Armitage's Vines and Climbers: A Gardener's Guide to the Best Vertical Plants, Allan M. Armitage. Profiles of 115 woody, herbaceous, annual and perennial plants include general description, hardiness, plant family, propagation, growth habit, and name origins. Timber Press. 212 pp., 239 color photos. **$24.00**

CLASSIC FAVORITES

Alpine Plants of North America, Nicholls.	**$40.00**
Bulbs of North America, NARGS, ed. McGary.	**$15.00**
Creating and Planting Alpine Gardens, Murfitt.	**$17.00**
Creating and Planting Garden Troughs, Fingerut & Murfitt.	**$18.00**
Cuttings from a Rock Garden, H. L. Foster.	**$ 9.00**
Lewisias, Davidson.	**$20.00**
Saxifrages, McGregor.	**$40.00**
Rock Garden Design and Construction, NARGS, ed. McGary.	**$23.00**
Rock Garden Plants: A Color Encyclopedia, Mineo.	**$48.00**
The Rock Garden Primer, Grey-Wilson.	**$24.00**
Handbook on Troughs, NARGS.	**$5.00**
A Rock Garden Handbook for Beginners, NARGS.	**$5.00**

NARGS Book Service
4411 New Holland Road Mohnton PA 19540 USA
610 775 9084, voice or fax nargs@voicenet.com

ORDERING: Please print name and address clearly with postal code and country of origin. Orders must be prepaid via VISA, MasterCard, AMEX (please include signature, full account number, date of expiration) or check or money order in US DOLLARS by check on a US bank or international money orders drawn on a US bank or US Postal Service.
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US Orders	first book $4.00	each additional book $2.00
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North American Rock Garden Society

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Your financial support for NARGS programs is important and appreciated. We are a 501(c)(3) tax-exempt organization, and donations to NARGS are fully tax deductible to the extent allowed by law. The purpose of the society is to encourage and promote the cultivation, conservation, and knowledge of rock garden plants, their value, habits, and geographical distribution.

Please consider giving to any of the following:

NARGS *Rock Garden Quarterly* (more color photos, more pages, digitizing past issues)	$ _____
Web Site (instructional videos, standalone membership database)	$ _____
Seed Exchange	$ _____
Speakers Tour	$ _____
In Memoriam or In Honor (circle one) (in whose name: _____)	$ _____
Norman Singer Endowment Fund (supporting projects for research, plant exploration and other extensions of NARGS' mission)	$ _____
Geoffrey Charlesworth *Rock Garden Quarterly* Writing Prize	$ _____
General Fund	$ _____
TOTAL	$ _____

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Mail form to:
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