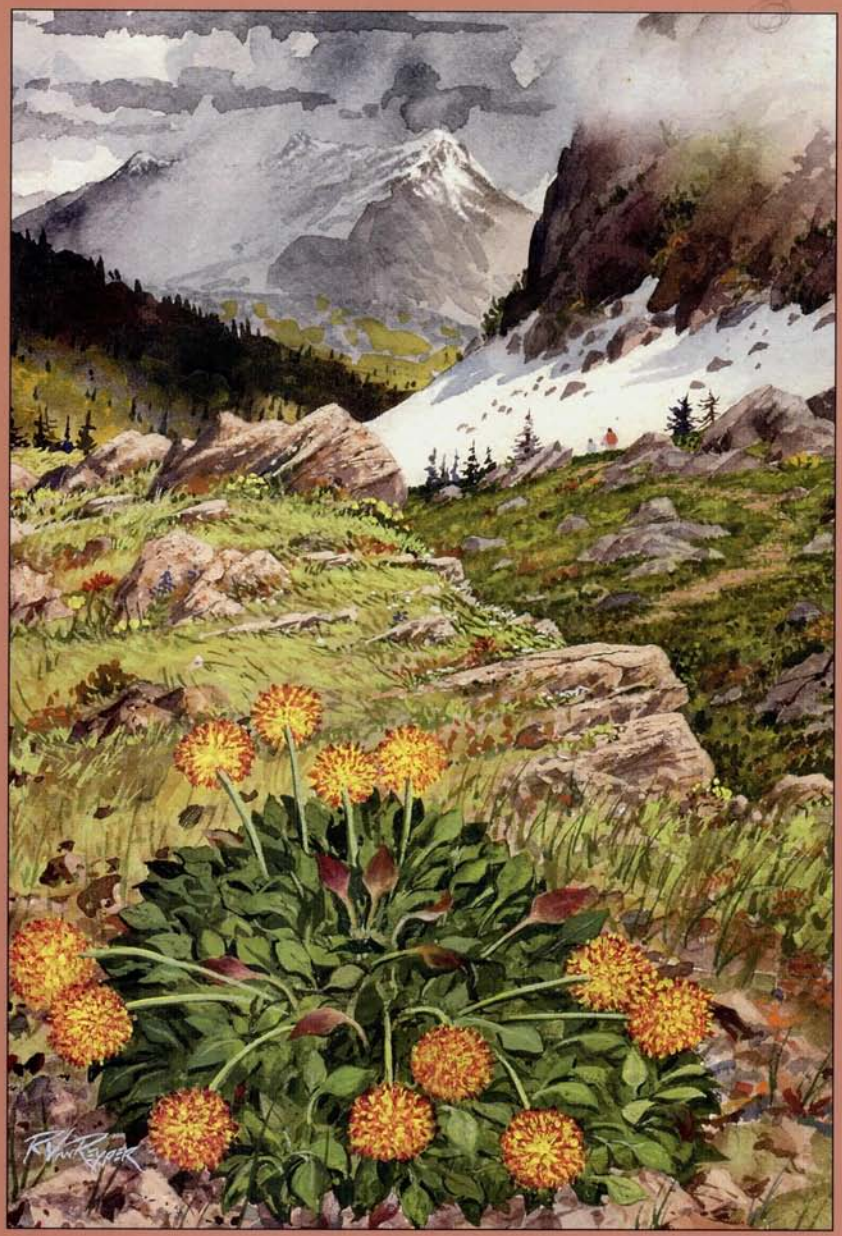
ROCK GARDEN



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VOLUME 55 NUMBER 4 FALL 1997

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ROCK GARDEN QUARTERLY

BULLETIN OF THE NORTH AMERICAN ROCK GARDEN SOCIETY

VOLUME 55 NUMBER 4 FALL 1997

FEATURES

DEPARTMENTS

Harold Epstein, 1903—1997

HAROLD EPSTEIN:

AN APPRECIATION

by Francis H. Cabot

"I have never met such an enthusiastic man for plants and especially for alpines."

So wrote Henri Correvon, commenting on Reginald Farrer, in a letter to Martha Houghton. The same could be said some 80 years later of Harold Epstein, with the possible substitution of 'Japanese woodlanders' for 'alpines'.

Harold devoted his life to plants and to organizations concerned with plants. When he moved from New York City to a newly built house on a rocky acre in Larchmont in the 1930s, he had the good sense to consult with Elizabeth Hall, the legendary librarian of the New York Botanical Garden, who introduced him to the books of Louise Beebe Wilder, as well as to Tom Everett, who was then in the process of creating the Thompson Memorial Rock Garden on NYBG's grounds, and who had been one of the founding members of ARGS in 1934. Harold immediately joined ARGS, and the record from 1939 to the present day speaks for itself.

Harold was not a successful CPA and co-principal of various commercial corporations for nothing. He did things right from the start. Blessed with an innate aesthetic sensibility and a voracious appetite for horticultural knowledge, Harold had the very good judgment to enlist the skills and talents of Zenon Schreiber in the design and layout of what came to be called 'La Rocaille'. Schreiber, a Swiss immigrant who had started working with Marcel Le Piniec's Mayfair Nurseries, was a genius when it came to rock work and won many gold medals for his superb exhibits in the New York, Boston, and Philadelphia flower shows. In the late 1930s, when he was working with Harold, he had also designed and installed the rock garden in the Gardens on Parade section of the 1939 New York World's Fair and was working on Leonard Buck's extraordinary garden at Allwood in Far Hills, New Jersey. The "bones" of 'La Rocaille', as a consequence, were a rock gardener's dream, with natural ledge and giant boulders seamlessly integrated into a harmonious setting for plants around the new house.

Harold's achievement in creating over a number of years one of the great plantsman's gardens of the century was unparalleled. At once fascinating to the skilled plant enthusiast as well as to those concerned with aesthetics, Harold's

garden never ceased to give joy and inspiration to those exposed to it.

I remember so many instances of bringing distinguished horticultural figures from the United Kingdom to see Harold's garden in the course of touring gardens in and around New York City. Invariably there would be a sigh of relief and the exclamation, "Now this *is* a garden!" Harold Hillier, Will Ingwersen, and their ilk would stay with Harold on their trips to the United States.

Harold's collection of Japanese species is surely the most notable in the USA, if not the world, and in many instances 'La Rocaille' served as the incubator from which plants garnered from nurseries throughout Japan were introduced to American horticulture. *Hakonechloa macra* 'Aureola' is now in widespread use. Harold is reported to have said: "That's here by accident, like a stowaway. When I import plants from Japan, they are shipped with bare roots wrapped in sphagnum moss. This grass was an unknown seedling hidden in one of those mossy covers." (*New York Times*, Nov. 21, 1997). Harold even tracked down the equally beautiful, if less striking, green form of *Hakonechloa*. I have yet to see it in anyone else's garden. And how many of us saw our first *Arisaema sikokianum* or rare species of *Enkianthus* or *Corylopsis* at 'La Rocaille' and were spurred on to find those gems for our own gardens?

Harold was the leading exponent of the use of *Epimedium* and *Primula sieboldii* years before the current fashion. By obtaining two double white trilliums some 50 years ago, and by never dividing them, 'La Rocaille' now has the two largest clumps of this desirable plant extant. Harold always claimed that he had lost more of his plantings than he had had success in growing on. If so, one is not aware of it, for there appears to be an unlimited diversity of beautifully grown plants happily juxtaposed for year-round interest. Above all, Harold was a pragmatist and ended up filling his garden with plants that enjoyed the habitat. There is a lesson there for all of us.

Harold's horticultural friends were legion, and they were attracted to him through their shared curiosity for and love of plants. He was part of that charmed circle which would meet regularly once a week after hours in Elizabeth Hall's office at the New York Botanic Gardens and debate such questions as whether there really was a difference between *Juniperus squamata* var. *prostrata* and *Juniperus procumbens*, or whether P.J. van Melle was suitably objective in choosing *Disanthus cercidifolius* as his favorite shrub. There was rarely a time, when one mentioned an obscure horticulturist, that Harold's retort was not "Him? I know him!" And he did. He knew them all.

I had a wonderful chance to see Harold in action in 1981. The previous autumn, Anne and I had gone on one of Harold's tours to Japan, along with Ellie and Joel Spingarn and several other members of ARGS mixed into one of his regular groups. That winter he suggested that I accompany him to North Carolina. He thought it would be a natural to hold the 50th Anniversary in 1984 in Asheville.

We had a wonderful trip, meeting all the plant folk in the area, who welcomed Harold as an old friend, and before long it was a done deal, and I found myself, unwittingly but thoroughly willingly, the person charged with the responsibility to do whatever necessary over the next three years to make the meeting happen. Harold had motivated us all and was duly and properly acclaimed at the event.

There are many who are in Harold's debt for nurturing their interest in plants

proceed on their own. There are many others who were introduced to the gardens of Europe and Japan with Harold as their guide, making sure they were exposed to the best of what was out there. How he and his warm and wonderful Esta stood that amount of travel is hard to understand, but they seemed to thrive on it. Harold had the thickest of skins when it came to fielding the gripes of fellow travelers, serving as a role model on how to handle the unfortunate member of the group who all others wished had stayed at home.

Harold and Linc Foster, the two eastern Nestors of the Society from the 1950s through the 1980s, were (usually) friendly rivals. Both were enormously important in the development of the Society, Harold in nurturing its post-war growth and for instituting and emulating the English practice of Study Weekends; and Linc in turning ARGS into a truly national Society and for writing the definitive bible for American rock gardeners. Both had extraordinary gardens and a talent for inspiring enthusiasts, and, inevitably, they were rivals. There was a memorable talk given by Linc, at, I think, a Connecticut Chapter meeting at which Harold was present, on the history of the Society. Linc managed to omit any reference to Harold whatsoever, a remarkable feat in itself. There was another moment at a Hartford study weekend when Linc gave an exhaustive overview of the Primulaceae, which Harold more or less slept through, until the end, when he roused himself, ever the pragmatist, and asked Linc why he hadn't mentioned *Primula sieboldii*, Harold's favorite of the genus, and one of the handful of species that thrives in Zone 6. Of course Linc had done while Harold was tuned out. Linc's reply was suitably scathing. It is not always easy for Nestors to appreciate one another fully.

Harold was intimate with all the great horticulturists of his time, from the days of Clarence McK. Lewis and Leonard Buck and the key figures of the Alpine Garden Society and Scottish Rock Garden Club to the present-day luminaries. He had the universal respect of plantsmen and plantswomen around the world, and he will be sorely missed—in this Society, in the Rhododendron and Orchid Societies, in the Hortus Club (which he founded with Tom Everett in 1952), and by all who were thrilled by his garden, where, immaculately dressed and redolent of a fine eau-de-cologne, he would introduce his visitors to a peaceful setting filled with the beauty of a diverse plantsmanship of the highest order.

I like to think that Harold is now enjoying the company of so many friends who left before him. I can hear Tom Everett's ribaldry in the background, josh-ing Harold, and gales of laughter ensuing. I wonder if it is because someone has pointed out that Adam was the very first gardener, and that Harold has replied, "Adam? I know him!"

Frank Cabot gardens these days in La Malbaie, Quebec, and derives much pleasure from an oriental garden and setting that was built after a trip with Harold to Japan in 1980. Harold saw it under construction, but one of Frank's regrets is that Harold never saw the completed version in its ravine setting surrounded by sweeps of the Asiatic plants Harold loved—*Anemonopsis macrophylla, Aruncus aethusifolius, Adenophora nikoensis, Athyrium goeringianum* 'Pictum', *Hakonechloa macra* 'Aureola', *Hylomecon japonicum, Iris gracilipes* 'Alba', *Jeffersonia dubia, Kirengeshoma palmata, Petasites japonicus* 'Variegata', *Primula kisoana* 'Alba', *P. florindae,* and *P. sieboldii, Rodgersia podophylla, Thalictrum diffusiflorum, T. kiusianum, and T. coreanum* (or *ichagense*), *Tricyrtis latifolia,* and *Waldsteinia ternata,* to name a few.

HAROLD EPSTEIN:

GARDENER, MENTOR, FRIEND

by Nickolas Nickou

My first horticultural connection after moving to Branford, Connecticut, in 1956 was with an orthopedic surgeon interested exclusively in rhododendrons. Through him I met Harold Epstein, a gardener with much broader interests.

The eye-catchers on my first few visits were drifts of at least three forms of *Hakonechloa*, large masses of the double bloodroot, and stands of very husky *Arisaema sikokianum*, but it did not take long to find more isolated clumps of *Deinanthe* (*D. bifida* and *D. caerulea*), *Anemonopsis*, and *Glaucidium palmatum*. The last three are still not often seen in gardens. Over 40 years ago Harold was selling these and numerous other choice items through his catalog. Harold was a first-rate propagator. His catalog has not been matched for descriptions and cultural advice.

In Harold's garden I saw my first *Adonis amurensis*, *Arcterica nana*, *Arisarum proboscideum*, *Chionographis japonica*, *Corema conradii* (whoever sees this for sale now?), *Hylomecon japonicum* (a rarely seen but glorious beauty) and *Iris gracilipes*, a stunning, early spring treasure. There were many more, of course. Printing the catalog and its supplements in an issue of our journal now would open a few eyes.

I got my *Kirengeshoma* from Harold and it is now nearly 5' high and 6' wide and self-sowing to the point where it has to be controlled. Harold said he never had self-sown seedlings. I replied that his garden was too tidy.

Harold had a great eye for placing plants in the landscape. One truly dramatic planting was an area covered by *Tsuga canadensis* 'Cole's Prostrate' out of which grew five vertically trained specimens of the same variety. Awesome! Another was a single clump containing about 50 stalks of *Cypripedium calceolus* at the base of a large rock.

Harold visited many gardens and wild areas of the world and knew and could discuss intelligently the plants seen, including their families, distribution, and other pertinent information. Harold was a horticulturist of the first water. He had his detractors, and some of their comments had merit. But they were and are minor characters pin-pricking a major plantsman—and who among us is above criticism?

Harold was my friend. He was my mentor.

HAROLD EPSTEIN:

MEMBER AND PRESIDENT OF ARGS

by Marnie Flook

Harold Epstein's involvement with the American Rock Garden Society started almost as soon as he became interested in rock gardening:

"The saga of our garden begins in the spring of 1937, when my wife Esta and I purchased our present home situated in the woodlands of rocky Larchmont, a suburb of New York City. Our new home was in a dense forest of oaks and huge rock outcrops. We did not realize the challenge we confronted in taming this wild, rough parcel of land. We little suspected how our lives would be enriched by the adventure of developing this garden and by the introduction to the world of horticulture via membership in the American Rock Garden Society."

For advice the couple visited The New York Botanical Garden Library where the librarian, Elizabeth Hall, suggested they read four books by Louise Beebe Wilder. They then consulted with Thomas H. Everett, who was in charge of the Thompson Memorial Rock Garden, which was then being constructed. He recommended they join ARGS; they met Dorothy Hansell, the ARGS Secretary, and became members in the autumn of 1939. They also joined the Middle Atlantic Region and immediately became deeply involved with both the National Society and the local group, attending lectures and visiting gardens. In 1942 Harold Epstein became chairman of the Middle Atlantic Region; he also volunteered to produce the 1942-43 Year Book for the Society.

In December 1942, Dorothy Hansell resigned as ARGS Secretary and as Editor of the *Gardeners' Chronicle of America*, disposing of her family's interest in the publication. ARGS news, announcements, and reports had been printed in the magazine since ARGS was organized in 1934. The Board of Directors decided not to renew their contract with the magazine, which ended with the March 1943 issue, but instead to publish their own bulletin. Harold Epstein wrote:

"I was on the Board of Directors when the problem of starting a new publication for the Society was discussed. To demonstrate that such a publication was feasible, I offered to edit the first bulletin myself. Within a few months members received Bulletin Number 1, which included eight excellent and appropriate articles from authors in different areas, including one by Frances K. Roberson of Seattle, still active in the Northwestern Chapter. The issue also included adver-

tising to help defray the cost of publication, printing, proofing, and binding. The most important result of that first issue was that it induced Dr. Edgar T. Wherry to become Editor."

The Year Book section contained reports from the President, Editor, and Secretary. Harold became the Exchange Editor for the new publication. He also remained Chairman of the Middle Atlantic Region. When regions were reassigned in 1944, the New York area became part of the North Atlantic Region, and Harold continued as chairman until 1948.

Harold was in charge of Exhibits and Publicity for the Annual Exhibition, the first flower show held by ARGS in many years. This successful venture, held in New York City on May 16 and 17, 1945, featured miniature rock gardens, including one constructed by Harold Epstein and K. Domoto, *"outstanding for its unusual and choice plant material."* He wrote several articles for the early bulletins, including a fine three-part series on *Epimedium* and *Vancouveria.* At the Annual Meeting at Mrs. J. M. Hodson's home in Rock Ridge, Connecticut, on May 22, 1948, Harold Epstein was elected President of the American Rock Garden Society; Dorothy Hansell was re-elected Secretary.

Harold was unable to attend the Annual Meeting held at the Buck Garden in May 1949, but his message was read to members and printed in the *Bulletin.* He was participating in the Rhododendron Conference sponsored by the Royal Horticultural Society in England, an event planned before the war. He was impressed at the *"keen interest in horticulture...which far surpasses anything in the States."* He was concerned about the need for more members. Dorothy Hansell reported that a concerted drive had been made to attract ardent gardeners and that Mr. Epstein had written an excellent article for *Flower and Grower,* which also carried an advertisement for the Society. In addition he had given lectures to two garden clubs, being rewarded with several new members. Walter Kolaga had distributed leaflets with his Mayfair Nurseries catalog, adding 25 members.

By 1950 ARGS had 600 members; over 100 attended the 1950 Annual Meeting, in Chestnut Hill, Massachusetts, where Harold was re-elected President.

"On the motion of Mr. Clarence Lewis, seconded by Walter D. Blair, a resolution expressing appreciation of the splendid services rendered the Society by Mr. Epstein was drawn...in accepting another term as President, he said it was his great ambition to see more men join the American Rock Garden Society and participate in its activities. He was delighted to note the presence of so many men at the annual meeting and hoped he could accept it as a good omen. He called attention to the remarkable growth and accomplishment of the Men's Garden Clubs, indicating that the women no longer could claim all the glory in this direction..."

Dorothy Hansell, who had assumed the Editor's job in 1948, retired as Editor at the end of 1950 and was replaced by Guy Nearing. She continued as Secretary, but the work load had increased so much that the following year the Secretary's job was split into three positions: a Recording and a Financial Secretary were appointed, and Hansell remained the Corresponding Secretary. The early 1950s were difficult years for ARGS, with membership static and a lack of volunteers. However, the biggest problem was obtaining manuscripts for the *Bulletin.* During this period Harold and Dorothy were doing much of the work of the Society. In November 1952, Harold wrote to Dorothy:

"Oft times I feel the same as you do and have to ward off the periods of despon-

dency over the lack of cooperation in this group. It is the old story of a few of us—very few in fact—that carry the load....I suppose we might as well face the facts and carry on the best we can until some angel comes along with relief."

Harold had represented ARGS at the 1951 International Rock Plant Conference where he lectured on "Dwarf Forms of Canadian Hemlock." He offered to obtain articles for the *Bulletin* from friends he had met in England. An arrangement was made with Will Ingwerson to write a series of six articles. At about the same time he arranged for a free exchange of advertisements between the various plant societies and ARGS.

At the Annual Meeting in 1952 Harold announced that the Board had decided that the *Bulletin* would be issued quarterly rather than bimonthly, that there would be more pages per issue, and, as usual, material was needed. He reminded members that all the work done by President, committees, and officers of the Society was given freely without compensation. Dorothy Hansell, as Chairman of the Nominating Committee, announced that Harold Epstein had asked to be relieved as President, as heavy duties in his business made it difficult for him to give so much time to the Society. However, she said, they had been unable to find someone else and had prevailed upon Harold to continue as President.

Two years later the Annual Meeting was held in Larchmont at the Epstein home. *"More than fifty members were present, spending the next hour and a half examining the many unusual treasures growing in the extensive beautiful gardens which Mr. Epstein has been developing for the past sixteen years."* At the business meeting Harold reported that the *Bulletin* was *"one of our greatest problems, but one of our greatest assets"* and again pleaded for material *"from the most scientific to those for the newest amateur."* He was again elected President; after thanking members he said he *"hoped that two years from today someone else will come into the office and bring new ideas."*

For many years Harold Epstein had had an intense interest in Japan which he finally visited in 1954. Carl Worth, who replaced Guy Nearing as Editor later that year, published Harold's report in the *Bulletin*. "Visit to Japan" began:

"The ability to cultivate so many of the finer plants emanating from Japan, and a realization that our Eastern American flora is so closely akin to it, had created a keen desire to learn more about Japan, its plants and people. During the past few years such curiosity was further kindled as a result of correspondence and interchange of seeds and plants with some keen plantsmen in Japan."

Epstein was met by Dr. Yoshiharu Matsumura, Japanese botanist and Director of the Nikko Botanic Garden, who had been given an honorary membership in ARGS when he was working on Rocky Mountain alpines in Colorado several years earlier. During the visit Harold met with many Japanese horticulturists, saw plants in numerous botanical and private gardens and in some beautiful natural areas, and several times gave slide presentations on North American plants. He described this all in a fascinating three-part series in the *Bulletin*.

In October, 1955 Harold wrote to the ARGS Board and Officers about a

"most critical situation which will confront this organization in the near future...the urgency of the matter really requires some immediate solution: President—I have held this position for four terms, a total of eight years and am frankly desirous of now having a successor. It would undoubtedly benefit the Society to have a change in leadership, and I therefore urge the Board to give serious study to obtaining such a candidate. Secretary—three now doing the

work of what one formerly did—several are resigning and need replacement. The Treasurer also may need to be replaced."

He concluded that for a nominal fee one person be hired to be Secretary-Treasurer. Consequently a notice appeared in the January 1956 *Bulletin* that Edgar Totten, chairman of the slide collection and *"one of our most reliable eastern members...had accepted the Secretary position provided he would take over the work immediately...we hope that it is a long term solution to a very vexing problem..."*

In January 1956 Harold Epstein organized the first in a series of winter symposiums. Nine of these all-day meetings devoted to lectures and discussions of rock gardening were held in New York between 1956 and 1964. Refer to the *History*, expected to be published in January 1998, for more details. At the Annual Meeting in May 1956 Harold was again elected President. Two years later all officers and directors were re-elected.

The *Bulletin* celebrated the Twenty-Fifth Anniversary of the American Rock Garden Society with a special silver-covered edition, articles about the past by charter members Dorothy Hansell and Robert Senior, and greetings from President Epstein:

> *"This Society is proud to include in its membership some of the country's (as well as foreign) prominent plantsmen, both amateur and professional...the major contacts with its members are still primarily through its quarterly* Bulletin *and the continuously expanding Seed Exchange. This availability of choice and uncommon seeds should be recognized by more members, for one of the great thrills is germinating seeds and watching their eventual growth to maturity and flower.*
>
> *"The advantage of personal contact between individuals with similar interests is evident in the very successful periodic functions in Seattle, New York and Boston, where large groups of members are centered....Local groups are encouraged to arrange meetings even with a small nucleus."*
>
> *"There is one disturbing element in the subject of availability of rock plants....a decreasing number of prominent nurseries cater to the rock garden...it is depressing to note that half of the sources listed in the early numbers of the* Bulletin *are now out of business."*

He finished by thanking Carl Worth for his work as Editor, Bernard Harkness and Arthur Kruckeberg for their work with the Seed Exchange, and gave a special toast to the efficiency and devotion of Secretary Edgar Totten.

The Silver Anniversary Annual Meeting was held in New Jersey on May 16, 1959. *"Several records were broken, among them the largest attendance at a meeting since the early days of the Society, and the coldest May 16 ever recorded in this section (41.9°F at 6:20 a.m.; 59.7° at 4:35 p.m.)."*

The following year he was unable to attend the Annual Meeting. Edgar Totten read the letter to members which Harold had sent from Switzerland. Harold pointed out that dues had not been raised in the last 26 years, and he consented to being named candidate for the Presidency again providing *"that it will be my final term...I have been proud to accept this leadership and enjoyed the work involved...I believe that a younger and keenly interested successor must be sought for the future."*

At the Annual Meeting in 1961, Harold spoke about the Third International Rock Garden Plant Conference, which he had attended that April. No other business was reported. The next year, with the temperature hovering close to 100°F, Harold was once again elected President. He announced that Carl Worth had

resigned as Editor and that finding a replacement was proving difficult. (Shortly afterwards Harold sent a notice to every member that Merle Sutton had been appointed the new Editor). The Secretary reported a membership of approximately 800 with the usual annual turnover of around 100 members. There were no reports for 1963.

The 1964 Annual Meeting was held at The New York Botanical Garden on May 2. A competitive show was held, the first in many years. The best plant in the show, Richard Langfelder's pan of *Gentiana acaulis*, was awarded the Epstein Cup, a new award donated by John Osborne in honor of the retiring President. At the business meeting, Harold reported that the Executive Committee had recommended that dues be raised; a motion was made and passed to that effect. He also appointed a committee to look into ways of providing rock garden plants to members. And most important, he reported that the choice of the Society's emblem would finally be announced in the next *Bulletin*. Edgar Totten's resignation as Secretary was accepted. Lincoln Foster was elected the new President, Lawrence Hochheimer the new Secretary, and Harold Epstein, President Emeritus. A resolution was passed with acclamation:

> *"BE IT RESOLVED by the members of the American Rock Garden Society, assembled in annual meeting....that they express their sincere appreciation of the dedicated leadership and devoted service Mr. Harold Epstein has rendered so unselfishly to the interests of ARGS during his sixteen years in office as President; that they further express their appreciation of his kind generosity and enthusiasm, his encouragement and inspiration, and his outstanding contributions to the advancement of rock gardening—all of which has contributed so much to the growth of the American Rock Garden Society."*

Harold Epstein may have retired as President, but he immediately became active in other facets of ARGS affairs. He was chairman of the committee which chose the emblem design and arranged to have the pins and lapel buttons made. He headed the committee which chose a selection of early *Bulletin* articles which were republished as *The Rock Gardeners' Handbook* in December 1965. for more information on this fine little book, see the chapter on publications in the soon-to-be-published *History of ARGS*. In 1966 he was presented with the ARGS Award of Merit, one of the first members to receive the new award that Lincoln Foster had initiated the previous year. His good friend Dorothy Hansell read the citation that listed his many accomplishments on behalf of the Society and ended, *"In presenting this award, the American Rock Garden Society especially honors him as its past President, as an outstanding horticulturist, and in particular as a keen rock gardener."*

Since 1940 Harold and his wife Esta had been traveling to many parts of the world to see plants growing in their native habitats. They not only explored the United States and Canada, but, as mentioned earlier, Japan, Europe, and Mexico. Harold formed a company, Flora and Travel, and for years organized tours for ARGS members to the Northwest, Japan, and Europe. ARGS received a donation from each person who went on these tours. Harold wrote several articles for the *Bulletin*; the floristic relationship between eastern North American and eastern Asian plants was of great interest and his article "Choice Plants for the Shade" described desirable Japanese and Asiatic plants which shared genera with North American plants—he grew them all in his Larchmont garden (Vol. 28[4],1970).

His beautiful garden, 'La Rocaille', which he describes as a shady woodland rock garden, "*continuously being improved*," has been visited and appreciated by innumerable people in the last 50 years. Harold's most recent contribution to the *Bulletin*, "Saga of a Woodland Garden," written in 1991, describes the creation and development of his garden.

Harold Epstein was one of the members of the committee appointed to choose the location for the ARGS 50th Anniversary meeting. He, John Wurdack, and Frank Cabot travelled to North Carolina in 1982 and decided upon the Asheville area for the meetings and tours. Harold's other horticultural activities included membership in the Hortus Club of New York, an organization he formed with Tom Everett. He served as its President for fourteen years. He was also a member of the Orchid Society and the Horticultural Society of New York.

When ARGS Regions were designated Chapters in 1972, the North Atlantic Region was divided into the Connecticut, Long Island, and Westchester Chapters. The Westchester group disbanded almost immediately, and Harold Epstein invited all interested New York and New Jersey members to join a "New York-New Jersey" Chapter. The name was changed to the Hudson Valley Chapter several years later. Harold continued to be active in the Chapter; he was Editor and then Corresponding Editor.

Harold was the driving force behind two important projects: An introductory pamphlet of rock gardening for which he found a text by the late T. H. Everett, was produced by the Hudson Valley Chapter in 1993. Second, *Rock Garden Plants of North America—An Anthology from the Bulletin of the North American Rock Garden Society* was published in 1996, originally inspired by Harold. To determine if such a project would be feasible, Chairman Tom Stuart invited comments from members. Among those replying was Joan Means, who, after reviewing the past history of ARGS, wrote of the many changes in the Society and the *Bulletin* since the beginning, and said of Harold:

> *"It seems incredible that one man, and his garden, should span all these decades of change, but of course, Harold Epstein did, and still does. Sometimes we forget how well he nursed ARGS through hard times, and how gracefully and well he has adapted to us and these better times for ARGS."*

Harold Epstein remained an active member of ARGS, attending study weekends with his wife until her declining health made travel too difficult. He died at his home July 8, 1997, at the age of 94.

Marnie Flook is Archivist for the North American Rock Garden Society. This article is adapted from a chapter on the Presidents from *A History of ARGS* being prepared for publication. Marnie gardens in Chestertown, Maryland.

[Editor's Note: We have learned that Harold's home and garden will be sold, and that a buyer with horticultural interests is being sought. For information, please fax (914) 723-0920.]

Felicia filifolia (p. 262)

Glumicalyx sp. (p. 259)

View near Witsieshoele (p. 262)

Semonkong area with falls (p. 260)
photos by Dick Bartlett

Sani Pass Road (p. 258)

Sandersonia aurantiaca (p. 258) photos, Dick Bartlett

Lotononis galpinii (p. 262)

Sutera jurassica (p. 258) photos, Dick Bartlett

Escarpment above Witsieshoek photos, Dick Bartlett

Crocosmia pearsii (p. 286)

DRAKENSBERG OR BUST:
A SOUTH AFRICAN PLANT ADVENTURE

by Dick Bartlett

On 2 January 1997 my wife Ann and I left Denver to join up with an Alpine-Garden-Society-sponsored tour departing from London. Once assembled, the group flew to Durban, South Africa to start a journey circling the Drakensberg via Lesotho. It is impossible in this short article to reproduce all the visual images and impressions gained from a two-week trip to this strange and unfamiliar landscape. The wildflower diversity of South Africa is reputed to be the greatest in the world, and it appears we took pictures of as many as 150 identifiable species; I will not attempt to describe all of them to you. In fact, there will be many fascinating and beautiful plants which must be omitted if you, dear readers, are expected ever to finish this article.

Quickly, to give you some idea of our tour route, I will list the places we stayed and let you connect the dots—so break out your maps, or consult mine on p. 261. Lesotho is an independent kingdom within east-central South Africa. The Drakensberg forms a sort of bracket-like boundary to eastern Lesotho. Your map should include our starting point, the area of Sani Pass, a valley running east to west up the face of the escarpment. The gravel road westward through this pass is the only access from the Natal into Lesotho over the mountains. We stayed four nights at Sani Pass Lodge at the mouth of the valley. After the last day there, we traveled south and west, clockwise, to Rhodes, a small town and a hard place to locate on your maps. Shifting there to four-wheel-drive vehicles, we followed a rough, northerly road to the ski resort of Tiffindell, where we stayed two nights. From here we crossed the Lesotho boundary on its western edge at Wepener, then on to Mazenod. Mazenod is southeast of the Lesotho capital of Maseru, and from the former town we traveled southeast to Semonkong in the interior for two more nights. Backtracking from here and passing through Maseru, we now swung north from 10 on the clock's dial, to 12 to reach Butha-Buthe and continue on east to the New Oxbow Lodge. This lodge is the only structure at Oxbow, a narrow mountain valley at the northern end of the Drakensberg. After two nights here we went back to Butha-Buthe to cross the northern border back into South Africa.

From the border crossing we traveled due east to have lunch in the Golden Gate Highlands National Park (and game reserve) and to reach our last destination at Witsieshoek Mountain Resort, southeast of Bethlehem. Two nights there, then back to Durban to complete our clockwise circle and for some of us to meet our flights home. Each day in the Sani Pass area we crossed back and forth into and out of Lesotho, having our passports stamped by each country. This, combined with the two later border crossings, made our passports truly look like those of world travelers.

As we bounced along in our high-wheeled powerful truck up the twisting gravel road (photo, p. 254) to Sani Pass in the lush, green, grassy portion of the lower valley, we first stopped to see *Protea* trees. But nearby was discovered *Watsonia*, and of even greater interest, *Sandersonia aurantiaca* (photo, p. 254) under a cliff. This is a 36" plant with orange, bell-shaped flowers along its stems—everyone was very excited. In this lower, wider portion of the valley using binoculars we could see baboons in the distance—but more about them later. After crossing several streams, a few with small waterfalls, the road increasingly steepens and twists. Approaching the top, the road becomes ridiculous, swinging almost back on itself, and the truck kicked out rocks with its spinning tires. In this part of the valley, the two most prominent plants are *Helichrysum trilineatum* (which has several forms) and *Euryops tysonii*, both medium-large bushes with yellow flowers. The *Helichrysum*, with its finer foliage and clusters of round, ball-like flowers, is slightly more abundant. *Euryops tysonii* has column-like stems with whorled foliage topped by its daisy-like flowers.

This first day we went right past the level summit of the pass and on to Black Mountain to see the tundra plants right from the start. After seeing the "ho-hum" buns of *Helichrysum sessilioides* in the outcrops, we were thrilled to see *H. milfordiae*. This is a very silvery, fuzzy-foliaged *Helichrysum* with reddish buds that open into white, daisy-like flowers. Nor should one forget to mention *H. marginatum*, with its larger plant body, slightly larger, white flowers, and its folded foliage with silver margins.

There were on Black Mountain plenty of *Crassula*, *Delosperma*, and *Wahlenbergia* about, but what caught out interest most was *Sutera jurassica* (photo, p. 255), a low-sprawling plant with 5/8"-wide, violet flowers. The five petals were partially connate, and the corolla had a central yellow eye. This plant is evidently locally endemic, or at least more commonly found here than elsewhere. Shortly below Black Mountain was a sloping, marshy area with many choice, wet- loving plants. Just beyond the wettest area was *Diascia barberae*, with four, small, upper petals and one large lower one, all salmon in color. And across the road was a huge field of *Kniphofia caulescens*, the red-hot poker.

The next day we were driven to the top edge of the pass, and after some botanizing many of us walked back down—some farther than others. On a meadow behind the higher guard station, a *Romulea* (possibly *R. rubella*) was pointed out to me. This curious, inch-high flower with six pink petals can appear in two different ways, either as the normal, sharp, six-petaled, miniature, crocus-like flower; or, if three of the petals overlap a second corresponding set of petals, then it appears as an apparently triangular, three-petaled, flower. Our local tour leader David McDonold and I discovered a superb carpet plant on our walk down. The plant stood not more than

more than one half-inch off the ground and had *Astragalus*-like, yellow flowers: it is the ideal rock garden plant. At home, after consulting source books, we decided that it may have been *Lotononis humifusa*. Also on our way down we saw and pointed out to others *Harveya laxiflora*, a semi-parasitic, pink-flowered ground plant that lacked foliage at this time.

On our last day at the Sani Pass area, we spent the morning on the flats adjacent to the crest of the pass, near the chalet that is maintained there. We looked at fields and fields of white to light pink *Rhodohypoxis baurii*, very low to the ground, and we were astounded to find one single, dark wine-colored, red one. But the best photographic find was *Moraea alpina*, with three lavender petals and only 2" tall. Each petal, near its throat, has an area of yellow rimmed with white. That afternoon, halfway down the mountain, we visited *Protea dracomontana* on the grassy slopes. It is not a tree, but a single-stemmed plant with cream-and-pink flowers. In some blooms there were scarab beetles. Oh, I almost forgot the pineapple plant! *Eucomis autumnalis* (which I at first thought began with "U") is named for the topknot of foliage above the flower parts. The weakly yellow-green flowers form the "pineapple" body, held on a 5" stem. The basal leaves can be a foot long on each side of the inflorescence, and they have heavy central veins and are thick and leathery.

It is time to talk of our travel and transportation. There were 22 of us, including David and Peter Erskine, the former our local expert and the latter our English organizer. Our transportation was a 44-seat bus—so we all had plenty of room—with an automatic transmission with a mind of its own on steep grades. Our bus driver was about 70 years old—the oldest of our tour group! We were scheduled to visit Naude's Nek (a good area for botanizing) on the way to Rhodes. Imagine taking a large touring bus over rough back roads. Well, we did it at 10 o'clock at night! Needless to say, we did no plant hunting there. After arriving at Rhodes, as I said before, we switched to four-wheel-drive cars and were relayed to Tiffindell Resort, 30 minutes away. Our last arrival got to bed at 2 am. Now, this is not to go into great detail about walking up hills so the bus could make it up, putting rocks in low spots so the bus could get over them, several flat tires, and an adventure with a flat bed truck which blocked the roadway so we could not pass. But I have no complaints: I enjoyed every minute of it.

The ski resort was very nice, having very good accommodations, with plenty of places to put your ski boots and skies—except the snow was in the northern hemisphere in January. Actually, the wildflowers were marvelous, and we all spread out, climbing the slopes at our own individual pace. Lower down were *Dierama*, some *Kniphofia northiae*, and other goodies. Part way up was *Erica algida*, and farther on *Osteosperma*, often confused with the *Senecio* species nearby. Coming upon a droopy-headed, cluster flower, with downturned, rust-colored, miniature trumpets, we recognized the plant and gave it my favorite Latin plant name, *Glumicalyx* (gloomy calyx to me, photo, p. 253). But was it the common *G. nutans* or an endemic to the Ben McDhui Mountains, either *G. apiculans* or *G. goseloides*? It seemed different, being smallerthan *G. nutans*, with different foliage and with much smaller flower heads.

Once I reached the ridge, I looked up along it to the peak above and seemed to see two people already up there. On arriving at the peak, the two

"people" turned out to be two stone columns. However, AGS travellers preceding me did point out the location of *Cyrtanthus flanaganii*, just below the rock cliffs at the top. Here we have a 20"-tall scape with an umbel of pale yellow trumpets. These flaring trumpets end with six pointed lobes at the summit of the tube and made it a real charmer. A fence on this peak, running along the ridge, separates the Natal from Lesotho to the north.

In South Africa we saw at least two species of *Oxalis*. *Oxalis obliquifolia* is differentiated by green lines marking its pale yellow throat; Ann photographed it on these ski slopes. *Oxalis smithiana*, on the other hand, has a darker throat with some orange markings.

At the end of each day we discussed our sightings and attempted identifications. Someone had found a nice seven-headed, white-and-pink orchid that first was thought to be *Brownleea recurva* but turned out to be *Disa crassicornis*, one of many such orchids seen.

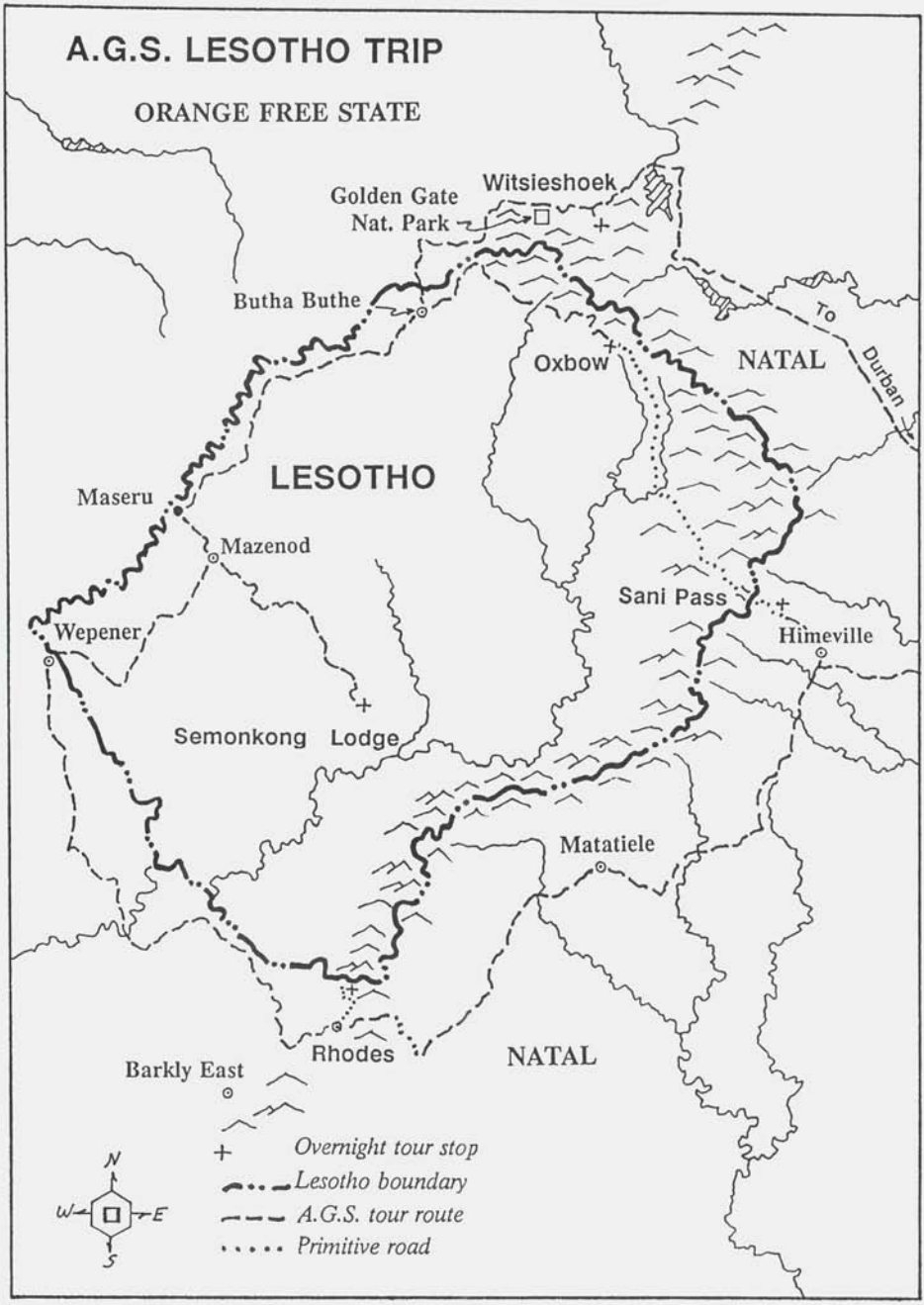
On to Semonkong (photo, p. 253). The rooms here were thatched huts with stone walls, very similar to what the natives would live in, minus electricity and other pleasantries. It should be noted, however, that bugs were known to drop from these picturesque thatchings at night! We will discuss two plants seen here, and then I will move on to something else.

This location is noted as one of the infrequent sites of *Aloe polyphylla*, a very attractive *Aloe* with large, dense rosettes of spiny foliage and pink flowers that appear in October. It is the tight, compact swirls of thick, hard leaves that make it so appealing. Ann and I chose, rather than to see these, to instead be among those who went to see the falls at Semonkong, reported to be the second highest in Africa (or was it South Africa?) In any case, at the overlook to Maletsunyane Falls was the very strange *Pelargonium sidoides*. It was about 14" tall, with typical, ruffled, geranium-like basal leaves. But, oh, the flower...! On the naked stem were five very black, fully 1"-long, narrow (less than 1/4"), strap-shaped petals, with a central orange eye. It looked more like a black, five-legged bug at the top of a stem than the flower it was.

The Lesotho people are very handsome. They are much taller than the Natal blacks, have more elongated facial features, and are graceful-looking. In the interior, where they ride magnificent ponies, they wear gorgeous woven blankets with geometric designs. One common design is of a stylized ear of corn. You must understand that Lesotho is one of the poorest countries in the world. The people live in small, thatched- or corrugated-roofed huts without toilets, electricity, or running water. They are very friendly, and we had several conversations with them, some by sign language. Around their villages are extensive patches of *Agave americana* (century plant), imported from South America generations ago.

Oxbow is just on the other side of the pass in a rather deep, narrow valley in quite mountainous country. The lodge borders on a good-sized stream, not too large too wade across. If you were to complete the journey from Sani Pass road to its terminus, you would end up at Oxbow. Again the accommodations were thatched-roofed for some of us, but with much more room and with hot water and bathtubs.

The first day we walked down the road half a mile to a bridge crossing the stream, and then we climbed up the mountains. What did we find? To mention but a few: a white *Delosperma*,


A.G.S. LESOTHO TRIP
ORANGE FREE STATE
Golden Gate
Nat. Park
Witsieshoek
Butha Buthe
Oxbow
NATAL
To
Durban
LESOTHO
Maseru
Mazenod
Wepener
Sani Pass
Himeville
Semonkong Lodge
Matatiele
Rhodes
NATAL
Barkly East
N
W
E
S
Overnight tour stop
Lesotho boundary
A.G.S. tour route
Primitive road

Phygelius capensis (which I want to grow), *Papaver aculeatum* and *Hirpicium armerioides.*

Two others I will describe in detail. First, higher up was *Albuca setosa*, a bulb with down-turned, orchid-like flowers, each having three coalesced petals forming a central bowl and three corresponding flat-out, open petals above. The raceme, about 10-12" tall, bore non-showy flowers, each pale yellow with a wide, green stripe running along the center of all six petals.

Berkheya multijuga, found lower down at this location, is an interesting compromise between a large daisy and a thistle. The foliage is very thistle-like, with all of its disadvantages. The inflorescence is a many-rayed, composite-like head with a typical central disk. The rays are most commonly yellow but can be lavender or white, also. What interests me is that after the flowers are finished, there remains a central black disk suggestive of the compound eyes of insects. Around this disk (receptacle) remain the thistle-like bracts reminiscence of those of a dried *Carlina acaulis.*

Our second day out of Oxbow we were rained out in the afternoon, yet we did get to see some good plants earlier in the day. We took the bus up the gravel road that leads back to Sani Pass to the first tundra-covered pass about three miles away. On the way, we passed some cliff faces with several large, red blotches hanging from them, but the bus was not ordered to stop. After lunch, and from the pass, several of us decided to walk back to see the red blotches, obviously some wonderful choice plant. But as we made our way the sky got darker and darker, until just short of our objective rain poured down. The plants were 3-4'-long clumps of hanging *Delosperma cooperi*, whose flowers by then had all closed in the twilight. I did, however; manage to get a picture of a small section that had not yet closed.

Earlier that morning we did get to see *Felicia filifolia* ssp. *filifolia* (photo, p. 253) and *F. uliginosa*. *Felicia filifolia* is grown in England I've been told, and perhaps in Denver by some. *Felicia uliginosa* does not have the grasslike foliage, but it also is choice because of its daisy petals backed with rust-red or maroon.

One last plant seen here, and often elsewhere, proved itself particularly successful at the pass, having perennial stems nearly a half-inch thick. *Lotononis galpinii* (photo, p. 255) is a favorite of mine because of its prostrate habit and rich blue, Astragalus-like, stemless flowers, but it may not be special for everyone. Here I joked to all those present that this plant must have been 300 years old.

Golden Gate Highlands National Park has small, but very swanky, pseudo-thatched huts for just a few visitors, but we were just passing through. As for the wild game preserve, we only saw four-footed grazing animals, all too distant to really appreciate them properly.

At Witsieshoek Resort, the attractions are being able to look down much of the length of the Drakensberg escarpment (photo, p. 256) and the prospect of climbing an iron ladder to Sentinel Peak just up the road. Upon unpacking our luggage in our triplex accommodations and looking out the windows, we discerned a large, spherical, red plant. Every task was dropped as we rushed outside with cameras to close in on *Brunsvigia grandiflora*. The inflorescence is composed of spokes radiating in all directions, forming a 16" ball (umbel). At the end of each spoke is a flared, red, trumpet-

—continued on p. 286

THE PAMIR PLATEAU:
A DAY ON THE SLOPES OF MUSTAGH ATA

by Hans Sauter

I first learned about Mustagh Ata when I was nine years old; and fifty-eight years later I saw it.

I read about the mountain in Sven Hedin's autobiography (*My Life as an Explorer*), and Central Asia held me in thrall ever after. Over the years, I read every book I could find that dealt with that part of the world, and studied maps, and imagined myself traveling there, in the footsteps of Hedin and Aurel Stein and other explorers, to say nothing of their predecessors over the centuries—traders on the old Silk Road, Chinese Buddhists on pilgrimage to India, the Polos, myriad unsung wayfarers—but it all seemed destined to remain a dream. For much of my life, the mountains and deserts of Central Asia were locked away behind the Iron Curtain; and when, circa 1980, it became possible again for Westerners to travel in China, work and family had priority for me over such exotic yearnings.

But one day in the summer of 1995 Coleman Leuthy told me about a trip which Keren Su, a noted adventure traveler, photographer, and artist, China-born but now living in Bellevue across Lake Washington, proposed to lead along the Silk Road the following year. My family all encouraged me to go, and so I went, with Coleman and a small group, seven people in all.

We flew from Seattle to Beijing on 15 July 1996. Over the next month our itinerary included Xian, Dunhuang, Jiayuguan, Hami, a yurt camp in the valley of Barkol, Turfan, Urumqi, Heaven Lake in the Tien Shan mountains, Kashgar and environs. Then we drove up the Karakoram Highway over the Pamir Plateau to the Khunjerab Pass into Pakistan, and down the Hunza and Gilgit Rivers to the Indus, and ultimately to Rawalpindi and Islamabad; we flew home via Bangkok and Taibei on 16 August.

The focus of the trip was on the standard sights, no less fascinating for being standard; and on the people, local color, customs, daily life, food (wonderful nearly everywhere), and, above all else, the old and wide and fabulous lands—the deserts and ranges of Inner Asia, fraught with thousands of years of turbulent history.

But on three occasions, Coleman and I took day hikes in search of views and plants. The first was on a rainy day in the Barkol Valley, steppe coun-

try north of the Kerlik Tag, the easternmost outlier of the Tien Shan. Next, in the Tien Shan above Heaven Lake, near the city of Urumqi, but also near Mt. Bogdo Ola, the highest summit of the eastern Tien Shan. Finally there was a day in the Pamirs, next to my old Holy Grail, Mustagh Ata (the name means "ice mountain father," photo, p. 265).

From Kashgar at 4,400' elevation, the Karakoram Highway climbs through the defile of the Gez River, one of the fabled routes of Inner Asia, to the Pamir Plateau above 10,000', entering a high desert of vast marshes and huge sand dunes, with wide vistas over into the "Russian" Pamirs to the Northwest, nowadays in Tajikistan. All the way from Kashgar there are ever-changing views of the Kongur Massif, the northern bastion of the "Chinese" Pamirs; but as one travels southward along the high marshes of the plateau and rounds a bend in the highway, there is Mustagh Ata—after all these years—a mountain that looks like the essence of what a mountain ought to look like. Another hour, and we are at the yurt camp on the shore of Lesser Karakul Lake, between Kongur and Mustagh Ata, at an elevation of 12,000'.

Next morning our bus headed for the Kirghiz village of Subash, which the rest of the group wanted to explore. Coleman and I got off the bus a mile short of Subash, which with its earth-hugging and earth-toned buildings seemed a proper part of the landscape. We squished across some marshes; beyond the village, where very few people stirred, we entered a draw that climbed into the brown hills to the south. Our goal for the day was this ridge. For now it blocked our view of Mustagh Ata, but as we rose higher the land unfolded for us in soul-stirring ways.

The day was sunny, the air bracing but not cold, and we seemed to have the world to ourselves. The bus was a long ways off in the valley (stuck in a swamp, as we later learned); far above us in the draw, a man and his camel went up and gradually out of sight. There was no one else about.

Slowly we made our way up the ravine. Some of these hills are grazed by horses, yaks, and camels, but there were plenty of plants to see and to photograph. And on that day there were no animals about. Lower down we mostly saw two different species of *Allium*, a pea of some kind, a white *Dracocephalum heterophyllum* (photo, p. 266), and several species of *Astragalus*. When we got to the first crest of hills (which rise in progressive tiers toward the Ice Mountain Father), we saw species of *Potentilla*, *Acantholimon* (photos, p. 268, 267), a lone, exquisite dandelion, and some crucifers.

From the first ridge crest, we looked back towards the lake, and across to Kongur, and over along the course of the Gez River to yesterday's marshes and dunes, and the Tajikistan Pamirs a hundred miles away—the most immense landscape we had ever seen. To the south, much closer now, the glaciers of Mustagh Ata (24,758') began to emerge, and we could see the cordon of connecting mountain ranges leading in an arc from Mustagh Ata to the Kongurs, above a grand, arid upland cleft by a deep canyon to the east.

The fellfield on which we were walking now was covered by patches of *Potentilla* and *Astragalus*, with other plants scattered here and there. We climbed through the same plant community up another slope to the next ridge above. But along this trek we also came across a *Saussurea* (probably *S. gnaphalodes*) and, climactically, an exquisite cushion of *Androsace chamaejasme* (photo, p. 265).

Mustagh Ata, Ice Mountain Father (pp. 263, 264) photos, Hans Sauter

Androsace chamaejasme on slopes below Mustagh Ata (p. 264)

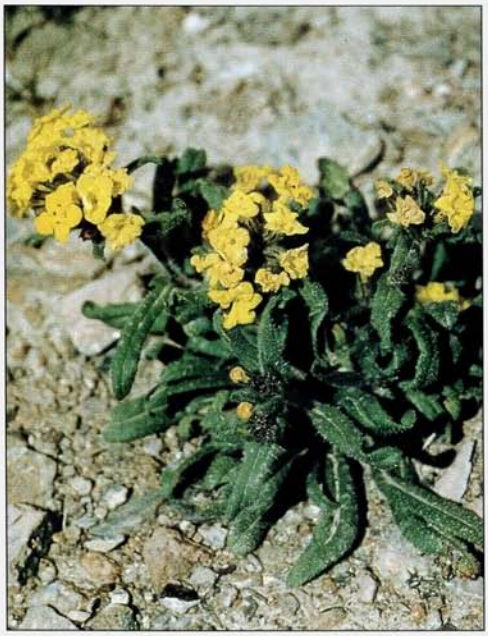
Dracocephalum heterophyllum (p. 264)

Rheum cf. *kialense*

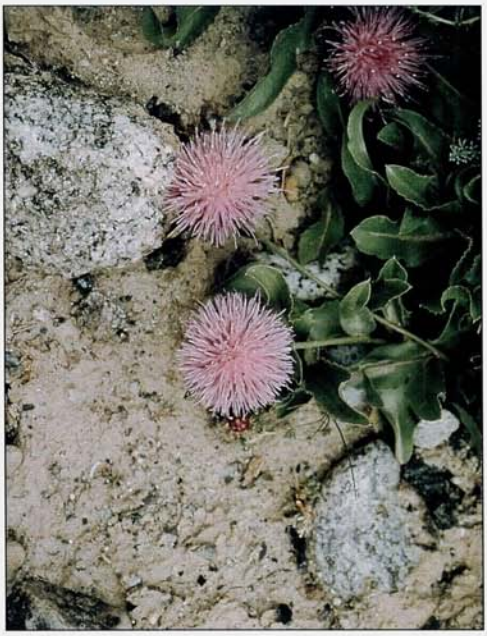
Acantholimon sp. (p. 264)

Coleman Leuthy

Arnebia guttata (p. 269)



Jurinea sp., Upper Tashkurgan River
photos, Hans Sauter



Hunza River Valley just above Sust, Pakistan, in the Karakoram Range

Potentilla multifida? (p. 264) photos, Hans Sauter

It was slow going, although both Coleman and I were surprised that the altitude did not affect us adversely. By my altimeter we climbed 2,300' above the level of the lake, which would put our high point at about 14,300'. Photographing plants, and admiring them, and looking at the unbelievable scenery took a lot of time. Finally, in midafternoon, we got to our farthest ridge, and we sat and tried to absorb the vast landscape surrounding us. The Roof of the World, they call it—and from the knot of the Pamirs all the big mountain ranges of Inner Asia radiate outward—the Tien Shan, which we had seen; the Kun Lun, between the Tarim Basin and Tibet; and the Karakoram, the Himalaya, and the Hindukush, all three of which we were at least to glimpse in the days to come—this was one of those hours for which life is made. And then we slowly and cautiously picked our way down a different drainage. We were rewarded with an unexpected new plant, *Arnebia guttata* (photo, p. 267). Once back down on the plain, we had to walk a road skirting the base of the hills over to the village, slosh through the marshy meadows to the spur road, and walk the highway another couple of miles to the yurt camp, where we arrived just in time for a good dinner.

Coleman has formal training in botany and is an expert on mycology and alpine plants. I am an amateur, with no botanical expertise. But expert or amateur, on our hikes we keenly felt the lack of available guidebooks for the flora of the Central Asian mountains. With few exceptions, in the field we were lucky to get to the genus of a plant; sometimes the family would have to do. The day after our Pamir hike, at the little museum in Tashkurgan, the last town in China this side of Pakistan, we found a small herbarium display which gave us a few specific names for our plants. Later on, in Islamabad, I found *Wild Flowers of Pakistan*, edited by T. J. Roberts and newly published by Oxford University Press. This, and Polunin and Stainton's *Flowers of the Himalaya*, suggested a few more names for plants we had seen in the Pamirs and the Tien Shan. Finally, I came across Chris Bonington's *Kongur—China's Elusive Summit*, which has a list of plants known to have been collected in the Kongur-Mustagh Ata area, and which named our *Saussurea* and *Androsace* for us. But a field guide for the mountain plants of Inner Asia would have been a wonderful tool. So far it does not seem to exist.

Plainly, we only managed to get the barest glimpse of the flora of these mountains. However, it appears as if the Chinese Pamirs, in particular, may not have been fully explored botanically. Christopher Grey-Wilson, in his botanical notes in "Fauna and Flora of the Konsiver Valley," (Appendix IV to Bonington, *Kongor*, p. 201), discusses this problem in terms which would deserve to be quoted in full, were it not for considerations of space:

"...The flora of the extreme western part of Xinjiang Province is scarcely known and any collection of specimens from the region is certainly of great interest to botanists...The flora is not rich, indeed it is rather depauperate, as one might expect from such a high and remote area where the extremes of climate, the short summer and rather low precipitation preclude all but the hardiest plants. The plant communities are sparse, often composed of scattered individuals...however, the region has a unique flora, a mixture of local endemics and widespread temperate montane species which occur from the European mountains east to China and Japan and including the drier parts of the Western Himalaya."

This was published in 1982; more

work must have been done in the region since, but much of the information may not have been diffused beyond the herbaria of academic institutions. I hope that some day there will be a comprehensive guide book on the plants of the Central Asian mountains. In the meanwhile, Coleman and I will cherish our memories of a few stellar hours on top of the world.

Notes: We wish to acknowledge the invaluable help of Jerry Flintoff, who provided names for a number of our plant photographs.

Coleman Leuthy is an avid mountaineer, botanist, and mycologist. He lives in Seattle and has a farm on Eagle Creek in the Wenatchee Mountains.

Hans Sauter, who admired mountain plants but did not know them, was signed up by his wife Lyn for Dr. C. Leo Hitchcock's plant identification course in 1968, and he became a dedicated gardener. Lyn and Hans were recruited for the American Rock Garden Society by Frances Roberson more than 20 years ago. They grow Northwest native plants, ericaceous plants, alpines, and almost anything they can cram into their small garden in Seattle.

Anyone who wishes to become irretrievably fascinated with Central Asia might want to look at a few of the books listed below.

Bonington, Chris. 1982. *Kongur—China's Elusive Summit.* Hodder and Stoughton: London.

Buckley, Michael, et al. 1994. *China—A Travel Survival Kit,* Fourth Ed. Lonely Planter Publications: Hawthorn, Australia and Berkeley, California.

Grousset, Rene. 1970. *The Empire of the Steppes,* Rutgers University Press: New Brunswick, NJ. Hedin, Sven. 1996. *My Life as an Explorer.* Kodansha International: New York. (reprint of ca. 1925 edition)

Hopkirk, Peter. 1984. *Foreign Devils on the Silk Road.* University of Massachusetts Press:Amhearst, MA.

King, John. 1993. *Karakoram Highway—A Travel Survival Kit.* Second Ed. Lonely Planter Publications: Hawthorn, Australia and Berkeley, California.

Mirsky, Jeannette, Ed. 1974. *The Great Chinese Travelers.* University of Chicago Press: Chicago and London.

Stein, Sir Aurel. 1974. *On Ancient Central-Asian Tracks.* University of Chicago Press: Chicago and London.

OREGON'S WESTERN CASCADES

by Loren Russell

A first-time visitor to Oregon, flying into Portland or Eugene, will be struck by the snow-covered volcanoes of the Cascades: Hood, Jefferson, the Three Sisters and others. These peaks, rising from a high volcanic plateau, mark the young and geologically active High Cascades. To the west of these volcanoes, a landscape of ridges and valleys covered by coniferous forest and clearcuts stretches toward the Willamette Valley. This region, the Western Cascades, is the eroded remnants of a much older volcanic range. Though less imposing than their younger neighbors, their flora is richer and more accessible and will be the focus of the 1998 Annual Meeting.

The Western Cascades extend from the Columbia River south nearly to the California-Oregon border, a distance of 230 miles, with a width of about 25 miles. The ridge crests average 4,900' elevation through most of the range, with only a few summits exceeding 5,800'.

Precipitation above 4,000' averages 80-90" annually, with most of this falling as snow between October and April. The climate has a strong maritime influence. Even at the summits, warm Pacific storms can melt most of the snowpack in midwinter. As I have seen on ski trips, plants in sites ranging from ridge top to forest floors may be exposed to freeze-thaw conditions at any time in the winter. Conversely, "snow-beds"—north-facing slopes and depressions where snow cover is reliably deep—are frequent and have a distinctive flora.

The fate of old growth forests of the Western Cascades has been a central environmental issue over the past 15 years. Much of the area was clear-cut during the 1980s, before logging restrictions were applied to protect the northern spotted owl, and more recently, to protect fish habitat. Despite the scale of logging, there are few concerns for the vascular plants of the area. Surprisingly, most of the plants of this heavily forested region occur in open habitats—meadows, outcrops, wetlands. Ross and Chambers (1988) note that 95% of the Western Cascades flora occurs in open habitats, though these habitats represent less than 5% of the area.

All of the field sites to be visited during the Annual Meeting are in the central Western Cascades, in the area

drained by the upper Willamette River and two of its major tributaries, the McKenzie and Santiam rivers. The flora of this area is well known, and Hickman (1968) provides checklists for 28 peaks in the central Western Cascades. The two Annual Meeting field sites described here each have published floras: the Ross and Chambers book (1968) is based on Iron Mountain and Cone Peak, and the flora of Fairview Peak is described by Baker (1951). More current unpublished lists are available for several localities in the region, as part of the on-going Oregon Flora Project. The hiking guide by Sullivan (1991) gives excellent descriptions of both field sites, as well as of other Western Cascades mountains mentioned below.

Iron Mountain/Cone Peak

Iron Mountain (5,455'), just north of Tombstone Summit on Oregon Highway 20, and 55 miles northwest of Eugene, is one of the best known wildflower sites in Oregon. The short hike to the summit fire lookout was my introduction to the wildflower displays of the Western Cascades. A coworker told me about it, saying that "at least 50 kinds" of plants were in bloom. I discovered that he was off by a factor of three! Frequent newspaper and magazine articles and mentions in hiking guides, the easy highway access, and short hike all contribute to this being a popular destination, but the reputation of Iron Mountain is well-deserved. The most plant-casual visitor is impressed by the annual displays dominated by *Penstemon rupicola* (photo, p. 274) on the summit outcrops, by *Delphinium menziesii* (photo, p. 276), *Ipomopsis aggregata, Castilleja hispida* (photo, p. 275), *Orthocarpus imbricatus, Penstemon procerus* var. *brachyanthus* (photo, p. 274), and *Calochortus subalpinus* (photo, p. 275) in dry meadows and screes, and by *Aquilegia formosa, Polemonium carneum, Mertensia paniculata,* and *Lilium washingtonianum* (photo, p. 274) in moister meadows and brush fields.

There is much more here for the plant-lover. The outcrops also are home to *Arenaria rubella, Saxifraga bronchialis* and *S. caespitosa, Trifolium productum, Polemonium pulcherrimum, Castilleja rupicola,* and *Penstemon deustus.* Ferns, especially *Aspidotis densa, Cheilanthes gracillima, Cryptogramma acrostichoides,* and *Polypodium hesperium* are abundant in crevices. Snow beds and cold forest sites offer *Erythronium grandiflorum, Claytonia lanceolata, Dicentra uniflora, Nothochelone nemorosa,* and *Pedicularis bracteata* var. *flavida,* as well as the uncommon, lovely, *Mertensia bella,* though many of these are finished blooming by early July. Perhaps the most distinctive habitat here is the rocky snowmelt seep, with its assortment of "belly flowers"—yellow flushes of inch-high *Mimulus guttatus,* with a sprinkling of larger ephemeral perennials including *Saxifraga integrifolia, S. occidentalis, Delphinium menziesii,* and *Zygadenus venenosus,* and myriads of tiny *Mimulus breweri, Lewisia triphylla, Allium crenulatum, Romanzoffia thompsonii* (one of the few regional endemics), and others. Nearly 400 species of vascular plants are recorded on Iron Mountain's mosaic of forest, meadows, outcrops, and seeps.

To the northeast of Iron Mountain, Cone Peak (5,646') and Echo Ridge (photo, pp. 275, 276) may be reached by cross-country travel from the Cone Peak trail. Several plants not found on Iron Mountain can be found in the south-facing meadows of Cone Peak, including *Ivesia gordonii, Monardella odoratissima, Brodiaea congesta,* and *Brodiaea hyacinthina.* On the summit

Douglasia laevigata on Cone Peak (p. 272) Rick Lupp

Clarkia amoena, on lower western slopes of Bohemia Mt. (p. 278) Loren Russell

Penstemon rupicola on Mt. Hershberg (pp. 272, 282) Loren Russell

Penstemon procerus var. *brachyanthus* on Cone Peak (pp. 272, 282) Loren Russell

Lilium washingtonianum on Bohemia Mt. (pp. 272, 277) Dave Dobak

Echo Ridge (pp. 272, 277) from Cone Peak, with *Penstemon procerus* var. *brachyanthus* (p. 272), *Castilleja hispida* (p. 272) in foreground

Erigeron cascadensis (p. 277) with *Calochortus subalpinus* (p. 272) on summit of Bohemia Mt. (pp. 277-278) photos, Loren Russell

Echo Ridge from Cone Peak, with Mt. Washington in background. *Phlox diffusa* (p. 277) in foreground. Loren Russell

Delphinium menziesii in rocky seep on Cone Peak (p. 272) Rick Wagner

rocks is a highly variable population of *Douglasia laevigata*, almost at its range limit. *Douglasia laevigata* (photo, p. 273) is frequent in the northern Western Cascades. The southernmost known population is on Browder Ridge, two miles south of Cone Peak. As first noticed by Rick Lupp, of Mt. Tahoma Nursery, the Cone Peak population is heterostylous, with some 30% of individuals pin-flowered.

Echo Ridge, with an east-west orientation, provides refuge on its north slope to some species common at higher elevations in the High Cascades but rare in the Western Cascades, including *Luetkea pectinata, Phyllodoce empetriformis*, and *Gentiana calycosa*. On the south slopes of Echo Ridge is Echo Basin, one of the few permanently wet mires in this area of steep slopes and well-drained soils. The plants found here are typical of the mire habitat and include *Caltha biflora, Hypericum anagalloides, Viola macloskeyi, Dodecatheon jeffreyi, Mimulus lewisii, Pedicularis groenlandica, Habenaria dilatata*, and *Spiranthes romanzoffiana*. More surprising is the occurrence here of *Mimulus primuloides*, not previously recorded from the central Western Cascades.

Bohemia Mountain

Forty miles south of Eugene, the Calapooya Mountains, a spur of the Western Cascades, separate the Willamette and Umpqua River drainages. Bohemia Mountain (5,987') and Fairview Peak (5,987') are high points in this range. Over a century of gold mining here has left numerous mine shafts and claim markers, and even a small ghost town, giving the Bohemia district an old-West look lacking in most of western Oregon. This feeling may be contagious and have its Wild West consequences; on one of my visits, stray bullets from target shooters came too close for my comfort.

Neighboring mountains of strikingly different aspect, both Bohemia and Fairview are easily accessible from Bohemia Saddle. Fairview Peak, conical with a fire lookout tower at its summit, has extensive south-facing meadows. Bohemia Mountain, by contrast, is heavily forested, with cliffs on all sides of its rocky summit plateau.

Although one can drive to the summit of Fairview Peak, it is rewarding to walk the mile to the top. Road cuts provide habitat for a constantly changing floral display. Many species here are also common at Iron Mountain, like *Eriogonum compositum, E. umbellatum, Erysimum asperum, Lithophragma parviflorum, Gilia capitata*, and *Ipomopsis aggregata*. Some new species appear, however, notably *Viola sheltonii, Collomia grandiflora* and *Linanthastrum nuttallii*.

At a switch-back one-third mile from the saddle, it is possible to find *Gentiana calycosa* on north-facing rocks. The rare *Erythronium klamathense* has been recorded from slopes near here, but avalanche-lilies near the road are all *E. grandiflorum*. On the road-bank, luxuriant growth of *Dicentra formosa* belies its reputation as a shade-lover. In the meadows nearby, *D. uniflora* is often extremely common just after snow-melt. Farther on, shrubs including *Amelanchier alnifolia, Prunus emarginata, Ribes sanguineum*, and a few *Philadelphus lewisii* become more abundant, with *Thlaspi fendleri, Phlox diffusa* (photo, p. 276), and *Penstemon procerus* var. *brachyanthus* on open ground. The summit area, with lookout tower and parking lot, is badly degraded, but wonderful specimens of *Penstemon rupicola* and abundant *Lilium washingtonianum* (photo, p. 274) still reward, as does the magnificent view of the High Cascades volcanoes. At the east edge of the summit, a massive, contorted western yew (*Taxus brevifolia*) is

surrounded by a skirt of dwarfed hemlock; in crevices below, the rare *Erigeron cascadensis* (photo, p. 275) can be seen.

Returning to Bohemia Saddle, it's worth the short walk to the campground at the base of Bohemia Mountain. North-facing cliffs here offer one of the deepest snow-beds in the Western Cascades, and *Claytonia lanceolata, Erythronium grandiflorum,* and *Trillium ovatum* often are in bloom in mid-July. A water trail leads past mine-shafts to springs at the base of the cliffs. The cliffs here are covered with *Saxifraga mertensiana,* two look-alike mist-maidens, *Romanzoffia californica* and *R. sitchensis,* and *Stenanthium occidentale.* In the lush vegetation below the springs *Aruncus sylvester* puts on a show.

On the way to Bohemia Saddle from the campground, take a left onto the Bohemia summit trail. This rather steep, ridge-crest trail reaches the summit in less than a mile. The understory plants here are familiar, but *Gaultheria ovatifolia* deserves closer inspection. A short distance up, the trail crosses openings with outcrops and blocky scree. Several interesting plants occur here, including *Castanopsis chrysophylla; Montia parvifolia* var. *flagellifera,* its large pink flowers making it showier than the typical *M. parvifolia; Cardamine integrifolia* var. *sinuata;* and two honeysuckles, *Lonicera ciliosa* and *L. utahensis.*

The flora of the Bohemia region is at least as diverse as that around Iron Mountain, although it is harder to see most of the species occurring around Bohemia Mountain in a single day-hike. This area, well to the south and west of Iron Mountain, and located on an east-west trending divide, has a greater proportion of lower-elevation plants, and of plants with southern or eastern affinities. A few of these species, including some seen along roadsides near Bohemia Saddle, include *Calocedrus decurrens, Lupinus albifrons, L. lepidus* var. *lobbii, Whipplea modesta, Clarkia amoena* (photo, p. 273), *Aralia californica, Garrya fremontii, Phlox adsurgens, Agastache urticifolia, Penstemon rattanii, Campanula prenanthoides, Erythronium oreganum, Veratrum insolitum,* and *Iris chrysophylla.* Nearby, though not seen on Bohemia Mountain, are populations of bluebrush, *Ceanothus integerrimus,* and leopard lily, *Lilium pardalinum.*

Both Iron Mountain and Bohemia Mountain are centers of diversity within the Western Cascades. Both are ecologically diverse, though outcrops may be more diversified at Iron Mountain and moist sites better differentiated around Bohemia. Hickman (1968) found that these two peaks, and most other highly diverse peaks in the Western Cascades, share a number of features: they are composed of rock of moderately to highly porous (scoriaceous) texture; they have large, steep outcrop areas with south or west exposures; and they are not isolated from other summit areas.

Anyone familiar with western American plants will note that the Western Cascade flora is largely composed of widespread species. This is not surprising, since there are no significant barriers to dispersal either within the Western Cascades or between the Western Cascades and adjacent mountain regions. Additionally, there is little specialization in soil type within the region, since almost all soils are derived from basalt or andesite. (The most obvious substrate specialist in the region is *Kalmiopsis fragrans* [the "Umpqua form" of *K. leachiana*]. In its occurrence just a few miles south of Bohemia Mountain, it is confined to outcrops of

a hardened, porous volcanic tuff.) Early studies, including Baker (1951) and Hickman (1968), emphasized many disjunct species, but their claimed disjunctions emphasized absence of many species in the nearby, ecologically impoverished High Cascades. Further studies of the southern Western Cascades, with many more southern and eastern floral elements, will likely both reduce the number of apparent disjunctions and add to the number of species entering this region.

Even within the better-known central Western Cascades, there are a few odd occurrences. Several species occur only at one or two sites, including *Erigeron compositus*, abundant on Browder Ridge; *Helianthus cusickii*, occurring only on Bachelor Mountain, 20 miles north of Iron Mountain; and *Artemisia tridentata*, only on Rebel Rock, southeast of Cougar Reservoir in the McKenzie River drainage. Perhaps the most puzzling is the large population of *Campanula rotundifolia*, growing with *Gentiana calycosa* in blocky talus at Tidbits Mountain, exactly midway between Iron Mountain and Bohemia Mountain. The cosmopolitan harebell is seemingly otherwise absent from the Oregon Cascades south of the Molalla River drainage, reappearing in the Klamath Mountains. But why its occurrence at, and only at, Tidbits?

The 1998 Annual Meeting will feature tours of Iron Mountain and Bohemia Mountain, of a Western Cascades wetland, and of outstanding gardens in the Eugene area. The Emerald Chapter welcomes attendees for a great, floriferous Fourth of July.

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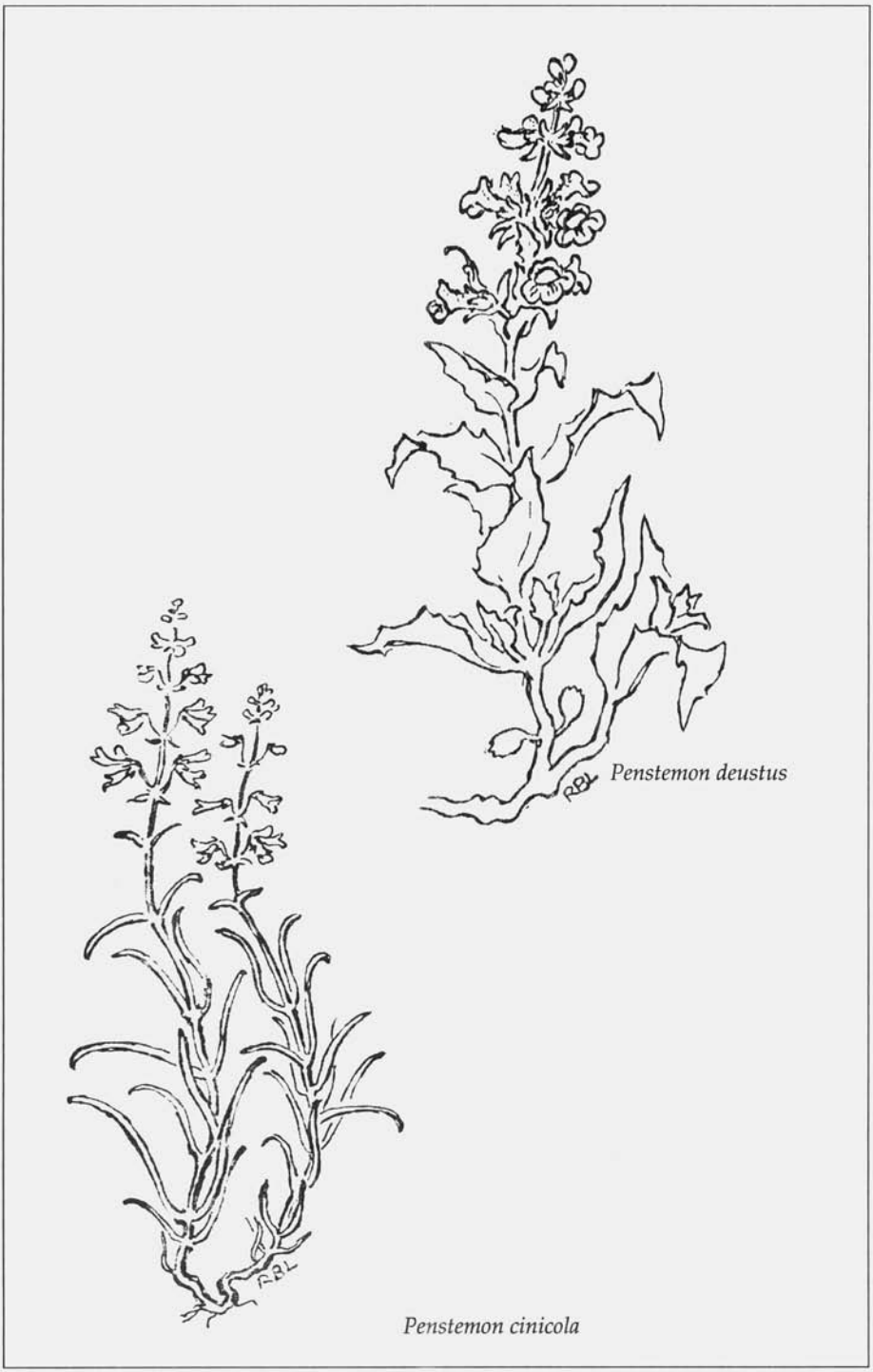

Penstemon deustus
Penstemon cinicola

PENSTEMONS IN OREGON

by Robin and Kenneth Lodewick

In July, in Oregon, penstemons in bloom are guaranteed. Forty-six species are native here—only five other states can claim more. At least four of our species are truly rare; some of the others hide in hard-to-reach areas. None are found on the floor of the Willamette Valley (where we live, 400' above sea level, in Eugene), yet a day's drive into the hills can show you a dozen species.

Why does Oregon have such variety? The reason is the number of climates and soils that meet here: West Coast wet, Cascade Range volcanoes, Great Basin desert east of the mountains. The diversity and abundance that brought explorers, fur-traders, immigrants—and botanists—to the Northwest in the 1800s still produce a tapestry of wildflowers today. Let's look at what you may find if you come to the 1998 Annual NARGS meeting.

The great floral displays are found above 4,000' in elevation. Three trips are scheduled up some of our medium-height mountains, west of the High Cascades. A half-dozen *Penstemon* species grow along the way. Since the greatest variety is found on the Iron Mountain trip, we'll describe that. Start up into the forest. The first species we're looking for, at about 1,800' elevation, is *Penstemon serrulatus*, called the coast penstemon. Its knee-high clumps, with broad, toothy leaves and candelabra-like heads of blue-violet flowers, colonize the road banks.

Farther north, this species descends to sea level, where it was discovered in 1792 by Archibald Menzies, the Scottish naturalist who sailed with Vancouver's survey ships. He found it, the fifth species of *Penstemon* ever collected, on the shores of what is now Vancouver Island. (Menzies also found the sixth species there, a tiny-leaved mat-former now known—after several name changes—as *P. davidsonii* var. *menziesii*. We may see its near relative, variety *davidsonii*, later on this trip.)

Before leaving *P. serrulatus*, look inside one of the corollas with a 10x magnifying lens. You will see the long, toothbrush-like staminode (sterile stamen) that is found only in genus *Penstemon* and a few close relatives, and the saccate (sack-shaped) anthers, opening part way from the inner end, that identify subgenus Saccanthera.

(Most members of the genus have boat-shaped anthers, which open from one end to the other.)

Higher up, at around 3,000' in elevation, on outcrops among the Douglas firs, appears a low subshrub bearing 1-2"-long, blue-purple or lavender flowers and dark, toothed leaves half that size. It, also, has an unusual anther, hidden in white wool. This is *P. cardwellii*, which spreads across much of the cut-over land west of the Cascades. Dr. James Cardwell, for whom it is named, was one of Oregon's first dentists and a founder of the state Horticultural Society; he drove an ox-team west over the Oregon Trail in 1852. Thomas Howell, who named the species after him, was a shy, self-taught botanist who came here by covered wagon as a boy, in 1850. After years of living in the wilds, digging plants and bulbs for Eastern collectors, he wrote, set type for, and printed the first *Flora of the Northwest*, including in it his new *Penstemon*.

Now let's go on up to the eroded, 5,000'-high summits of the Old Cascades. A hiker who takes the Cone Mountain-Iron Mountain trail comes out onto alpine meadows covered with *P. procerus* var. *brachyanthus* (p. 274, 275). This is one of the small-flowered penstemons, bearing dense clusters of half-inch-long, deep purple-blue corollas; sometimes a white form occurs here. Looking higher, where the trail switchbacks to the "rusted-iron" rocks at the pinnacle, one sees splotches of coral red. These mark the vertical mats of *P. rupicola* (p. 274). Its tiny, blue-green leaves and brilliant flowers make it our most spectacular *Penstemon*—besides being the flower most often met face-to-face by mountain climbers.

Whichever way you drive, coming down from Iron Mountain, you cross moonscapes of lava beds, with volcanoes in the distance. Stop at Fish Lake, where the highway crosses a lava flow, to find spreading mats of pale purple *P. davidsonii* var. *davidsonii* (and, if luck holds, dozens of tiny wild strawberries). We have now mentioned three members of the Northwestern, woolly-anthered penstemons (subgenus Dasanthera): *P. cardwellii*, *P. davidsonii*, and *P. rupicola*. You may see two more members of this subgenus later. All are subshrubs, often mat-forming, with evergreen foliage and colorful, large flowers; all are favorites with rock gardeners.

If time is short, you may need to go directly back to Eugene. Try to stop, though, to visit Sahalie and Koosah Falls, where you can lean over the railings and look down green chutes of McKenzie River water. In the spray beside Koosah Falls are stems of dark, holly-like leaves, bearing purple flowers. These are NOT *Penstemon*. They are plants of *Nothochelone nemorosa*, the single species of a genus which was removed from *Penstemon* for botanical reasons (such as chromosome number). These plants also have woolly anthers and long staminodes, but they are herbs that prefer growing in woods, unlike most penstemons.

On the other hand, what about the completely different penstemons in eastern Oregon? If you have time to explore farther, drive up again, cross the lava beds of the summit pass, and head down to where most of our small-flowered species grow. Most of the westside species so far seen have had leafy flowering stems, each with an open inflorescence of 6-10 large corollas. In contrast, most eastside species bear flowers about a half-inch long, tiered in dense clusters on a bare-looking stem.

Right at the pass, where the Pacific Crest Trail crosses the highway, take a short walk between the old lava flows,

through a stand of firs. Underfoot are tufts of blue-gray, glaucous, entire leaves, with slender stems of blue-violet flowers rising from them. This is *P. euglaucus*, which follows the crestline northward.

Driving downward, one enters forests of ponderosa pines, tall, yellow-barked giants set in park-like grassland. (At least, they should be in grassland; an invasion of weedy trees threatens to change plant habitat.) By turning off on side roads here, one may find openings with stands of slender, blue-violet *P. humilis*. An adaptable and variable species, it grows in deserts and mountain ranges all across the Great Basin.

Harder to find are two species with even smaller and narrower corollas, about one-third of an inch long. Both have narrow, linear leaves and tend to grow as single plants, about a foot tall. The first, *P. cinicola*, likes open, sandy soil; its blue-purple flower clusters are quite visible above dark, folded, arched leaves. The second, *P. peckii*, is very rare. Its pink, lavender, or white flowers are hard to see against pine-needle-covered ground—and no botanist will reveal where to search for it! It has a very limited range.

Not all species on the east side have small flowers. Among the *P. humilis* plants, one sometimes sees a tall, stout stalk bearing long, gray leaves and big, elegantly shaped, sky-blue corollas with flaring lobes: this is *P. speciosus*, the splendid penstemon. Scattered here and there on rocky outcrops along the eastern foothills of the Cascades, or on the cliffs in the Columbia Gorge, are medium-size shrubs with deeply divided leaves and a spattering of bright reddish-pink flowers: these are *P. richardsonii*. If you look at the anthers of *P. richardsonii*, you will find that they are saccate like those of *P. serrulatus*.

Oregon has two more members of the woolly-anthered Dasanthera subgenus. Anywhere from the Cascade crest east to Montana and north into Canada, you may find another subshrub very much like *P. cardwellii*. *Penstemon fruticosus* is more variable, in leaf shape, and flower color, and much better known. It was the seventh *Penstemon* to be collected. Merriwether Lewis found it, on his return trip, in 1806. (Botanists took almost a century, however, to put it in the right genus and get the name corrected.)

If you drive through the Columbia Gorge on your way to or from Eugene, you may see the rarest of our so-called "shrubbies." Those red-purple spots on the cliffs near the mouth of Hood River are the endangered *P. barrettiae*, which grows only there and in a nearby canyon in Washington. The name means "Mrs. Barrett's penstemon." So who was she? Almeta Barrett, a pioneer doctor's wife, came west from Ohio, with husband and baby, in 1871. They settled at the mouth of Hood River when there was nothing there but a ferry landing and a few farms; town and apple orchards grew up around them. The Barretts were fascinated by the unfamiliar trees and flowers. Almeta, especially, became a collector, remembered by her friends as "braving almost any hardship to find a new or rare plant." One of those plants, an unusual penstemon, was sent east to botanist Asa Gray to be identified. He published it in 1886, naming it for the finder. Modern road construction endangers the species, but efforts are being made to protect it and to plant seed (by peashooter!) on other cliffs.

In a few places *P. barrettiae* grows in gravelly ravines, layering itself into clumps a foot high and 10' across. Coming up through the leaves sometimes, is a narrow spire bearing tight

clusters of medium-size, deep blue flowers. This is *P. subserratus*. Towards the western end of the Columbia Gorge, travelers may see a bright-blue-flowered species, *P. ovatus*. It is rather like the first species we saw, *P. serrulatus*, except that the anthers open completely, end to end. (You may be able to guess from the boat-shaped anthers that all have in common that *P. humilis*, *P. ovatus*, and *P. subserratus* are related.)

If you want to see a few more of Oregon's penstemons, on your way home, consider looking to the southwest or northeast. Quite near Eugene are two species you will not find in plant manuals for this area—which shows that botanists do not always check herbarium specimens. Both species have been collected here, in rocky outcrops among the Douglas firs, for decades. *Penstemon rattanii*, found between 2,500' and 3,500' in elevation, is like *P. serrulatus* in habit and leaves but has boat-shaped anthers and an open inflorescence with larger, pale or deep red-purple flowers; it grows southward into California. One can always recognize it by the banner-like staminode that waves from its open mouth.

Penstemon globosus

A little higher and harder to find (and supposed to occur only farther to the east or south) is *P. deustus*. One of the few penstemons with yellow or white flowers, it is looked down on by some folks but is a favorite of ours. Spotted on cliff tops, the low clumps of jagged, leathery, gray-green leaves are decorated with spikes of tiny, cream-colored flowers, the lip often striped purple.

This brings to five the number of species so far described that were collected by David Douglas. That amazing young Scottish collector found, during his few years in the Northwest (1826-1830) more new species than did any other botanist. His thirteen penstemon

species included *P. deustus, P. ovatus, P. richardsonii,* and *P. speciosus,* with what is now *Nothochelone nemorosa* in addition.

Farther south, close to California, some of the entire-leaved Saccanthera species show up. The plants tend to have sprawling branches, with two to four large, blue-purple to red-purple corollas at a node, but they can be identified most easily by the yellow buds and two pale dots at the top edge of the lower lip. The species with narrow leaves is *P. laetus* (or, if the corolla is small, *P. roezlii).* The species with very broad, blue-green, glaucous leaves is *P. azureus.*

If you go instead to the far northeast corner of Oregon, about fifteen more species are to be found, and they are dillies. First, another saccate-anthered plant, *P. cusickii,* with a narrow, gray-green leaf and delicate, airy, blue-violet inflorescence. This was discovered by William Cusick, a friend of Howell's, who made his living driving a horse-cart-with-plant-press through eastern Oregon, collecting. More unusual are two of the four species in the genus which do not have opposite leaves: *P. gairdneri,* a low mat-former with alternate leaves and one pale blue or lavender flower to a node; and *P. triphyllus,* which has whorled leaves (one to four at a node) and small, blue-violet, sometimes whorled corollas. (A variety of *P. deustus,* with whorled leaves and off-white flowers, also grows nearby along the Columbia River.)

Down along the Snake River and other tributaries of the Columbia, the large, pink-purple, saccate-anthered flowers of *P. venustus* cover cliffs and hillsides. No other species in the genus has what it has: stamens that are hairy immediately below the anthers. The last three species described are also among those credited to David Douglas. He had an eye for the unusual.

Higher up, in the Wallowa Mountains (sometimes known as Oregon's Alps) you will find several bright blue or rich blue-purple species, notably *P. globosus.* As you may imagine, this bears a large, many-flowered, globe-shaped head. The leaves are large, oval, and bright green. In foggy weather, that blue glows like a lantern!

If you have been wondering about the four rare specie in Oregon, here is a list of them. We met *P. barrettiae* as a big-flowered subshrub. The others are small-flowered perennial herbs. One, *P. peckii,* has been described. The last two are not easy to reach. In southern Oregon, at the top of an 8,000' mountain, grows *P. glaucinus,* looking rather like a darker-colored *P. euglaucus.* It lives so high up, it does not bloom if snow stays late, but luckily it is protected in a wilderness area. Hardest to get to, 9,000' up in the Wallowa Mountains, grows tiny *P. spatulatus.* It is definitely not endangered, despite its rarity, because only mountain goats—or people who climb like goats—ever see it!

So, have these descriptions of more than half of Oregon's penstemons been enough to satisfy you? If you would like to search for more, contact us at the Annual Meeting, and we will tell you where to look.

Robin and Kenneth Lodewick garden in Eugene, Oregon. Their interest in penstemons goes back to 1960. They have together written a penstemon identification guide and a guide to nomenclature, published as pamphlets and available from them. They have also written many articles for several publications on this their favorite genus.

—continued from p. 262

like flower. Sound unbelievable? We have pictures. Even more outrageous are its four flat leaves, pasted completely flat on the ground. It is sometimes interesting to discover to what family these South African plants belong. *Brunsvigia* is in the Amaryllidaceae.

Well, at Witsieshoek there is a long, dirt—but good—road up to the parking lot at the trailhead to Sentinel Peak. This gently winding road follows a ridge with many good wildflowers along its margins. Here we saw the yellow *Commelina africana*; the yellow *Hypoxis rigidula*, with its tough, narrow leaves; and *Satyrium longicauta*, another orchid. Among insects and other things seen, we saw a very fuzzy black caterpillar, blue-black beetles, and a blue chameleon with independently roving eyes.

The prime plant here was not in bloom, for it blooms in spring (Sept.-Oct.); it is *Euphorbia clavarioides*. This is a rock-hard, often 2'-across, dense bun, made up of blunt nodules like some flattened, spineless cactus. More familiar to some gardeners who use larger plants was *Crocosmia pearsii* (photo, p. 256), another cluster-headed, trumpet flower, in dark reddish-orange, and with its inflorescence arising from zigzag stems. Less familiar was *Monsonia attenuata*, a dirty white, 8"-tall inflorescence with flowers of five, wide, floppy petals with beautiful, dark blue veins on the backs.

I have waited until the end of this saga to tell you of the baboon "attack." While botanizing along the road to Sentinel Peak, we rounded a bend in the road, and there on the slope was a family of Chacma baboons. They immediately headed for higher ground with the young ones. Then, as we walked along the road, the alpha male, making its distinctive loud calls, chased a lesser male directly down the slope towards us. The bark of the baboon is exactly the same sound a human might make imitating the bark of a large dog—but it is ten times louder. My hunch was that this loud chasing behavior by these two males was their attempt to scare us off. It was definitely an adrenaline-producing event.

Then the sky once again became dark and threatening, and we abandoned our hope of climbing. The iron chain ladder seemed a poor risk in a thunderstorm.

There are three points I want to sum up concerning the Drakensberg before departing. First, there are few trees, and these grow only in the ravines. This is grass-dominated country, and I have little knowledge to share when it comes to grasses, except to remark that there are a number of strange forms, some as tough as wire. Second, I must mention three widely-seen wildflowers which seem grossly out of place: calla lilies, simple forms of *Dianthus*, and *Agapanthus*. They seem clearly to belong in some cultivated garden. And third, I must not fail to mention that winters are dry and summers are wet here in southeastern South Africa, so treat these plants accordingly.

Ann and I left Durban at about 30° South latitude, changing planes in London, and flew past Greenland at 60° North latitude on the great circle route back home to the USA. How amazing it is and what a privilege to travel one-quarter arc of the globe in about 36 hours.

Dick Bartlett and his wife Ann have several large rock gardens in Lakewood, Colorado. Special interests include crucifers and penstemons, and direct exploration of the high mountains of the world.

GARDENS

Jack Todd's Paradise

Victoria, British Columbia, is known as Canada's City of Gardens. Surely one of the most beautiful in the city is that owned and cared for by Jack Todd. Situated on Anderson Hill, it overlooks the Oak Bay Golf Course, reputed to be the second oldest golf course in North America still in its original location.

The garden is a mass of color the year around. Located as it is, it is actually many gardens in one. The lower garden is a mass of annuals and perennials, with azaleas and rhododendrons surrounding a lawn edged by a perennial border. Here also is the work area, barely visible to visitors, but consisting of compost bins, and a space for a small vegetable plot. This is all on the north side of the garden, with Jack's collection of bonsai and miniature evergreen trees. Jack has collected most of these on his frequent trips to the mountains on Vancouver Island.

Five years ago at age 75, Jack decided to take up mountain climbing. As always he was on the look-out for stunted trees, as he clung precariously to the steep rock slopes. If he spots one, he will either collect it then, or perhaps return the following year to do so. As a result of years of searching he has an outstanding collection of small, gnarled conifers, which he has planted in crevices in the large rock outcroppings on the north slope of his middle garden. Soil has been brought in and placed in the natural pockets in the rock. In addition to the small conifers many native and shade-loving plants are to be found here. Things such as ferns, trilliums (including a gorgeous double), *Erythronium*, and the blue poppy (*Meconopsis betonicifolia*) are all here and looking perfectly at home. Here, also, are beds of anemones, beautiful tuberous begonias in their vivid hues, and *Lavatera*, pink and white, propagated each year from seed collected the previous season.

As if Jack didn't have enough to do inside the stone walls that border his garden, he has planted the verges of the boulevard in front of his place with flower beds brimming with annuals. A large maple 'Autumn Glory' stands in a bed of poppies, iris, etc., in the middle of the lawn. When autumn comes, this tree becomes a scarlet sentinel.

Proceeding up the stairway past these treasures, one comes to the exposed section of the garden in which, for obvious reasons, Jack planted several of his bonsai pines, Arctic willow, and various ground-hugging plants. It is at this level that the living quarters of the house look out on a 360° view over the golf course, the Olympic Mountains in the State of Washington, the blue Strait of Juan de Fuca, and snow-capped Mount Baker. Here also, between two shoulders of rock, is the patio. These rocks give some protection against the winds which blow here. The need for ground-hugging plants is clear, as the wind gauge on the roof of the house has recorded northeasterly gales of as high as 88 miles per hour.

Watering is a challenge because of prevailing winds and the rocky terrain. All is done by hoses on timers from taps. Starting at the top is the first of four inter-

connected pools. This is the Koi Pool, and one can cross it on a series of flat stepping stones installed just above the level of the pool. The four pools are located on the south side of the house. Just beyond the fence on this side is a public park, home to many early-flowering native plants.

Jack and his wife Margarit very wisely selected this home site some 20 years ago, when it was nothing but a bare rock. They saw plenty of potential for it to become the colorful and vital paradise into which it has been transformed.

—Bill Dale

Rock Gardening in the Emerald Isle

One evening at dinner during the International Rock Garden Conference of 1991 I found myself sitting beside an American delegate whose missionary zeal was such that by the end of the evening I found myself included in that modest group of Irish alpine enthusiasts who hold membership of NARGS, as well as the Alpine Garden Society, the Scottish Rock Garden Club, and the New Zealand Alpine Garden Society, enjoying their publications and taking an active part in their excellent seed exchanges.

My garden is a moderately sized suburban garden with a fertile, sandy, easily drained soil, having the disadvantage that it dries out very quickly in summer. Tall perimeter trees provide some shade for woodland plants. Raised beds and twelve stone troughs provide a diverse habitat for alpine plants from the mountains of Europe, the Americas, Australasia, and South Africa.

Ireland's climate is that of a typical northwestern European maritime island with moderate temperatures. Winters tend to be damp and humid, with snow cover only a few days per year. Ground frosts can damage rhododendron flowers and other plants in late spring. In summer temperatures rarely get beyond 24°C with few periods of prolonged drought. On returning to Ireland by plane I always note how green the fields appear below compared to any other part of the world, but then Ireland *is* known as the Emerald Isle. In County Antrim where I garden we have an annual mean rainfall of 37", although 100 miles west of my garden rainfall reaches 120". Such climatic conditions are suitable for growing Australasian alpines, and during the past decade I have created beds devoted mainly to plants from New Zealand mountains, led by the genus *Celmisia* with some 40 representatives. I also have collections of *Astelia, Aciphylla, Helichrysum, Hebe, Myosotis,* and *Clematis,* with the more colorful Antepodeans *Blandfordia punicea,* with its delightful scarlet bells, and the much heralded Chatham Island forget-me-not, *Myosotidium hortensia,* enjoying our temperate climate. These beds have large quantities of humus, including peat, composted bark, and well-rooted leafmold added to the soil annually. This helps to retain moisture during the dry months. Most of these plants have been grown from seed collected in the New Zealand Alps. In 1996 I was asked to lecture at the International Rock Garden Conference in Christchurch, New Zealand, and took the opportunity to spend several weeks in the mountains, where I enjoyed seeing many of the plants I had become familiar with in the garden growing in their natural environment.

The raised beds and stone troughs provide the ideal growing conditions for

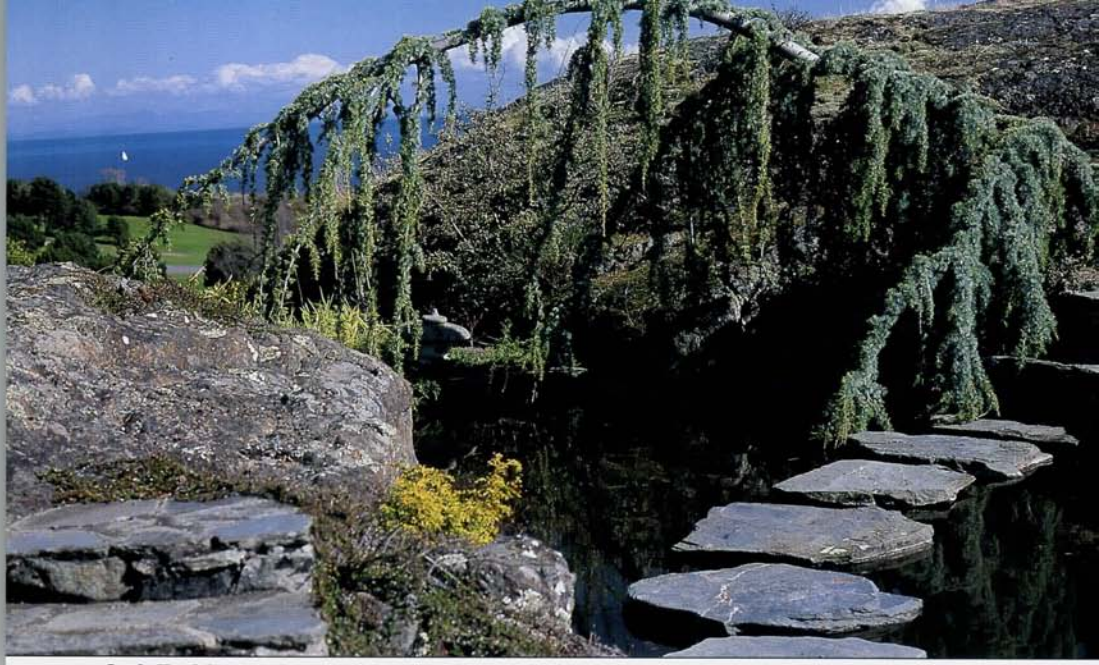
Meconopsis x *sheldonii* 'Slieve Donard' (p. 293)
photos in McBride garden , Harold McBride

Meconopsis x *beamishii* (p. 293)

Clematis x *cartmanii* 'Joe'

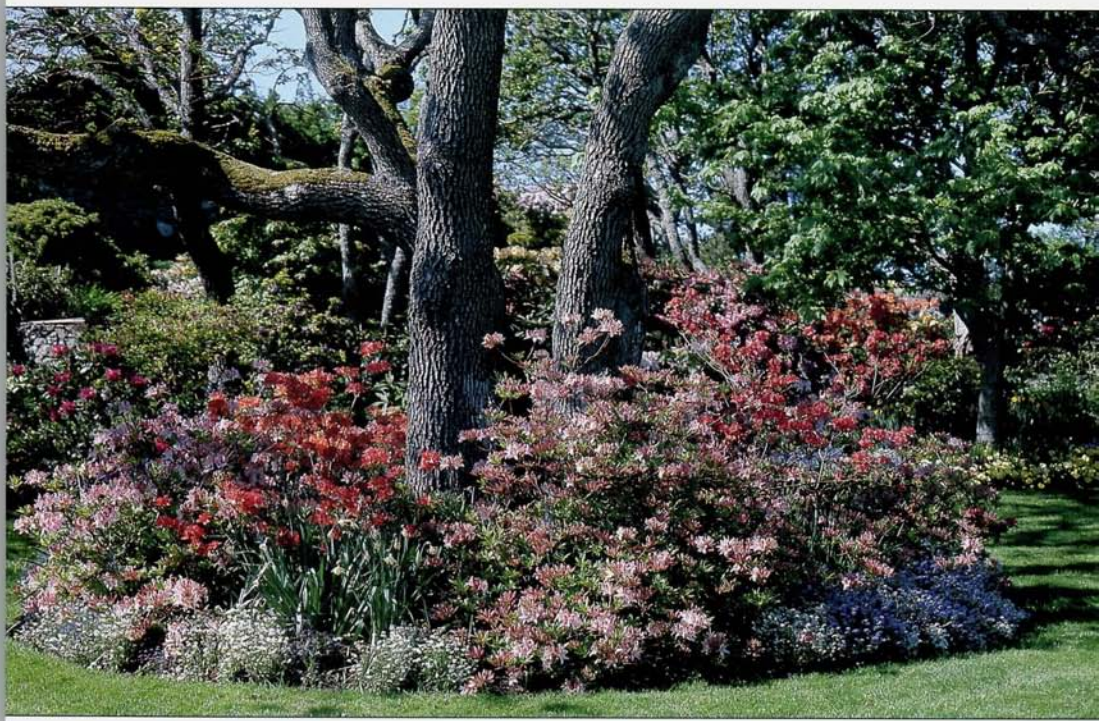
Jack Todd's garden, Victoria, British Columbia (p. 287)

Jack Todd's bonsai collection photos, Bill Dale



Jack Todd's garden, stepping stones over pool

Jack Todd's rhododendrons photos, Bill Dale



McBride's rock garden (pp. 288, 293)

Oxalis laciniata 'Gwen McBride' (p. 293) photos, Harold McBride

other Southern Hemisphere plants such as *Rhodohypoxis baurii* from the Drakensberg Mountains in South Africa. Covers are placed on stone troughs as a protection against damage from excess winter wet, although several large plantings of these most colorful little plants have thrived and multiplied in my uncovered raised beds.

From Patagonia, *Oxalis laciniata* has proven to be a most sought-after plant. This plant is very variable when grown from seed with color ranges from lilac-blue, crimson, purple, or sometimes pink. The pink form may have a dark center, but all show considerable veining on the petals. Each year new colors have appeared in my seedlings, including a fine, dark form, which I have given the name 'Gwen McBride' (photo, p. 292). This plant is now on offer from several British specialist nurseries. I have also crossed *O. laciniata* with *O. enneaphylla* 'Rosea' and *O. enneaphylla* 'Alba', giving a series of garden-worthy hybrids.

I count myself most fortunate to garden in a climate where many plants from the Himalayas are much at home, particularly the blue Himalayan poppies, whose eye-shattering color lights up my garden in late spring. Peat bed conditions enriched with large quantities of well-rotted cow manure provide the rich, moisture-retaining growing medium that encourages *Meconopsis* to thrive.

Recently I took advantage of the ACE seed collection to add to the species of *Meconopsis, Primula, Androsace, Rhododendron, Nomocharis,* and *Lilium* that I grow. Many of the new introductions are flowering for the first time and are meeting the expectations that we formed on hearing the reports of the seed collecting expedition members. One of the finest of all Himalayan poppies for the garden, *Meconopsis* x *sheldonii* 'Slieve Donard' (photo, p. 289), was named and distributed by an Irish nursery, while the pale "moonlight-colored" *M.* x *beamishii* (photo, p. 289) was raised in an Irish garden in County Cork.

The main rock garden bed contains a number of smaller shrubs—several species of *Daphne,* including *D. cneorum* 'Eximia' and the prostrate *D. cneorum* var. *prostratum, D. cneorum* 'Alba', *D. alpina, D. oleoides, D. pontica, D. retusa, D. striata, D. arbuscula,* also several hybrids, while the gem of the genus, *D. petraea* 'Grandiflora' grows in a trough. The aroma which these plants provide on a summer evening is much appreciated. A wide selection of rock plants are grown, including several forms of *Gentiana acaulis, Viola* species and cultivars, and *Linum* 'Gemmell's Hybrid' are prominent.

In this moist climate with fairly high humidity, scree alpines require perfect drainage, and some are given the shelter of a glass roof in winter. Several troughs are devoted to plants of one species or plants from one continent. *Cyclamen coum* can be used in this way with different colors and varying leaf forms adding interest. Two troughs are devoted entirely to New Zealand scree and cushion plants, including nine species of the white-flowered New Zealand gentians. The smaller gentians of Europe and Asia enjoy trough culture with the Irish native *Gentiana verna* in both blue and white-flowered forms . Also the rare *Gentiana ochtenica* flowered here for several years before its demise. *Gentiana newberryi* , grown from NARGS seed, also makes a fine trough plant.

Campanulas have a long flowering season and are among the genera which alpine gardeners regard as one of the mainstays of the rock garden. Some campanulas can prove rampant in the rock garden, and I confine myself to growing the less aggressive species. *Campanula saxifraga* and the closely allied *C. tridentata, C. allionii, C. planiflora,* and *C. thyrsoides* are happy in my rock garden, while

the smaller *C. sartorii, C. hawkinsiana, C. alpina, and C. tommasiniana* are confined to raised beds. In my troughs the delightful *C. raineri* and the hybrid *C.* x 'Joe Elliott' thrive in a tufa rock crevice , while *C. piperi* and *C. shetleri*, both grown from NARGS Seed Exchange seed, enjoy the company of *C. zoysii* , *C. morettiana*, and *C. jaubertuana.* In early spring slug damage can be a problem with these gems, but when grown in a trough, it is easier to give them some protection.

In early spring small bulbs are the first to flower in my woodland peat beds, including a selection of *Galanthus, Crocus*, dwarf *Narcissus*, and *Fritillaria.* In the past most of my fritillaries were confined to the alpine house or bulb frame, but this year twelve species flowered in the open garden, including *F. pudica.* The early bulbs are followed by many species lilies all grown from seed. *Lilium nanum*, including its variety *flavidum*, likes moist, humus-rich conditions, and *L. lophophorum* ACE 1767 flowered for the first time in 1997. I also enjoy the taller species, including *L. lankongense, L. duchartei, L. greyi, L. canadense, L. vollmeri*, and perhaps my favorite, *L. nepalense*, which must rank as one of the most enchanting of garden flowers. Towering above all the plants in this bed is *Cardiocrinum giganteum* var. *yunnanense*, which in some seasons reaches 8' in height. This plant takes seven years to reach flowering size from seed, although offsets can quicken the process by several years. Cardiocrinums are very subject to damage by slugs as they emerge in spring and late frosts can burn the leaves and damage the flower buds. I have several frames and an alpine house where I grow cushion plants such as androsaces or plants which require drier conditions, such as *Lewisia rediviva.* Glass cover is also useful to prepare plants for exhibition.

Growing plants from seed, whether harvested from my own plants or from seed exchanges, is the aspect of gardening I find most rewarding. Each year I sow several hundred pots of seed, which keeps my modest garden well stocked and, of course, provides plenty of plants to pass on to my fellow gardeners.

Interest in rock garden plants is quite high amongst Irish gardeners, with three AGS groups on the island. There is a long established Ulster group in Northern Ireland and two groups in the Republic of Ireland at Dublin and Cork; all three groups have a close relationship. Many Irish Alpine enthusiasts also travel to SRGC discussion weekends in Scotland and AGS conferences and shows in England. During the winter months we have many lecturers, on occasions from Europe, North America, and Australasia.

It is interesting to record that Ireland played a part in the formation of NARGS. In 1934 the Royal Horticultural Society invited Sir Frederick Moore, curator of Glasnevin Botanic Garden in Dublin, and his wife Lady Phyllis Moore, a distinguished plantswoman in her own right, to be the their representatives and judges at a show in the USA. Lady Moore encouraged the founding of a rock garden society, so much so that at the 50th anniversary celebrations Lady Moore was recalled as "the true godmother of NARGS." NARGS' video library also has a tape of the late Dr. Molly Sanderson's garden. Molly was president of our group for many years; she gardened some 70 miles north of my home.

In 1998 I look forward to visiting some NARGS member's gardens and perhaps seeing some North American alpines in their native habitat.

—Harold McBride

PERFECT AND IMPERFECT:
MUSINGS FROM A ROCK GARDEN

by Alexej Borkovec

"The rock garden is a mess." This brief and disturbing thought popped into my head a few days ago, while I was sitting on the patio and surveying my pride and joy. The more I looked, the more I had to agree that my initial observation was indeed correct. Yes, here they were, all six elements that combined in my mind to spell out that pessimistic sentence.

Though every rock gardener, if he happens to be analytically inclined, may arrive at his own list of causes, a messy rock garden results from two basic categories of problems: inanimate and animate. The inanimate category concerns the rock garden itself: the stone walls, raised beds, slopes, and screes. An illustrious rock-gardening friend of mine, then in his nineties, once told me that when he built his rock garden some 50 years ago, he built it so well that there was never any need to repair or rebuild a single part of it. Well, good for him; I'm not in his class.

My rock garden was built by one person and one wheelbarrow; no cranes, fork lifts, or bulldozers, and, consequently, most of the stones were one-man size, some 50 kg or less. Now, these stones are inanimate objects, but Mother Nature has a way of making them move around, however well you place them. It may be a slow process, but it has inevitable consequences: the walls crumble, beds fall apart, and crevices open up. To put it briefly, my rock garden needs to be almost continuously repaired and rebuilt—and that is what the first category is about.

There are three basic elements or deficiencies in this first category, all clearly visible to the eagle eye of the rock gardener: 1) repair work that has been started but was never finished; 2) one that was finished but doesn't look "right;" and then 3) all those alterations that haven't been started, but must be, the sooner the better. There is no need to enlarge upon the first element; unfinished work is just that, unfinished. Initially, there may have been a good reason for building only the first half of a stone wall: a wonderful crevice was to be created and the right plant for it was just germinating. Unfortunately, some beast gobbled up the seedlings, and so the building project was postponed, waiting for a suitable replacement that never materialized.

The second element is difficult to pin down, because it concerns a feeling rather than a fact, but in his striving for perfection, the rock gardener believes that he has developed a sixth sense that allows him to discern what is right or wrong in his rock garden. Needless to say, the judgement is subject to frequent revisions, but it contributes to his overall assessment of the state of the rock garden. When in a critical mood, the rock gardener would just as soon bulldoze the whole works and start again from scratch. After all, he has already made all the mistakes in the book, and if he only could start again, he would really make a perfect job of it.

However, realizing the futility of this type of thinking, the rock gardener concentrates on the most obvious opportunities: the wall that instead of plants harbors a colony of chipmunks, the decomposing stones in an edging of a raised bed, or the south-facing slope that with some reinforcement would be perfect for xerophytes. In fact, there are few parts of the rock garden that couldn't be improved, and this element furnishes an endless variety of inanimate subjects for critical evaluation.

It is, however, the animate conundrum that first catches the roving eye of a critical rock gardener. As was done before, we may divide this category into three frequently occurring elements. The first includes the plants that should not be in the rock garden at all. The second includes those that should be placed somewhere else; and the third, the mystical one, includes the ideal plants, apples of the rock gardener's eye, so to speak, that one only dreams of having, but that would be just ideal for the particular spot being inspected.

The obvious contenders for the first element are the common weeds. I have dealt with them elsewhere and shall say no more about them here. However, there is a much more interesting group of inappropriate plants that appear in every rock garden through a process called collectivitis. This affliction, to which rock gardeners of every degree of proficiency and sophistication are susceptible, consists of an uncontrollable desire to collect, grow, and flower all reasonably sized species, subspecies, varieties, and cultivars of one particular genus of plants. Beginners usually start with sedums or sempervivums and gradually advance to more difficult genera such as saxifragas, androsaces, dionysias, and, in the ultimate stage, eritrichiums. In theory, collectivitis should be just one of the ways to enrich the rock garden with new and interesting plants. However, the process almost invariably introduces not only good-looking and well-behaved plants, but also robust giants and rampant weeds that, for one reason or another, take up a permanent hold in the rock garden.

Many years ago, in one of my collectivitis bouts with the genus *Ephedra*, I acquired seeds of several supposedly small plants from the northern Himalaya. Since ephedras have male and female plants, and the fruit is their chief attraction, I had to grow quite a number of these plants to insure pollination. As it happened, the plants were indeed small the first year, but they continued to grow and enlarge every year, forming a strange maze of leafless green branches all around the rock garden. Although the most offensive ones have been removed after my collectivitis switched to a different genus, there are still too many of these unlovely plants in my rock garden.

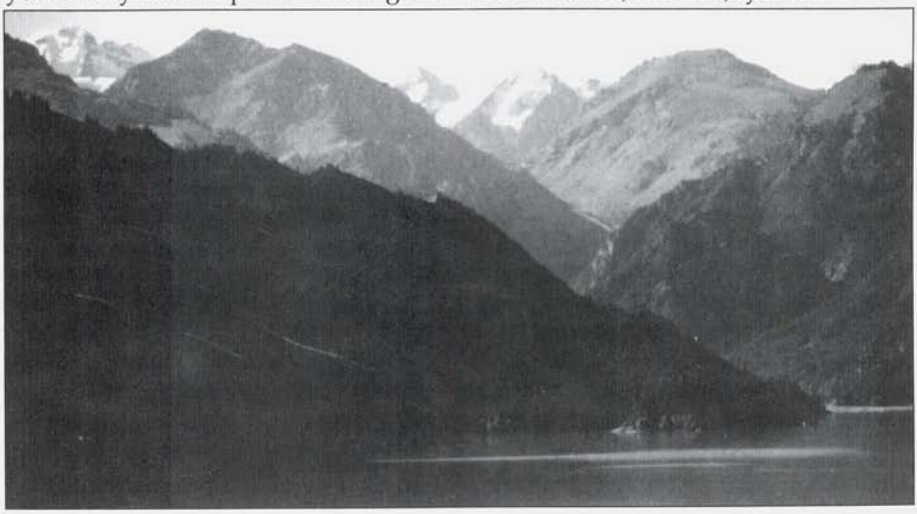
The second element stems from the rock gardener's eternal quest for absolute beauty which, being

unachievable, makes it a permanent source of dissatisfaction with the garden's appearance. What is at stake here is a harmony of contrasts. Silver with green, blue with yellow, harsh with soft, each plant is to accentuate and be accentuated by its surroundings. Unfortunately, this noble goal, achievable only by moving plants from one place and neighborhood to another, presents some serious problems. If the foliage harmonizes, the flowers don't, and vice versa. Or the blue plant requires moisture while the yellow one thrives on drought, and, to be sure, both of them fiercely resent transplanting. In a pensive mood, the rock gardener usually decides to postpone the transplanting to next year.

Although the final element may contribute to the uneasy feeling about the state of the rock garden, it is also the rosetta stone of rock gardening. You spy an empty spot somewhere between two stones, and your fantasy goes to town. What would be the perfect plant to put there? A rosette of *Saxifraga longifolia*, a clump of *Physoplexis comosa*, maybe a dark green bun of *Androsace helvetica*? There is no end to these sweet dreams, and even if you finally fill the place with a good color clone of *Aubrieta*, there will always be other empty places to discover and other plants to dream about.

But what was that about the rock garden being a mess? There is a remedy: invite a rock-gardening friend to come over for a visit. Assuming he is a real friend and not a cad, you will probably hear how well your rock garden looks, how nicely the rocks harmonize with the plants, and the plants one with another, that the weeds are almost nonexistent, and what a generally wonderful place you have. Then, after your friend departs, you go back to your chair, take another look, and discover that the presumed mess isn't really so bad and that the rock garden really looks quite nice this time of the year. Lost in these pleasant thoughts, you hear a nasty little voice: "Did the friend really mean, it or was he just being polite?" Oh, well, there is this little spot in the south-facing wall that would be just perfect for *Dionysia caespitosa*, which, according to the *Encyclopaedia of Alpines*, is no longer in cultivation.

Alekej Borkovec has been growing alpines and other rock garden plants for 35 years in suburban Washington, D.C. Photo below of Heaven Lake, Tien Shan, by Hans Sauter.



GARDENING TOGETHER

THREE GENERATIONS OF ALPINE LOVERS

by Genevra and Francesca deCsipkay

In view of a three-generation, avid interest, perhaps family can get together on the subject of rock gardening! My daughter, Caitlin has had so much schoolwork this year that she hasn't been able to contribute her own words, yet we stand to it that she IS every bit an equal, if not more, and has her own experience and slant on the subject which has made for much of the vitality that enthusiasm, competition, and difference brings.

Genevra de Csipkay (75):

"I've always been drawn to specific small gems of art such as carved netsuke and Haiku verse. These are highly condensed, poetic comments on our links with nature. In turn, alpines are the varied and beautiful jewels that inhabit the rarefied terrain above timber line.

The ability of alpines to retain compactness in the minute precision and complexity of their construction, the vivid colors of their blooms, and their stoic ability to endure exposure to extremes created in me an intense desire to participate in their lives. This has meant getting these exquisite plants to coexist with us at lower altitudes. The challenge lies in trying to get them to thrive and blossom, trying to duplicate the conditions in which they flourish. This requires concentration, carrying out industrious research, and keeping up with reading periodicals and books dedicated to alpine life.

My daughter Francesca and my grand-daughter Caitlin and I have all spent hours working out problems of identification and habitat requirements. We feed each other information as well as whet each other's appetites. This has made for hours and hours of shared joy. Whatever one person doesn't know seems to be immediately filled in by one of the others.

Since moving to Boise, Idaho, from southern California 20 years ago, I have re-experienced having four distinct seasons and thus have been able to develop rock gardening. The area I had for the first 15 years was a portion of a large, one-acre garden. This garden, much like a park, was dotted with 80' trees which provided much shade but let through little sun. Nevertheless, an alpine area was created running along about 100' of irrigation ditch in our back garden. We imagined this as a running stream and had small wooden bridges built over

it. Huge and smaller rocks were used to build up each side of this stream into heightened outcroppings and plateaus. Francesca contributed her enthusiasm, skill, and help to create this transformation. Largely I grew shade-loving alpines, although about a 20' by 30' area was in full sun. Francesca's children were very small at the time and liked swinging and climbing in the trees while she came to work with me. I have always felt extremely happy in my garden.

A serious back operation and progressive spinal stenosis forced me to abandon my large garden and gardening as I had hitherto known it. Abandoning alpines could never be considered, however, so I was jubilant when we found a townhouse that had a 12' by 12' garden space.

In the center my son-in-law created a small koi pond with water dripping down from a large, black rock. Although originally most of the ground was changed into rock outcroppings, this changed quickly and radically when Caitlin and Francesca started making hypertufa troughs. I now have six large ones (3 1/2' x 2') and two slightly smaller ones, cradled on giant, feather-rock boulders, the same color as the hypertufa. The troughs being a good 2' off the ground are at a height my spine can tolerate.

I especially love these troughs, as my two faithful coworkers departed from stereotypical shapes, creating naturally irregular troughs with tufaed-in rocks or sets of rocks for different height effects. The exteriors are very rough, and some have been drilled for hanging-type alpines. They are at least 20" deep. We have arrived at a very satisfactory soil mixture made up with large quantities of granite. About an hour's drive away we found a natural quarry of granulated granite. We go there about four times a year with sieves, filling buckets with fine, medium, and rough grades of gravel. We use this in our mixture as well as for top dressing. We all find it works well to add from a couple of tablespoons to a small bucket of granite redressing to the troughs about three times a year.

The great joy we look forward to every year is the planned trips to alpine areas in Idaho mountains or those of neighboring states. Francesca and I love to do close-up photography. Caitlin's forte is her remarkable ability to leap ahead, mostly upwards, and discover the great finds of our trips. We collect seeds and take cuttings wherever permitted. The happiness we three have shared on these trips is almost complete. Every moment is spent in discovery, awe, or anticipation.

From spring until early autumn the traffic between our two gardens is intense. Every new bloom has to be personally seen by each of us, photographed, and compared. Our photo albums are renewed each year and serve to remind us not only of growth, but of the glorious beauty we enjoy. Until recently we did not know it was considered an achievement to have long-surviving and blooming *Aquilegia jonesii, Eritrichium nanum, Daphne jasminea*, etc. So we realize we have some luck. I cannot even begin to imagine what it would be like not to have our gardens and share this common interest and excitement."

Francesca de Csipkay (48)

"Ever since I was a small child I have loved flowers, gardening, and nature. When my family moved into a new house in 1964, I was given my own piece of property on which I made a small pond, planted two birch trees, had a stone bench atop logs, and created an area in which to read and meditate. At the time I had been very taken with the Botanical Gardens in

Claremont, California. I was very interested in natives as well as the cloud effect of naturalized heucheras reflecting waves of light and shade.

When I was a child I remember that my mother was always happy when she gardened. She liked being alone or having one work along side her, but she always smiled as she watered, pruned, or cultivated. Sometimes she discussed how she loved her flowers as much as her children, which I used to tell my friends much to their amazement. As there were sadnesses in my mother's life that often showed, I was particularly moved by the way plants made her happy.

I started on my first alpine rock garden in 1980. The foundation was a small, 2' alpine fir locked into a huge, gray, upright rock, flanking the crest of what I called Fir Peaks. A 70' dry river bed followed, ending in a dry lake with hand-chosen stones. Above this were cliffs and hills, and high above the 'lake' was my favorite spot: an alpine meadow. Slowly, much of the lawn on our quarter acre lot began to be dug up, and mounds were fashioned into specific spots for family groups of alpines with similar cultural requirements. As I couldn't have real streams, I went in for dry streams in several places. One of them I lined with twelve little *Betula nana*. Small trees have been an essential.

This was how my alpine garden was when I released our dwarf rabbits from their cages to live wild in the yard. They ate up everything in the garden. For several years, as my two children (then 4 and 6) grew, I was content with just animals and 'the natural look.'

However when Caitlin was about 9, she started reading my old alpine bulletins and said how she wished she had a mother who liked flowers and wanted a garden. She began to read everything I had and to memorize all the Latin names of alpines, and we began on the project together. Somehow it started off with her incentive and her lead, though I became very happy being involved again. She became inspired with the vision of hypertufa troughs and made the first one with her father. He had made two koi ponds with a waterfall between them which centralizes the atmosphere of a garden.

Over time, one trough grew to another and another. Caitlin did a heroic effort of digging a bed down to a 6' depth and replacing the soil with a sand and gravel scree. Then she made a slab bed with 2' sections of slate. Her energy and incentive were inspiring as well as her enthusiasm each time she saw a picture of something she loved.

Caitlin wrote collections of poetry inspired by the different flowers: their forms, colors, growth patterns. One year the three of us did a joint project of a 'book' (color xeroxed for family members) with haikus on alpines accompanied by small watercolors and pencil drawings. Caitlin and I shared a very happy relationship doing our gardening, which incorporated the periods of silence we needed, as well as the coming together over some spontaneous joy. On Saturdays we always visited my mother's garden, exchanging plants or otherwise doing mutual gardening and admiration. There is something particularly satisfying about having such a shared interest, because it deals with an ever-changing kind of world, but always a beautiful one.

AWARDS

CARLETON R. WORTH AWARD

Frederick W. Case, III

The recipient of the Carleton R. Worth Award this year is Fred Case, honored for the numerous papers and books he has written on the subject of plants. A high school teacher for many years, he certainly could have been the role model for *Mr. Holland's Opus* in botany. But Fred's first love has been field botany. Exploring new places, checking previously explored locations, and working with other field botanists is always more enjoyable to Fred than working in his own garden—and yet what a garden it is. Those of us who have spent a day in the field with Fred have truly had a memorable event. He is equally at home in a bog, on a mountain top, and anywhere in between in North America.

However, his best gift is his unique ability to communicate to others in both lectures and the written word. His clear, easily understood writings have resulted in a demand for him to lecture throughout North America and Great Britain. Gardening novices and Ph.D. botanists equally enjoy his lectures. Although others have tried, few have mastered the use of two projectors as effectively in a presentation as he.

Fred studied the genus *Sarracenia* for his Master's degree and named *Sarracenia alabamensis*. His interest in wet environments has led to several recent articles on bog plants in the NARGS *Bulletin*. In 1964, Fred wrote the first edition of *Orchids of the Western Great Lakes* , which was followed 23 years later by the second edition. Fred and his wife, Roberta ("Boots"), co-authored "The Beartooth Plateau: A Wealth of Alpines in Rocky Mountain Alpines" for the Alpines '86 book, *Rocky Mountain Alpines*.

Fred and Boots have travelled the United States to study populations of *Trillium* in bloom and have grown most of the species of *Trillium* in their garden. Fred and Boots have hybridized the pedunculate species and duplicated the hybrids they observed in the wild. This field and garden experience have qualified Fred as an expert on trilliums and over the last 15 years he has written a series of articles on the subject for the NARGS *Bulletin*. These articles were precursors for his recently published book *Trilliums*.

Fred Case's writings, his knowledge, his ability to share that knowledge with other plant lovers all eminently qualify him as a recipient of the Carleton R. Worth Award.

—Ken Nitschke

Marcel LePiniec Award

Betty Lowry

Betty Lowry's accomplishments in the field of finding and distributing new plants are well known. She has searched the wilds of North and South America for plants which we can all grow, taking care to collect seed without doing harm to the environment. Betty then sees that the seeds are distributed to seed banks, seed exchanges, and botanic gardens. She also maintains a seed list of her own, to which many noted gardeners and botanists subscribe. When the Northwestern Chapter ran the Seed Exchange, Betty contributed many items from her seed bank.

Betty doesn't stop with just seed distribution; she develops new methods of propagation and techniques for raising difficult seed. Her plant discoveries are shared with nurserymen all over the world (just ask Steve Doonan and Rick Lupp). In this way, we all share in her new findings. She is now off to Russia with the Alpine Garden Society, searching for more wonders of the plant world. I am proud to present Betty Lowry with the LePiniec Award.

—Pat Bender

Marvin Black Award

Sheila Paulson

The Marvin Black Award is named for Marvin Black, who was a pivotal force in the Northwestern Chapter and in NARGS, especially in connection with national meetings. It honors, among other things, a member who helps others realize their best.

In 1989 Mrs. Paulson joined the (then) ARGS, after seeing the *Bulletin* and being impressed by its quality. She had finished her term as President of the Calgary Horticultural Society at the time, demonstrating that her horticultural interests have been broad in scope. She

found her introduction to the world of rock and alpine plants fascinating, and with her abundance of energy and her willingness to put in time and effort on committee and organization work, even on occasion putting it ahead of her own garden's needs, she found a ready acceptance. Since joining, she has attended almost every Western Study Weekend, as well as some eastern and international conferences.

Mrs. Paulson's enthusiasm and energy attracted a small group of keen rock gardeners, who in 1991 formed the nucleus of what has become the Calgary Rock Alpine Garden Society. The eleven individuals fascinated with the study of alpine plants found interest in these plants expanding rapidly. By 1994 a solid membership base had been established, and the present-day CRAGS was formed and registered as a Society under Provincial (Alberta) legislation. CRAGS became a Chapter of NARGS in 1994, a logical and constructive move as membership grew to something over 250 at present.

CRAGS' approach to building membership has been quite simple: good programs and good speakers will attract members. Mrs. Paulson excels at seeking out and conscripting speakers, and plant sales and other programs have attracted attention and respect among serious gardeners.

The initiatives, energy, time and effort needed to make such a success of one of Canada's newest rock and alpine garden societies is due in no small part to Sheila Paulson's selfless dedication and determination to succeed. Many participated, many worked as long and as hard, perhaps, but it takes someone willing to sacrifice much of her personal life and leisure to a purpose to bring about what has been achieved.

—Rod Sykes

AWARD OF MERIT

Alice Lauber

Alice Lauber has been Recording Secretary of the North American Rock Garden Society for five years, finishing out the term of the former Secretary before being elected for two terms. As anyone on the Administrative Committee can tell you, she maintains wonderful records and keeps us all on our toes. With Norman Singer, Alice helped to assemble and distribute the new Bylaws. She also typed several articles appearing in NARGS' recently published book, *Rock Garden Plants of North America.*

Alice edited the publication of the proceedings of the 1995 Western Study Weekend, 'Woody Plants in the Rock Garden'. For several years she edited the Northwestern Chapter's newsletter. She is now President of that Chapter.

Alice worked on the Seed Exchanges in 1977-78 and 1992-94, trudging through snow to help make the Exchange possible. She has compiled our

Chapter's membership booklets, worked with the American Primrose Society to put on a display of troughs at the Northwest Flower and Garden Show, and served on endless committees. I have never known her to say no to a request for help. I am proud to recognize Alice Lauber with the Award of Merit.

—Pat Bender

Gwen Kelaidis

Gwen Kelaidis has been contributing to the North American Rock Garden Society for a number of years. On the local level, she served as Chairman of the Wisconsin-Illinois Chapter and as Secretary and Newsletter Editor for the Rocky Mountain Chapter. On the national level her most obvious contribution is the professionalism she has brought to her eight-year tenure as Editor of the *NARGS Quarterly*. Her innovations have included covers with color paintings, many more color photos inside, and a number of issues which have focused on a central theme. She is consistently turning out a product of which we can all be proud.

Before that, she was the botanical editor of *Rocky Mountain Alpines*, the book which first made many of us aware of the wealth of wonderful rock garden plants in our own country. The years in which she ran her seed business, Rocky Mountain Rare Plants, are the years in which many NARGS members were first able to obtain the plants that the book had shown. She spent countless hours in the field collecting seeds, (a hot, back-breaking task), and she collected always with an awareness of the environment, never taking too much seed from any one population and always collecting at new spots. A perusal of some of the old catalogs will show the diversity from year to year, reflecting her careful, sensitive collecting.

She has also written articles for the *Quarterly*: an article on troughs, always one of her garden passions; another on *Eriogonum* taxonomy, a much needed discussion; and one which demonstrates her understanding and appreciation of plant communities, "A Persian Carpet Rock Garden." She has been an excellent and much-sought speaker, both at Study Weekends and at local chapter meetings. The variety of topics show the range of her knowledge.

These are the things that everyone knows. Those not living near Denver, and therefore not privy to the big spring plant sale there, may not be aware that Gwen is also an outstanding grower and propagator. The lucky attendees at the sale have been going home with Rocky Mountain plants previously unavailable, unknown plants from Turkey or almost any part of the globe, all beautifully grown by Gwen. Her gardens are known to many through the pages of the *Quarterly*; they reflect her skill and artistry as a gardener and the breadth of her interests.

Days spent in the Rocky Mountains with Gwen are enlivened by her interest in the mountain environment, her curiosity, her botanical expertise, and her strong sense of humor. She brings two marvelous children with her, is ever willing to go higher, is a wonderful friend—and always knows when to stop for lunch. A friendship of almost ten years has brought a great respect for her as a person, for her abilities, and for her plantsmanship.

—Anne Spiegel

ACCESSORIES

Creating Temporary Trough Shade

We have in various parts of our garden nine large troughs and five smaller ones made of hypertufa. As we have two 70-year-old maples along with a catalpa, an ash, and other neighboring trees of the same age that cast shade at different times of the day, there are some troughs that become shaded in morning or afternoon, and others that get no shade at all. As my mother also has a small garden with several troughs, but that is fully exposed to the sun, excepting for the shade of her house in early morning, we have been able to compare how plants vary in response to different amounts of direct sun. The temperature can drop to about -10°F in winter and rise to more than 100°F in summer. Often our summers involve a stretch of ten to fifteen days of extreme heat. We have found it is very dangerous to do any overhead watering later than about 9 a.m. in such weather, as it seems to 'cook' the plants. We do deep waterings once a day in the very early morning. Late afternoon or evening watering causes us to be inundated with slugs, snails, and earwigs during the night. And we all know what kind of damage that does!

During these periods of extreme heat I was having some problems keeping my Aretian androsaces going, as well as some of my saxifrages, especially *S. oppositifolia*, and *Dionysia involucrata* and *D. hissarica* . Whilst walking through a gardening shop I discovered a product called Solartex Sunscreen. It is a high-tech, outdoor fabric made from super-strong Monolon fibers. It blocks 70% of the sun's UV rays yet breathes to let light and air through. Being a knitted fabric, it can be cut in any shape or direction without unraveling. It comes in neutral light colors such as beige, pearl gray, and a gray green (also dark, for other purposes such as porches, privacy screens, window awnings, etc.). This seemed to be a good and inexpensive product to try. It comes in 6′ to 12′ rolls and can be bought by the yard.

Next, we made a trip to a plumbing store and got 6′ lengths of 1/2", white PVC piping. As our troughs mostly stand about 36" off the ground, we decided on the heights of the four legs to clear about 12" over the tops of the plants. Then we measured the four top-frame lengths to be about 8" greater than the trough dimensions. To make these you'll need 4 1/2" PVC elbows for the top screen, as

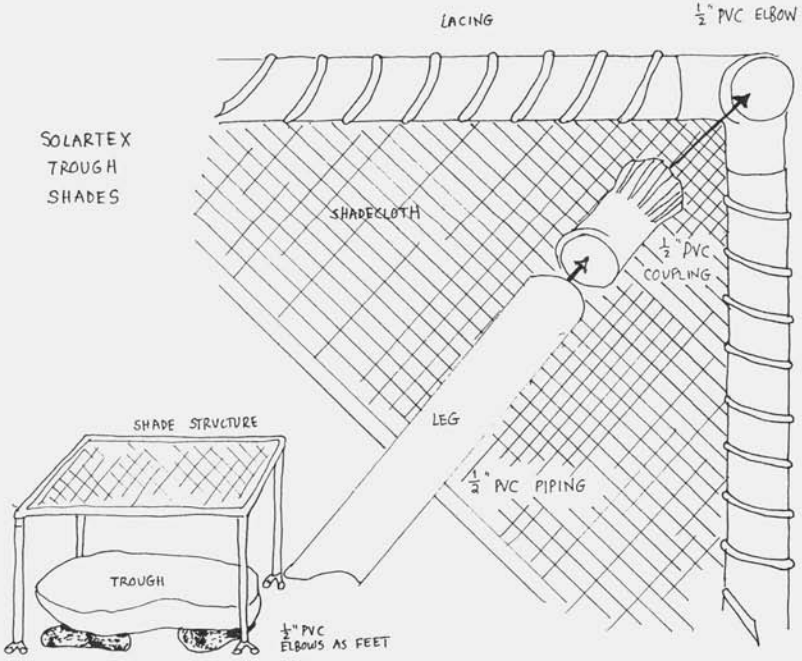
well as 4 1/2" PVC couplings. For the feet we used four more 1/2" PVC elbows, as these stabilize the screen. Solartex sells a lacing cord, 50' to a packet, that is used to lace the fabric to the PVC piping.

Depending on sun exposure, one can make two legs shorter, so that the screen is tilted at a slant. Also, we have some troughs near window wells and need to make the back legs of our shades very long, to stand in the wells. As the legs and screens can be easily taken apart winter storage is no problem. We also discovered that during the fall and spring dropping of maple blossoms and seeds these screens saved us hours of cleaning away such debris on top of the troughs.

During the three years in which we have used these screens, we have seen dramatic changes to all of our alpines, but especially the more difficult cushion types. *Saxifraga oppositifolia* plants not only no longer struggle with death but expand so much that we have to cut them back. (Cuttings root easily at any time of the summer.) Androsaces and douglasias bloom prolifically. *Aquilegia jonesii* puts out flowers as it never did before, and all our *Asperula* specimens cascade in floating clouds of pink. Dionysias simply no longer die, and *Paraquilegia* plants are able to go right through these extreme heats.

All this is wonderful news for those who have struggled with this same problem. Probably I should mention that we have a very dry climate, so I don't know how these screens would function in a very humid one. As the screens don't seem very aesthetic to us, we take them off in the late afternoon and put them back on in the late morning. That way we can look at our plants without inhibition!

—Francesca de Csipkay



NARGS Coming Events

Eastern Study Weekend: 'Ontario Underground'
Jan. 30—Feb. 1, 1998
Toronto, Canada

Western Study Weekend: 'Widening Your Horizons'
Feb. 27-Mar. 1, 1998
Alpine Garden Club of British Columbia
Richmond, British Columbia, Canada

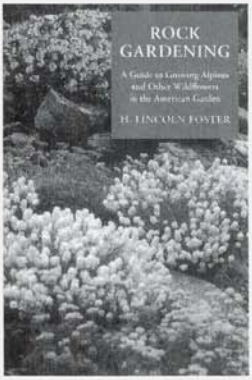
Annual Meeting July 1-5, 1998

Eugene Hilton, Eugene, Oregon
speakers: Harold McBride & Adolf Ceska
Hosted by the Emerald Chapter, NARGS

Plan now to join us next 4th of July for fun and fireworks in western Oregon. Highlights will include day-long field trips to premier wildflower areas of the Western Cascades, as well as garden tours, speakers and slide shows. There will also be a book sale, an art display and sale, and a plant sale with offerings from many fine Northwest specialty nurseries. Visit the new NARGS-sponsored, 3000 sq. ft. public rock garden, built and maintained by the Emerald Chapter with the help of the city of Eugene, and generous contributions from nurseries and community members. The brochure will be included in the Winter *Bulletin*. Register early as registration will be limited.

Get two classic Timber Press books for one low price

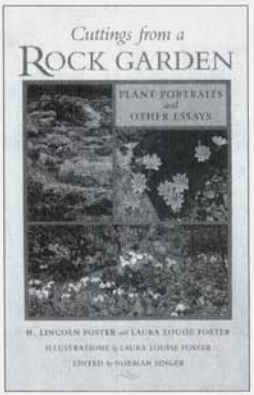
H. LINCOLN FOSTER and his wife, LAURA LOUISE "TIMMY" FOSTER, were an inseparable horticultural team during their long and productive lives. Linc served two terms as president of The American Rock Garden Society, and Timmy acted as editor for the society's bulletin for a number of years. They jointly received both the prestigious Arthur Hoyt Scott Garden and Horticultural Award in 1978 and the Silver medal of the Massachusetts Horticultural Society.



Rock Gardening

This book, called "the bible for American rock gardeners," covers all aspects of designing, creating, planting, and maintaining a rock garden for both beginners and experts. It includes detailed instructions for using rocks in the landscape as well as many landscape planting ideas. The heart of the book is a descriptive catalog of more than 1,900 individual plants in 400 genera, with cultivation information for each, illustrated by Timmy's lovely line drawings.

0-917304-29-2, 466 pp, 70 line drawings and diagrams, 5½ x 8½", paperback © 1968
Regular price $24.95, **NARGS price $20.00**



Cuttings from a Rock Garden

Edited by Norman Singer

Now available for the first time in paperback, *Cuttings from a Rock Garden* gathers together essays and articles the Fosters published over a 30 year period, providing the next level of information for rock gardeners. It features Linc's closely observed plant portraits, in which he describes how to grow more than 100 genera. Timmy also tells the story of how in 1949 the Fosters came to Millstream House and turned a woodland mountainside in Connecticut into one of the most enchanting rock gardens in the world.

0-88192-377-X, 446 pp, 14 color photos, 43 line drawings, 6 x 9", paperback © 1990
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