

# BULLETIN

*of the*

## AMERICAN ROCK GARDEN SOCIETY

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[Double flowers are often unattractive,  
but here is a fine one which yielded:]

## A ROCK GARDEN THRILL

THREE years ago I had a thrill which I shall never forget. When my rock garden was built, a pool was included, and on one side of it dense shade was produced by two large maples and a white birch,—just the spot, it seemed, for a wild garden. At that time I knew but little about our native flowers, so ordered several which were offered in various catalogs, and planted them out.

Early one April morning I walked down to see if by chance any green thing might be showing. To my surprise and delight, six perfect little “white roses” were holding up their dainty heads, and seeming to nod to me. The leaves told me that they were bloodroot, but I had never before seen a double one! So I spent most of the day admiring them, and reading everything I could find in magazines and books concerning this eastern native, *Sanguinaria canadensis*.

My eyes being in this manner opened to the beauty of our wild flowers, I am now trying other kinds. As many of them are reported to prefer acid soil, I have been covering the bed each fall with pine needles and oak leaves, and have even applied a bit of aluminum sulphate. In spite of the fierce competition from the roots of the maple trees, all my wildings seem happy. The original six bloodroot plants have by now increased to twenty-six. Each spring it has been a pleasure to see how many more there are, and to recall my original thrill.—MRS. J. M. HODSON, Greenwich, Connecticut.



BY MRS. J. M. HODSON

### A ROCK GARDEN THRILL

The "Little White Rose" flowers of double Bloodroot.

# BULLETIN

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## AMERICAN ROCK GARDEN SOCIETY

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### PREJUDICE IN ROCK GARDEN DESIGN

FLETCHER STEELE, Boston, Mass.

WHEN considering Prejudice in Rock Garden Design we turn to the Oxford Dictionary for a couple of definitions. What is meant by 'prejudice' in this connection? The dictionary calls it "an unreasoning predilection." Note that it says "unreasoning," not "unreasonable." It is a conclusion reached without benefit of exploring thought. It may be wise or foolish, right or wrong. In any case it is a bias, accepted blindly. It may be shared by others, in which event it is apt to breed a fashion. But even wide-spread popular support cannot make sense of a prejudice, as those who do not sympathize with it are quick to agree.

The second definition concerns the Rock Garden itself. The dictionary defines it as "a garden consisting of rocks and rock plants," which is clear, though scarcely kind. We must admit, however, that it is a horticultural *tour de force*: an artificial adjustment of exposure, soil, irrigation and drainage made to facilitate the culture of a special group of plants. Because it changes topography and uses masonry in new ways for new purposes, it is an original factor in landscape design. In fact, it is the only novel introduction, different in kind from any other thing, which has been evolved since the adoption in the 18th century of the naturalistic style of landscape gardening.

Horticultural purpose makes our Rock Gardens unique. In the Orient, Rock Gardens are as old as the culture of China itself. They are compositions of rocks on which nothing grows. In Renaissance Italy and France grottos and small hills were built of rough stones to bring out the formality of architecture by contrast, and because they were considered romantic. Their planting was given no special attention. All through Victoria's reign, lower middle-class English people were devoted to their "Rockerries" on which nothing could be persuaded to stay alive. Only our Rock Gardens have been constructed to accommodate a fastidious type of plant life. From the first their success has been measured by the prosperity of the plant experiments.

No particular style of design was inherently required by the floriculture. It is perhaps a trifle easier to build a pool or a moraine square or round and to set rocks in a row. Indolence might well have encouraged architectural formality in their design. However, this did not happen. There has always been an assumption amounting to a prejudice that Rock Gardens should have what is called a "natural" appearance.

Considering their components, this is a contradiction in terms. The plants are largely exotic. Unnatural soil and drainage conditions are established. No gardener who know his a-b-c's could be fooled into supposing that Nature made them. They are patently artificial. Only the millinery is naturalistic.

Moreover, if somebody should come along to build successful moraines and provide other satisfactory growing conditions on a straight line pattern, it could not be denied that he made a Rock Garden of sorts, little though we might enjoy it. In fact, it is prejudice to think that the naturalistic style has a monopoly on Rock Garden design.

How then, did it get such a firm hold on the imagination? The student of garden history finds that the timing of its development explains a good deal.

That there are charms in Alpine plants was a discovery of the Victorian era. As early as 1877 young Henri Correvon proved that they could best be cultivated in association with rocks implanted near them. This attracted the Englishman who had been wondering for some time what to do with his Rockery. Farrer is authority for the statement that he bred the vulgar things to the new Swiss contraption and the Rock Garden was born. That they can quickly revert is evident today on many a suburban American terrace.

In Victorian days naturalism in gardening was more than a fad. It became a cause promoted by its adherents with the blind, passionate prejudice of extreme partisanship. It is amusing to us now to read the arguments which seem excited out of all proportion to the urgency of the subject. They make Nature sound like a virtuous heroine in danger of being wronged by some villain in a formal garden. Sir Reginald Blomfield, a peppery architect, was the criminal who tried to make a servant of Nature in his classic landscapes. Nature's protector was a violent, noisy fellow called William Robinson. Blomfield vigorously harangued that the tradition of England was on his side and switching allegiance to ill-bred, formless Nature smacked of treason. Robinson went him one better by swearing that God, Himself, was on Nature's side. He proclaimed that he was God's prophet to the garden world and that all were sinners who did not cast away their architectural idols and bid Nature welcome right to their front door.

Robinson was not a clear thinker. Nor, in fact, was he consistent. For while he was cursing formality in others he continued to build formal paths and beds at his own place. Nevertheless, his propaganda managed to bring naturalistic effects much nearer the house than the 18th century landscape gardeners had been able to do. His followers were legion and Victorian Englishmen were sentimental about Nature, anyway.

It was this crowd that invented the Rock Garden. It was destined that they should turn to the naturalistic style when groping with the new design. The impulse to follow the mode is a powerful implement of prejudice.

There were other agents, too, which fostered the movement. Both horticulture and knowledge of plant associations helped. William Robinson was not the one who discovered the charms of Alpine plants. He was a promoter, and never discovered anything. It was sincere English gardeners who found them while on jaunts to Switzerland and the Tyrol. They were fascinated by the mountain flora. English gardeners are covetous. They want to possess at home every plant that interests them abroad. So they collected Alpines and took them to England. There, to make the plant comfortable and to recall memories of its Alpine home, they reproduced in their garden a wee bit of its original environment.

The floral background was pretty much natural in the Alps. At most the meadows had been cultivated by nibbling goats and cattle, which keep groundcover low everywhere. Moreover, mountain plants rarely try to grow tall. So the travelling Englishman saw an even carpet covering the careening earth. This was part of his memory and had its effect on the design of his Rock Garden.

Similar, if less exact mental pictures, found a place in the imagination of many who had never seen the Alps, much less the Balkans or the Himalayas. They were generated by the words of explorers. A trickle of publications swelled to a flood of books around 1910. They told about rare, distant mountain flowers and how to make a place where they would consent to grow. The climax came in "The English Rock Garden" by Reginald Farrer which was written in 1913.

Farrer was an exceptional man. He liked botany. He loved plants, particularly small, delicate plants. And he had a roving appreciation for the beautiful, remote worlds where he went to find them. Best of all, Farrer had a genius for writing descriptions. And an integral part of his plant portraits were suggestions of the local background. He gives us power to visualize legendary landscapes and to want to have them with the plant.

The gardener in England could not have a Swiss background for his flower. However, he could stimulate remembrance by setting one stone near which his plant could nestle. He could not have a Himalayan meadow, but he could imitate a bit of scree for his blossoms to cover in springtime. Distant scenic grandeur was perforce relegated to his dreams. In the garden he brought scraps of it to earth.

So from the beginning it was details that controlled the Rock Garden design. It was the single plant, the single protecting rock, that counted: the wee images of natural slopes; of crannies in a mountain ledge; of open Alpine country. For different plants the gardener provided different horticultural settings which were, in a fashion, samples of unrelated foreign landscapes. Each foot of his work represented an acre somewhere else. Though he did not realize it, perhaps, he was continually using a reduced scale, which is a classic rule in the art of miniature making.

Sooner or later each sample was hitched to the next, and an overall pattern was created, regardless of the gardener's indifference to that phase of his design. For our impression is that he was so exclusively fond of details that he failed to see what he was doing by and large. He merely got used to it as he went along. If he took time out to think, probably his conclusion was that a hundred details of nature when added up must perforce come to a natural conclusion. But his neighbors were astonished. The place did not look natural to them. On the contrary, what they saw was more like an extremely fancy garden crazy quilt. It was made of eccentric lumps of earth heaped in some places and lying flat in others. Absurd stones stuck up hither and yon, making one imagine a doll's burying ground.

The plants, too, looked foreign. They had none of the wilful variation in height and form usual in the neighborhood, where everything from trees to moss was all mixed up. Instead they all hugged the ground, like a sort of cut velvet without benefit of a Genoese design. Here and there a self-conscious bush or stiff evergreen bolted up over the groundcover.

The neighbors were not used to this sort of thing and joked about it. Thereupon a crotchety stubbornness overcame the gardener and blinded him. He felt that he was right. He refused to acknowledge that his garden was queerly artificial. He said it looked like something that Nature *might* have done, even if she never did. He argued that there was no geometrical formality about it, which was easy to see. He continued that "What is not formal must be natural. There is nothing in between."

It is lack of careful thought to suppose that there are two divorced styles of gardening, formal and naturalistic. There is only one style with combinations of the two in varying proportions, just as there is only one water which turns to ice at one temperature and to gas at another. The extremes in gardening are nearer together than ice is to gas or even to boiling water. Some people, to be sure, will use none but native plants and consider it virtuous to have no sign of man in the garden. Directly opposed to them are formalists in China whose gardens have no plants at all, and others in Paris who make trees of concrete. Most of us find a comfortable ground between extremes. We know that any sort of garden interferes to some extent with Nature, even though we use Nature as a model. Which side of Nature is chosen to copy is a matter of preference. Some enjoy the geometry—the sharp, straight edge of the horizon at sea—the perfect circle of the full moon—the unyielding arc of the rainbow—the axial symmetry of a tree mirrored in a quiet lake. Such people use these forms in their gardens. Others find satisfaction in Nature's semblance of freedom, though if they knew enough to understand natural laws they would realize that there is no freedom in Nature—only a complex of interacting attractions and repulsions. People go on dreaming, however, that leaves scattered by the wind are more free than those in the compost; that haphazard trees in the wood are more "natural" than the rainbow; that the rocks irregularly dropped by a glacier are more to Nature's liking than the true circles on a pond pushing away from a stone thrown in by a natural boy. Nature's gradations from rigidity to eccentricity are imperceptibly slight. It is hard work to follow them. It is easier to lump extremes which are obvious. However, this encourages the habit of mental blindness and that, in time, takes pride in its limitations and becomes prejudice.

Victorian wishful thinking about the freedom of Nature was further confused by an absurdly exaggerated conception that all Nature was beautiful. It is an indulgence to allow that half what Nature does is beautiful to the honest eye. We need not resort to ice-storm or hurricane to prove the point. Any breeze can knock the petals off a rose. It is blind prejudice to imagine that Nature is pretty more than once in a while. There is no inherent connection between Nature and beauty or between the performance of man and beauty. As far as man is concerned, only the artist (who to be sure lies buried in all of us) even bothers to hope that his works will please the eye. When he designs his garden the artist should be frank with himself and try to make his work of art more beautiful than any similar thing that Nature could do. For man's chief claim to credit is his God-given ability to improve on all that Nature has to offer.

From Nature's angle, on the other hand, man might as well be modest. There is a lot about her ways that we have not yet discovered. Her laws are intricate and her order is 'way over our heads. At most we gardeners can only fumble with her a-b-c's. We obey some of her simplest directions at pain of utter frustration. For us to say that what we do is "natural" is to presume that we know all her laws and can follow them, which is childish.

The honest designer knows that what he makes is in his own image. It is an attempt to put in concrete form some picture in his own mind, at most using Nature as his model just as a sculptor does. When his garden is done, it is a composition of rocks and dirt and plants, doctored and petted and changed. The only Rock Gardens which even remind us of Nature are those which have been neglected and forgotten. In time they begin to look natural because they are natural.

So our honest designer tries to see with a clear eye. He avoids the word natural as tending to confuse his thought. Whether he plants a wood, a farm or a Rock Garden; whether he moves in a naturalistic manner or stiffly with straight rows of corn in a field, all that he does is art, and the style a superficial decoration.

The artist learns that divers mediums and ideas have each one a size and scale that is appropriate. The material itself seems to demand it. The Rock Gardener is subjected to such pressure from the first. He knows that he cannot cover a hillside with happy *Lewisia* or stop a Weeping Willow from growing tall. Such things may be theoretically possible. But the plants would not consent. They have other impulses and would defeat him.

Rock Gardens are small by force of circumstance. Each detail requires thought, time and money to construct. There doesn't seem to be enough of these precious elements to permit us to spread over many acres like an orchard or a lawn. Even if we could build them vast, it is impossible to imagine how we, the most personal of all gardeners, could give the place the careful, intensive maintenance that rock plants need and deserve. A large garden would not satisfy us, for a good part of our gratification comes from devotion to individual plants and flowers. We do not want ten thousand of each one. If they spread too fast we call them weeds. We are perfectionists who are happiest when dealing with particulars. We are content with much in little. All conspires toward designing the Rock Garden as a miniature among gardens.

The miniature has virtues that set it apart from other works of art. Perfection in tiny form thrills us all, both learned and simple. It carries us to Fairyland, for instance, in our great, clumsy Art Museum. The expert is fascinated by the exquisite carving of Greek gems. All of us delight in the wee elegance of the gold and ivory lady from Ur. No exhibit ever attracted the general public like the series of miniature rooms made by Mrs. Thorne. Miniature making in all classes of art stands out as a unique and excellent undertaking. The Rock Garden is miniature by nature, and its greatest opportunity as a subject of design lies in development of its miniature character.

The first requirement of a miniature is consistency throughout. The illusion of Fairyland is destroyed when anything is introduced that is out of scale. And the total size must be small enough to be in proportion to the delicacy of the component features. This enables us to take it all in, as a unit of design, which is one of a miniature's merits. When a work of art gets too big to be comprehended as a whole, it tends to confuse instead of pleasing.

Understanding of miniature unity is helped by giving it a measure of detachment from its background—enough so that there is no suspicion of mingling tiny and normal scale. No one would scatter doll house furniture on the floor of a room, between ordinary chairs and tables. That would not please but rather would annoy the heavy-footed visitor. Likewise, our Rock Gardens should not be confounded with the landscape.

To be sure, an artist can use rock garden details to embellish other gardens, as we hang small pictures on the walls of a room. This has been done within the general framework of Wild Gardens, where rock garden items have been introduced here and there. To be successful they must be subordinated to the larger design. Such places cannot properly be called Rock Gardens, however, any more than rooms decorated with miniatures can be themselves considered miniature.

While the miniature quality of a Rock Garden may be regarded as inherent, yet small size does not connote any specified trimming or style. The designer is free to move in any manner on condition that he observes the rules that govern the scale of his work. He is free to introduce as much naturalism or formality as he chooses, always provided that horticulture is satisfied.

As the situation now stands, of course, we have no way of judging whether a good deal more formality in Rock Garden design would be agreeable or disagreeable. Prejudice says that would be offensive, but in fact we have little evidence on which to base such a conclusion with intelligence. And again we must remind ourselves that when somebody comes along and makes a formal Rock Garden, it may be a very good Rock Garden. For the whole history of art proves one point if it does nothing else. It shows that a genius can rearrange and re-compose old familiar materials in a fashion that stirs and pleases us. And at the same time, he knocks into a cocked hat all our preconceived notions. It would do no harm for all of us to make experiments along fresh lines now and again.

Those who have watched the art of gardening during the last generation have observed that the greatest improvements have been achieved in small, almost trivial items, one in particular. The enduring enthusiasm of the Garden Clubs in trying out programs of Flower Arrangements has amounted to a thorough training of thousands of exhibitors and spectators in simple exercises of aesthetic composition. The plans have covered every contingency in a scientific way. They have called for solutions that were elementary and elaborate, sensible and fantastic, loose, natural or rigid. The consequent improvement in Flower Arrangements has been notable and now one rarely sees an exhibit that is not thoughtfully composed to the last detail. The exhibitors have become true, if limited, artists. Having tried everything, they show a wide range of untrammelled, unprejudiced opinion in matters of design. Each one goes her own way and exercises her individual creative imagination and judgment.

Would that Rock Garden designers had been put through equally stimulating exercises! Instead they followed the heavy hand of Victorian pattern prejudice. The outside frame of their gardens varies. But the floor design is repeated over and over again till all look to have been cut from the same cloth. All have the same slopes, bumps, stones and plant form. Rock Garden design got in a rut long before it could show its exceptional potentiality for original treatment. With their wide range of appropriate features, Rock Gardens can be composed in a great variety of ways, all of which would please the plants; all of which would enhance the beauty of the flowers; all of which would be works of fine art. It is a pity to be tied down by preconceived rules of design, made by foreigners before we were born. Our only obstinate limitations are lack of time, money and labor. In our vision, our desires and our design, it is our own fault if we are not free.

[Danger to our rock garden treasures  
lurks in the rapid multiplication of:]

## TWO NATURALIZED ORNITHOGALUMS

A FEW months ago, in a number of *Horticulture*, a Kentucky gardener pointed out certain merits of the Star-of-Bethlehem, *Ornithogalum umbellatum*. In many regions, however, this is one of the most pestiferous of weeds, and if allowed to become established in a rock garden will soon crowd out more delicate species.



*Ornithogalum umbellatum*



BY EDGAR T. WHERRY

*Ornithogalum nutans*

More restrained in behavior, on the other hand, is the Nodding Star-of-Bethlehem or Graybells, *Ornithogalum nutans*. This blooms in early spring—late April at latitude 40°—several weeks ahead of its rowdy relative, and the lovely little lilies are actually gray in hue. Its grass-like foliage soon withers away, leaving space for later-developing plants; but its bulbs produce abundant offsets deep down among the rocks, so that nothing short of complete upheaval will get rid of it, should the space it occupies ever be needed for some different plant. However, if one has a barren spot where little else thrives, Graybells may be planted there. As it is rarely offered in the trade, it may perhaps be placed in the Society's Seed Exchange.—E.T.W.

[Two little-known plants deserve a most cordial welcome to our rock gardens:]

## AQUILEGIA JONESII

FOR exquisite form, for appealing color, for neatness and general good behavior *Aquilegia jonesii* ranks high amongst the choicest rock garden plants.

Its decorative foliage hasn't a dull moment, light silvery gray, typical *Aquilegia* leaves, though so closely sewn on the stem as to look whorled and rosettish. Flowers are the same lavender-blue and white combination as in *Aquilegia coerulea*, but somewhat smaller. The long spurs give them a grace and balance which saves their large size from looking gnome-like on such miniature foliage.



BY KATHLEEN N. MARRIAGE

This treasure's home is in rock crevices in full sunshine far enough north (Montana) not to take kindly to hot spots in a rock garden much farther south, yet its foliage requires sun and dry conditions to keep its color attractive; so where to place it? With us it seems happiest in a west-facing rock garden severely drained, with little food, but a spot of peat-moss, tucked in between lichen-covered sandstone rocks. Here at 6,000 feet it does well in full sunshine, and there's brilliant sunshine almost every day. Summer day maximum temperatures are as high as 95° while at night it's rarely above 60°; minimum for winter 25° below zero.

What color is the type *Aquilegia jonesii*? Excited protests came forth when I showed my kodachromes of it. "But *A. jonesii* is all blue, no white." I have from seed—the generous gift of Mr. Worth, plants in all other respects according to Hoyle,—or Jones; the flowers are all lavender-blue and white, except one plant which is all white. Not one of the litter is all blue. What color have you?—KATHLEEN N. MARRIAGE, Colorado Springs, Colo.

## THE SIERRA PRIMROSE

HERE is a primrose unlike any other species. The densely leafy stems lie flat on the ground, and branch into extensive patches. Its leafless flowering stems are but 2 or 3 inches high, the flowers having a delicate rosy hue. Both foliage and flowers have pleasing fragrance.

I well remember the first time I saw this lovely alpine plant. Back in 1882, when I was 21 years old, I spent some weeks in botanizing around Donner Summit, in the pass traversed by many a pioneer when the west was being settled. I had climbed a high peak, and to get to the base of the cliffs on its northwest slope, I wedged my way down a crevice. The snow there had melted away over an area of an acre or so, and three striking plants were in evidence: in the rock crevices were tufts of leaves of *Heuchera rubescens*; and scattered about were clumps of a white-flowered anemone about a foot in height. But the real thrill was to see most of the ground covered like a lawn with the primrose, in full bloom.

Sierra Primrose (*Primula suffrutescens*) is not easy to grow. I have been able to bring it to flower at my lower altitude only once; but it is so lovely as to be worth any amount of trouble to have it in one's rock garden.—CARL PURDY, Ukiah, Calif.

[Bulb-ordering time is near; here  
are suggestions from an expert:]

## BULBS FOR THE ROCK GARDEN

WILLIAM N. CRAIG, Weymouth, Mass.

MANY sorts of bulbs are available for culture in the rock garden, and the use of a careful selection of them will ensure cheerful touches of color over a long season, particularly at periods when there are few herbaceous species in bloom. Indeed, when climatic conditions are favorable, one can have bulbous flowers throughout the first six and the last three months of the year; and the gap can be closed if one cares to indulge in the more tender sorts, like *Moraeas*, *Tigridias*, and *Zephyranthes*.

Rock gardens are, of course, of various types and sizes, and in the larger, more elaborate ones we may use bulbous plants which would be entirely out of place in average small-sized ones. Indeed, in many of the latter, even such attractive sorts as the smaller *Eremuri*, the ordinary trumpet *Narcissi*, the Darwin or Breeder Tulips, most of the Lilies, and so forth, would not be in good taste.

The present article is intended especially for the beginner, who has a small-scale rock garden. When not otherwise noted, the bulbs discussed will succeed in New England, where the winters are rather long and cold, although there is usually a fairly good snow cover, while the summers are moderately warm.

As to soils, bulbous plants in general are not especially fussy, provided the drainage is always good. Virtually all of them succeed better when planted more deeply than usually recommended in the books. Heavy soils may be improved by adding some sharp sand; and if ground charcoal is available, it forms an excellent addition. Finely ground bone is a safe, slow-acting food for nearly the entire bulbous clan, and old, thoroughly rotted manure is excellent. Chemical fertilizers, on the other hand, are better left out. Leaf-mold is good for virtually all bulbs, and peat-moss is useful both as a mulch and a rooting medium.

The chief objection to the use of bulbs in the rock garden is that the plants are unsightly after the flowering period, when their foliage is ripening. It may of course be cut away, but this will result in having few or no flowers the following year. A better plan is to intersperse the bulbs among herbaceous plants which will serve as a screen.

Our earliest blooming bulbs are the Snowdrops (*Galanthus*). Some years *G. elwesii* even produces a few flowers in December, and its regular blooming season is in January and February. *G. nivalis*, in both the single and double forms, and can also be counted on for winter flowering. *G. byzantinus* is good, but alas not to be had these days. Plant the bulbs four inches deep for best success.

While Crocuses are grown in nearly every garden, only the large-flowered hybrids are widely known; but there are a number of species *Crocus* desirable for the rock garden, and a fair assortment of them are still in the trade, including fall, winter and spring bloomers. As a rule, the bulbs of these are smaller sized than those of the familiar garden types, and the flowers are even more charming.

Best known among the autumn-flowering sorts is *C. speciosus*; it has two varieties, *Aitchisoni*, pale lilac blue, and *albus*, white. A hybrid known as Barr's Purple is another late bloomer. Then there is *C. sativus*, the Saffron Crocus, purple with red style branches; *C. salzmännii*, purple with orange style, producing in fall leaves as well as flowers; and *C. longiflorus*, soft lilac with brilliant red stigmas, a very fragrant sort. When the weather is severe, these normally autumn bloomers will not appear until spring.

Members of the winter-flowering section, which in the vicinity of Boston flower freely during mild spells in February and early March, comprise: *C. niveus*, snowy white; *C. chrysanthus*, orange yellow, with notable forms Dorothy, canary yellow feathered with bronze, and Snow Bunting, creamy white with old gold center, a real gem; *C. imperati*, violet and fawn colored; and *C. vernus*, which in variety Storm Cloud is silvery lavender. Of the mid-spring bloomers the following have special merit: *C. sieberi*, pale lilac; *C. moesicus*, usually offered as *C. aureus* Anatolicus, golden yellow; and *C. biflorus*, of which the best varieties are Parkinsoni, striped purple on cream, and Weldenii albus, white with pale violet stripes.

Any and all of these Crocuses are more persistent if planted four inches deep (instead of only half that depth, as often recommended.) They have one vile enemy, the attractive but terribly destructive gray squirrel—it might well have been named the Tree-rat. Before planting, spread out the bulbs in a shallow box, scatter a little arsenate of lead over them, moisten, and stir well with a stick. Then add a few drops of thinned coal tar, stir again, and finally dust with lime. The bulbs will look rather messy, but they will grow, and the rodents will leave them alone.

Chionodoxas are lovely little spring bulbs, at present rather hard to secure. The best known species is *C. luciliae*, blue with white center; it has several forms, the largest and most striking of which is *gigantea*, but there also *alba*, pure white, and *rosea*, pink. The closely related *C. sardensis* bears more flowers on the stalk, and they are darker blue. The flowers of Glory-of-the-snow, as these plants are known, face upward as though for our inspection. They seed rather freely, and the seedlings are variable but interesting. *Scilla sibirica*, similar in color to the preceding, but with nodding flowers, is also temporarily scarce. Its forms are fine when planted in masses or drifts, and it increases rapidly by seed. Certain other Scillas in the trade, such as those offered under the names *S. campanulata* and *S.*

*nutans* (the valid names of which according to Hortus are respectively *S. hispanica* and *S. nonscripta*) are rather too robust for the rock garden and are better planted in open woodlands.

Many species tulips are excellent for the rock garden. Perhaps the most esteemed is *T. clusiana*, the pale but fragrant-flowered Lady Tulip. Another still to be had in moderate quantity is the Waterlily Tulip, *T. kaufmanniana*. This is about the earliest blooming member of the genus, sometimes appearing here even in March, and always by early April. Others of lesser size are *T. biflora* var. *turkestanica* and *T. dasystemon*, both of which carry several of the small white flowers on each stalk. The rather late-blooming *T. sylvestris* produces a graceful little yellow flower. With larger blooms, and brilliant in the extreme are *T. eichleri*, *T. fosteriana*, and *T. praecox*. The Duc Van Thol tulips, *T. suaveolens*, have very large flowers of various colors, but are dwarf, never over 6 inches high. In planting these should be set at least 6 inches, the larger-bulbed ones 8 inches deep.

Narcissus species are numerous, and but a few can be mentioned here. For the beginner, the most desirable are *N. triandrus* (albus) the Angels Tears, and *N. bulbocodium* (especially the larger form, *conspicuus*), the Hoop-petticoat. Later one may add the slender *N. cyclamineus*, the rush-leaved *N. juncifolius*, and the tiny horticultural form of *N. pseudo-narcissus* known in the trade as *minimus*. The last is extra early, having even opened here in late February, and usually in full bloom by March 15th. Various horticultural derivatives and hybrids of these are offered in the trade under the names *minor*, *nanus*, etc. The Jonquil, *Narcissus jonquilla*, should be in every rock garden, for its delicious fragrance is unforgettable. I like the few-flowered single form offered as *simplex* the best. And do not overlook the Orchid Narcissus, *N. triandrus* Thalia, which is regarded as deserving the premier place in many a collection. These bulbs should be planted just as deep as recommended for tulips.

Grape-hyacinths are mostly very hardy and persistent, and increase by seeding faster than almost any other bulbs. *Muscari botryoides* is represented in numerous gardens, but usually by a rather dull violet-blue color form; it may seed too rapidly for safety in the rock garden. Its pure white variety *album* is very lovely, as is the bright blue *caeruleum*, also known as Heavenly Blue. Still deeper in hue is *M. armeniacum*, while *M. conicum* is darkest of all. The Feather-hyacinth, *M. comosum* var. *monstrosum* (generally offered as "*M. plumosus*") blooms a month later than the others, and its fuzzy flowers are unique. The foliage of most of this genus persists throughout the season, but is not especially heavy.

Several of the bulbous species of *Iris* are particularly good for the rock garden. *I. reticulata* is by far the most generally satisfactory. It produces deep violet purple fragrant flowers very early—usually by March 25th here, and one year a week earlier, the five inches of snow which fell not harming the flowers in the least. It has several notable color forms. The lovely pale blue Cantab comes a few days earlier than the type, while J. C. Dyt, which blooms with the type, has reddish purple flowers. In Royal Blue the color is rich Oxford blue, while in the closely related *I. danfordiae* it is yellow. These Irises attain an average height of 6 inches, and while hardy outdoors are also admirable for pot culture in the home.

Colchicums while related to Crocuses and having similar flowers (in fall), are much less desirable in the rock garden because of the heavy foliage they produce in spring and summer. If you care to try one member of the genus, by all means get *C. speciosum album*—unfortunately scarce

these days. It is easily the loveliest of the lot, and if you succeed in getting it, you will be proud of it. But be sure of the species, for *C. autumnale album* which is commoner in the trade is rather miserable in comparison.

The pretty golden flowers of Winter-aconite (*Eranthis*) appear very early in spring. I have tried three sorts and like *E. hyemalis* var. *cilicica* the best; the hybrid *E. tubergenii* is also good, but at present one may have to be content with the type *E. hyemalis*. These plants are propagated by wrinkly tubers, which should be planted 3 inches deep in drifts or patches.

Fritillarias are excellent hardy bulbs, although some of the best species are not now obtainable. Desirable ones from our west coast are: *F. recurva*, red outside and rich yellow spotted red within the bells; *F. liliacea* whitish, *F. pudica* brilliant yellow, and *F. lanceolata* green and purple mottled.

The Leucojums, with their glorified snowdrop flowers, are interesting. The late-spring blooming *L. aestivum* is abundant in the trade, but the earlier *L. vernal*, lower and more desirable for the rock garden, is scarce. Actually most firms which offer the latter species send bulbs of *aestivum* instead. It is easy, however, to tell the bulbs apart: these of *aestivum* are stout, (like *Narcissi*) while those of *vern* are characteristically slender. A view of the latter in bloom in late March follows.



BY EDGAR T. WHERRY

The glorified snowdrop flowers of *Leucojum vernal*

A bulbous plant which I have grown for many years is *Ixiolirion montanum* (*pallasii*), known to far too few rock gardeners. Being a native of Siberia, it succeeds in the coldest parts of New England. The light airy stems rise to a height of 18 inches and are well branched upward, bearing lovely blue tubular flowers, after the latest tulips have passed. The smallish bulbs should be planted 4 to 5 inches deep, in full sun.

There are of course other genera which have bulbs—*Allium* and *Erythronium*, for instance—but discussion of these must be left for another article. We have indeed picked out a comprehensive subject when we consider bulbs for the rock garden.

# THE AMERICAN ROCK GARDEN SOCIETY

## GROUP REPORTS

Although reports from the various groups should probably have been published in the Year Book number of the Bulletin and plans had been made with that end in view, up to the time of going to press only two of these reports were in hand and it was decided to omit them rather than have so scant a showing; two other reports came in later but only one of the four received covered the year's activities. What are you doing and particularly what success you are having with the particular features you are using to attract attendance at your group meetings is of interest to the entire Society; we have used in the Bulletin reports of special activities as they have come in throughout the year but in the Year Book we should have a resume of the entire year. Some groups are well organized, some not organized at all and some are in the process so that a comprehensive report of all groups is not possible at this time; we are planning now for our next Year Book and we shall count on a complete report from all the group chairmen. We would suggest that you commence now to gather data for such a report, make a note of the highlights in your activities and of methods which you have found helpful in interesting your members, of subjects you have used and any suggestions you may care to make for the welfare of the Society; it will all look good in the next Year Book.

## SEED EXCHANGE

The following seed have been received since the last published list and are ready for distribution.

From Mrs. Clement S. Houghton, Chestnut Hill, Mass.

<i>Adenophora palustris</i>	<i>Aethionema schistosum</i>
<i>Allium carneum</i>	<i>Allium roseum</i>
<i>Bupthalmum salicifolium</i>	<i>Clematis Fargesii</i> Souliei
<i>Cimicifuga racemosa</i>	<i>Coryopteris claudanensis</i>
<i>Codonopsis clematidea</i>	<i>Deutzia mouberti</i>
<i>Dracocephalum ruyschiana</i>	<i>Grindelia squarrosa</i>
<i>Meconopsis superba</i>	

From Elmer C. Baldwin, Syracuse, N. Y.

<i>Asclepias curassavica</i>	<i>Asclepias incarnata</i>
<i>A. tuberosa</i>	<i>Echinacea purpurea hybrida</i>
<i>Edraianthus tenuifolius</i>	<i>Geranium sanguineum</i>
<i>Iris dichotoma</i>	<i>Linum perenne</i>
<i>Lychnis chalcidonica</i>	<i>Onosma stellulatum</i> var.
<i>Patrinia scabiosaefolia</i>	<i>Salvia</i> sp.
<i>Verbascum blattaria</i> (yellow with lilac anthers)	

From A. W. Priest, Peru, Iowa

<i>Allium Caratariense</i>	<i>Dianthus Noeanus</i>
<i>Geranium maculatum album</i>	

From Dr. Edgar T. Wherry, Philadelphia, Pa.

<i>Ornithogalum nutans</i>
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From Harold Epstein, Larchmont, N. Y.

<i>Anemonopsis macrophylla</i>
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The supply of the following seed from previous lists is exhausted:

Aethionema coridifolium	A. laricifolium
A. grandiflorum	Aquilegia glandulosa
Arenaria verna caespitosa	Campanula saxifraga
Draba lactea	Mazus reptans
D. sibirica	Saponaria saxifraga
Penstemon sepululus	Saponaria caespitosa
Primula cortusoides	Townsendia Worth B
P. japonica, red and pink	Zinnia grandiflora
Rydbergia grandiflora	

Do not neglect to enclose a self addressed, stamped envelope with your request for seed, to—MRS. HILDEGARD SCHNEIDER, 1751 Seminole Ave., Bronx, N. Y.

## OUR MEMBERSHIP ROLL

In the Yearbook for 1943-44, Bulletin volume 2 number 3 page 58, a membership list was published. Should anyone detect any errors or omissions in this list, please report them to the Secretary, and they will be announced in the Bulletin. In this connection, remember that we are still accepting new members, so if any of your rock-gardening friends do not appear in the lists, call their attention to the advantages of joining the Society.

A few errors were made in the addresses of some members as published in the Year Book; a few have changed their address since and nine new members have enrolled; the following addresses are, we trust, correct:

Bailey, Liberty Hyde	Sage Place, Ithaca, N. Y.
Baldwin, Elmer G.	400 Tecumseh Road, Syracuse, N. Y.
Ballard, Ernest	Colwall, Malvern, England
Boydston, Mrs. Kathryn E.	RFD. 3, Niles, Michigan
Creighton, William S.	171 Hudson Ave., Tenafly, N. J.
Gallagher, Mrs. Florine	2119 Benderwirt Ave., Rockford, Ill.
Harkness, Bernard	Moravia, N. Y.
Kovachoff, Mrs. Matilda A.	4034 Highland Ave., Kansas City, Mo.
Kurzrok, Dr. Raphael	Good Hill Rd., Southbury, Conn.
Mason, Mrs. Charles W.	Saluda, N. C.
Mayer, Dr. Edward F.	5601 Forbes St., Pittsburgh 17, Pa.
Renton, Mrs. A. J.	R.F.D. No. 1, North Bend, Wash.
Roccaty, Mrs. Mary	6282 Sheridan Dr., Williamsville, N. Y.
Wake Robin Farm, James Loder Park	Home, Pa.

We regret to announce the death on April 23, 1944, of Mrs. Theodore M. Knappen, of Washington, D.C., a charter member of this Society.

## SAXIFLORA TO BE REVIVED

The series of illustrated studies on notable rock-garden plants published in five numbers of Volume 1 of this Bulletin, was discontinued at the start of Volume 2 because of the difficulty encountered in obtaining suitable articles and illustrations. We are glad to report that Mr. P. J. van Melle, of Poughkeepsie, New York, has agreed to take over the editorship of this series, which before long will be started up again. Suggestions from our members as to plants which they would like to have treated in Saxiflora form, or better yet articles and portraits of such plants, will be welcome.

## SPECIALISTS IN ALPINES AND ROCK GARDEN PERENNIALS

**WILLIAM BORSCH & SON.**

Maplewood, Oregon

**CARROLL GARDENS**

Westminster, Maryland

**GREEN PASTURE GARDENS**

2215 East 46th Street  
Seattle 5, Wash.

**MITCHELL NURSERIES**

Barre, Vermont

**REX D. PEARCE**

Moorestown, New Jersey

**CARL STARKER GARDENS**

Jennings Lodge, Oregon

**PARAMOUNT GARDENS**

Plainfield, New Jersey

**UPTON GARDENS**

Colorado Springs  
Colorado

**WAKE ROBIN FARM**

James Loder Park  
Home, Pennsylvania

**ISAAC LANGLEY WILLIAMS**

Exeter, New Hampshire

**MAYFAIR NURSERIES**

MARCEL LEPINIEC  
*Rock Garden Construction*  
93 Highland Ave.  
Bergenfield, N. J.

**CLAUDE A. BARR**

Prairie Gem Ranch  
Smithwick, S.D.

**ZENON SCHREIBER**

*Landscape Design*  
2100 East Ridgewood Ave.  
Paramus, N. J.

**SANDY LOAM**

*Garden Lilies*  
North Springfield  
Vermont

WHEN YOU WRITE, "I SAW IT IN THE BULLETIN."