

*Cyclamen graecum*

# The Newsletter of the New England Chapter of NARGS October 2020

## **Zoom Chat! Saturday, October 17, 2020; 10:30 a.m. to noon or whenever we're done**

Come to share your summer experiences and see some familiar faces. (No masks!) Drought in your area? How bad? What steps did you take to deal with it? Just how strange *was* your summer? We'll start gathering at 10:30 as usual to chat and then start a slightly more guided discussion around 11. See page 3 of the newsletter for the link; we will also email the link and instructions a week before the meeting.

## **From the Chair-Elect**

*Estelle James*

What do you get if you divide the circumference of a pumpkin by its diameter?  
Pumpkin pi.

Now that I've broken the ice, I would like to introduce myself. I'm Estelle James, punster, your new chairperson. Now that sounds like another joke, but I digress. I have been a member of the New England chapter from the golden days of the 80's when we met at the Waltham Field Station, somehow managing to stay low in the bushes and avoid chapter commitments. So it's about time I woman-ed up.

During the day, I am the nursery manager at Pumpkin Brook Organic Gardening, an organic landscape business, Priscilla Williams, President. The job entails keeping the stock healthy and saleable, and the nursery grounds neat and organized. We also start specialty annuals and vegetables like lettuce, kale, tomatoes, beets, zinnias and so much more, all organically.

Just as the shoemaker's children are barefoot, so my own garden needs some serious landscaping chops. On my  $\frac{3}{4}$  acre plot everything is higgity-piggity, but I love them all, those beautiful, staunch warriors that survive in my hungry, acidic, sandy soil; I have come to peace with less than perfection. But this also explains my interest in rock-garden plants that live in spartan conditions, because, again, I have a lot of that.

I love being a NARGS member and coming to our meetings because there is always so much to learn. I have always felt smarter after one of our sessions. Now we are all learning how to survive as a group during these dismal times. I'm not sure how meetings are going to be held, but we have some very clever members and I know we can figure this out. Although virtual meetings are necessary now, I hope in the not too distant future to have the pleasure of greeting each of you in person.

I will close with Shel Silverstein:

"What did the carrot say to the wheat?  
Lettuce rest, I'm feeling beet."

## From the Lamé Duck Chair

Vivien Bouffard

I can hardly believe it, but this is my last “From the Chair” contribution! Estelle James is taking over the Chapter responsibilities in these odd times we’re in, and I know that the whole chapter is grateful and will be supportive. We miss our meetings and don’t know when we will be able to resume them. Best case scenario would seem to be sometime in the spring, but it’s possible that the 2020-21 season will be a total loss as far as in-person meetings are concerned. Our friendships and our plant interests continue, however, and we will try to stay in touch with each other.

Some creativity is called for, I’d say. If you have ideas, please come to the Zoom meeting prepared to share them. I don’t see why spring garden visits wouldn’t be doable; perhaps we’ll invent a hybrid of garden visitation with plant auction/sale, just for fun.

One thing we can do in the meantime is help with the NARGS Seed Exchange, which is definitely On. The deadline for donations is November 1, so now’s the time to gather up any seeds you’ve harvested and package them up. (Details on the NARGS [site](#).) We also can help by re-packaging seed, as we have the past few years. I plan to do some; **if you are interested, please let me know** as the coordinator needs to know how many taxa we can commit to. We will be doing this work in our own homes, not in groups, unfortunately.

Enjoy the newsletter - Jeremy Franceschi’s article is well worth spending extra time with, not to mention lingering over the photos of his amazing “trufa” creations. Hope it will inspire all of us to our own creative efforts. And “see” you on Zoom on the 17th!

## Surplus Seed Star - *Iris hookeri*

Harriet Robinson

Thanks to NARGS surplus seed, *Iris hookeri* is alive and well in my garden. It is a Maine endemic, native to the eastern half of the Maine coast and further up Canada’s Atlantic coast, so I am growing it a little out of its range in Maine’s western foothills. I’m the president of the Maine Iris Society, which is why I especially wanted to grow it. The beach-head iris is considered by some to be one of the most ornamental of North America’s wild irises. It is small (height listed as 8”; mine was shorter) so it would fit into a small garden. Some think it is an *I. setosa* but others have it as its own species. I got my seed at our chapter in 2015. It took 5 years from planting to bloom but it was worth the wait. Why it was named for Sir Joseph Dalton Hooker is a mystery to me. This plant epithet is used for species in various genres and honors a 19th century director of the Royal Botanic Gardens, Kew.



## From the Editor

In the April 2020 newsletter I commented on the effects of the COVID restrictions on our Society, referring to my would-be donations:

Among them are 7 lusty cuttings of Rosa ‘Autumn Splendor’, looking for just the perfect spots in the garden. And I imagine you’re thinking right now, *“There could have been no better spot than a plant sale.”*

That lament is all the more poignant now, when those cuttings are in lusty bloom and, given the glut of them as I rushed to plant, not necessarily all that well-placed.

Too bad; and I fear I have no offsetting cheery notes: the virus still reigns, the rains refuse to come, and the garden grows ragged around the edges – but, if you come right down to it, with enough bright spots to keep us happy.

*Jim Jones*



Below is the link to the October 17 Zoom Chapter Meeting. You may practice with it, if you wish; you can sign in and leave repeatedly.

Topic: NARGS meeting

Time: Oct 17, 2020 10:30 AM Eastern Time (US and Canada)

Join Zoom Meeting

<https://olin.zoom.us/j/95511323271?pwd=UHg4K09CajRtd3JEZWplSDhlQ1JMZz09>

Meeting ID: 955 1132 3271

Passcode: 457128

One tap mobile

+13017158592,,95511323271# US (Germantown)

+13126266799,,95511323271# US (Chicago)

We will send the link again in an email along with instructions, a week before the meeting.

## Adventures in Hypertufa

*Jeremy Franceschi*

In the early 2000s I made a few standard troughs using the usual recipes with satisfactory results. Then, around 2008, I read two articles in British garden society journals that got me thinking about other ways of using hypertufa.

The first was about the structures that the author's husband made for her in her rockless garden by forming mounds of earth several feet in diameter and height and coating them with a thick layer of hypertufa. He used plastic cups stuck in the dirt to leave planting holes in the layer for her rock garden plants. I liked the concept but not the scale and thought about making smaller versions of his project.

At the same time I was unhappy with the time constraints imposed by hypertufa's long cure time of 3-4 days to reach green stage, when it can first be handled & carved, and an additional 3-4 days to reach full working strength. I found that by eliminating the peat moss (or other organic substitute) from the recipe, the mix was green in only 8-12 hours & achieved working strength in another 12 hours! This is of practical value as it changes a week-long chore into a weekend project. It does mean, however, that shaping and carving should ideally be finished within 24 hours as the material will be difficult to work with after that. For the sake of clarity, in this article I will differentiate this inorganic mix from traditional hypertufa by calling it “quickmix”.



*Planted tufa block*

The second article, with stunning photos, was about planting in blocks of tufa. The results when successful were impressive, but the difficulties involved were daunting. The expense and availability of suitable material was the first hurdle, but that paled in comparison to the problems of dealing with a material that cannot hold significant quantities of water. Getting plants to establish root systems was especially difficult, but maintaining mature plants was also tricky. The author had achieved much of his success by suspending a large plastic soft drink bottle several inches above each rock and allowing water to drip slowly through a pinprick in the bottom of the bottle for hours each day. I thought this method to be both impractical and unsightly, and my enthusiasm for planting in tufa cooled.

Then it occurred to me that it might be possible to combine the two concepts to create hollow planting blocks filled with growing medium that – unlike traditional hypertufa, which is really misnamed because it has nothing in common with tufa – would look and function like tufa itself but without the limitations of either material. I could carve & drill the material to mimic tufa's convolutions and holes. Because of its physical similarity to real tufa, my sister suggested I give the material the name “trufa” to distinguish it from hypertufa.





*Planted tufa block*

By making hollow blocks with 1-1/2 inch-thick shells of tufa and filling them with a growing medium that was more moisture-retentive than the shells, the major drawbacks of real tufa – watering and establishing seedlings – were obviated, while the advantages – maintaining a dry surface and (hopefully) aesthetics – were retained. Availability and cost would also no longer be an issue.



*Tufa*



*Edraianthus  
in tufa*

I studied many photos of tufa before trying to simulate the look, and found that it can vary a good deal in color, texture, and shape. The color is usually a monochrome of tan or gray, the texture is pitted and pierced with so many small holes it resembles a natural sponge, and the shape is anything your imagination can come up with. Practicality does impose some limits, however. You'll want to leave planting holes for seedlings at least  $\frac{3}{4} \times \frac{3}{4}$  inch scattered over the surface, and you might want to have smaller holes if you're going to sow seed directly into the tufa. It's a good idea to leave a sizable planting hole on the top of the rock through which you can add more medium when the initial filling inevitably settles.

You'll also want to decide if your rock is meant to be seen from one vantage point or several. It's easier, from a design standpoint, to make a rock with a definite front and back so that you can concentrate on maximizing planting pockets on the front and sides that will be most visible, siting it with its back facing a wall. This arrangement might not appeal to you, however, and you'll want a design with planting holes on all sides. In any event, where to locate planting pockets is less of an issue if you create the convoluted but homogeneous surface of a tufa rock than it is if you decide to simulate such non-porous rock as granite or sandstone because – if you want the planting pockets to look somewhat natural – you need to build in holes, crevices, fissures, and ledges where seed could logically take hold and grow.



The block will need a base to sit on, a dish that can hold excess water, perhaps even acting as a reservoir to permit the growing medium to wick-up moisture to the root zone. I considered bonsai trays, and used terra cotta dishes, but ultimately settled on making my own quickmix shallow troughs for the purpose. It was even possible to grow plants – especially semps and the grass-like dwarf *Acorus gramineus minimus aureus* – in the troughs around the base of the blocks to tie the two together visually.

The inspiration for shallow troughs came from the world of bonsai, where virtually flat rocks are sometimes used as bases on which soil is mounded to anchor the roots of the trees. This is a frequent presentation for groups of trees, and I first saw this technique used some 50(!) years ago at the Brooklyn Botanic Garden where an entire grove of conifers grew on a slightly dished stone slab the size of a table. My own ambitions, however, were on a smaller scale.

My intention was to create the effect of a slab of rock while providing enough room for plants with more extensive root systems than bonsai. To that end, I created very shallow troughs - with walls only about 1" high - and carved back the lower edges of the trough so that it appeared to be floating above the surface on which it sat. Happily, this technique enabled me to increase the depth of the trough while retaining the illusion of thinness. Depth to the rim averaged less than 3", but with mounding, an effective root depth of almost 6" could be achieved.



*Classic bonsai forest*



*Trough with semps*

These shallow troughs have been used to grow semps and other succulents, cacti, and mosses, and would be suitable for fairy gardens. Mounded, they can also support bonsai, woodland plants (especially the shallow-rooted ones that grow in the active layer above pine duff), and a surprising number of rock garden plants, especially when planted among real or artificial rocks that allow pockets of gritty soil to be raised up even higher to keep the crowns dry.



*Trough with semps and faux limestone rocks*

So many articles and videos are available online detailing the recipes and techniques for making hypertufa that it's only necessary for me to describe here how mine differ. Any concrete consists of a cement binder and some form(s) of aggregate. Hypertufa is a kind of concrete in which the aggregate consists of perlite and/or vermiculite and peat moss in place of the heavy sand and gravel found in commercial concrete. Some recipes also call for synthetic reinforcing fibers and/or liquid acrylic for added strength.

Most recipes call for the volume of cement and aggregate to be in the proportion of 1:3, for example, 1 part cement to 1.5 parts perlite and 1.5 parts peat, or 1 part cement to 1 part perlite and 2 parts peat. Vermiculite can be substituted for perlite.

I made my first few pieces using 1 part cement, 1 part perlite, and 2 parts vermiculite. After I shaped my first pieces by scraping with clay-sculpting tools, I added the fine grit I removed to subsequent batches of my concrete mix as part of the aggregate so that my recipe became 1 part cement, 1 part grit, and 2 parts vermiculite.

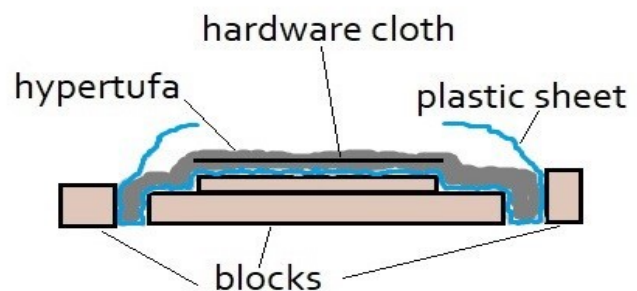
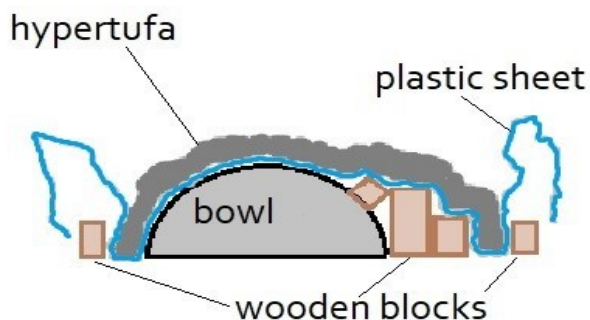
As I mentioned earlier, because I omit peat moss from my recipe, the quickmix cures enough to be gently handled and worked in only 8-12 hours in contrast to 3-4 days for hypertufa. I use a fine grade of vermiculite as my main aggregate as it is virtually invisible in the finished product, although it results in a heavier mix than the coarse grade. The chunkier kind has reflective surfaces that I find distracting. Perlite is very white and obvious in quickmix, just as it is in hypertufa, so I only use it – with gray powder colorant – when I want to simulate granite. Again, a finer grade is less obtrusive.

Reinforcing fibers can be added to the mix to prevent cracking, and I use them in everything I make. Quickmix troughs and hollow rocks tend to have thinner walls than hypertufa troughs and rocks, so I feel the extra strength is a good idea. On the other hand, I haven't tried the liquid polymers that also add strength because they are – for me – prohibitively expensive.

If you want your creation to be something other than concrete-gray – and I strongly recommend it – there are basically 2 options: powdered colorants and acid-etch liquids. Powders are relatively cheap, easy to use, and are fine if you're going for a solid color, e.g., brown, tan, or black. They are mixed into the dry ingredients. For something more subtle you'll want to use acid colors. They are painted onto concrete that has cured for 4 weeks, at which point they best react chemically with the alkali in the material. Both types of colorant are available online, at box stores, and at masonry suppliers.

It's important to remember that all concrete mixes cure over time in a chemical reaction, as opposed to just drying, after you've done working on them. As a matter of fact, the longer the concrete is kept cool and moist as it cures the stronger it will be, so plenty of sheet plastic should always be used between the mold and the wet mix and brought up the sides and draped over the top to keep moisture in.

Again, I won't go into detail about working with quickmix: the numerous articles and videos online that teach techniques for working with hypertufa also apply to quickmix. Basically, you need to envision the shape you want to make, assemble objects to create the negative space in the item, cover it loosely in plastic, and glop on layers of quickmix until you've achieved the desired thickness.





Leave drainage holes in the bottom of the trough if desired. A sheet of wire grid (confusingly called hardware cloth) embedded in the floor of the trough can add strength and rigidity. Start with walls about 1-1/2" thick, keeping in mind that you'll be removing material when you shape and carve details later. Some areas – notably the rims and floors of troughs, which are structurally important – need to be thicker than the walls of hollow rocks, which are under little stress and can be as thin as 3/4 inch. But I feel that the plants will be more comfortable growing with “rock” around them, so I leave the walls of hollow rocks a bit thicker around the planting holes.

I used clay-sculpting tools, sometimes called ribbon tools, to do most of the shaping of my troughs and rocks. They are readily available at hobby stores and online. After curing for about 8 hours the concrete is what is called “green”, stable enough to handle but still relatively easy to carve, which consists simply of scraping away what you don't want. Much of the carving will be removing material from the underside and the floor of troughs and the inside of rocks, areas that will never be seen and where you can reduce as much bulk and weight as possible as long as you maintain structural integrity.



For the visible surfaces, you can carve facets and angles or curves and rounded edges depending on what kind of rock you're trying to simulate. I tend to make faux sandstone smooth and rounded, while I give other types of rocks points, edges, and layers to simulate fractured igneous or metamorphic stone. Planting holes should be excavated at this stage, ideally located in what would appear to be natural fissures in the rock.



*Faux rock with Primula*



*Planted trough with real limestone*

Trufa rock, of course, requires its own techniques. I used large rounded ribbon tools to rough-in the bulges and depressions common in tufa, then smaller tools to add divots and holes. Then, while the concrete was still green, I drilled a mind-numbing number of 1/8" and 1/16" holes through the rock wall. I drilled them so they had a downward slope into the interior so that water entering the holes would flow toward the root zone. Planting-holes in trufa are easy to locate as they could naturally occur anywhere over the surface.

After this initial shaping, all pieces were re-wrapped in plastic – moistened if necessary – and left for another 8-12 hours to cure, after which further work could be done. For troughs and non-porous rock this is usually done with small sculpting tools as you're only adding detail. Ridges, chisel marks, cracks, sharp edges, etc., can be added to make the objects more rocklike.

For trufa, much of the work is just beginning because it's time to add the convoluted contours for which tufa is known. I did this using a Dremel rotary tool with ball burr bits about 1/4" and 1/8" in diameter. At this point, the trufa has some variation in the hardness of its surface, so you can run the bit over the trufa, applying light pressure, and the bit will vary in how much it digs into the surface, resulting in myriad pits, divots, caves, knobs, and bumps. I used the 1/4" bit first, running it over the entire surface, then came back with the smaller bit and added more detail, especially around the larger holes that had been drilled earlier. Because these holes are perfectly round I disguised the more obvious ones by removing some material around them to make the outline irregular.





The objects should again be moistened, wrapped in plastic, and left for 2-4 weeks in a shady place to cure. While the quickmix will then be hard and no longer easy to work, files, rasps, sandpaper, and rotary tools can still be used to make some alterations if desired.

If you're using acid stain this is the time to apply it. The colors are dilute and subtle, and the concrete soaks them up. Applying them is like painting a watercolor, all soft edges and blended colors. I used them mostly on troughs and small rocks although I also used green extensively to give a mossy look to large rocks.



*Trough with  
Valeriana,  
Campanula,  
semps, faux rocks*

The last step before you can plant your creations involves tempering, or neutralizing, the excessive alkalinity in quickmix, just as you would with hypertufa, caused by its lime content. This usually involves leaching the lime out with water. You can allow the object to weather outside for a few months, provided you get enough rain, or soak it in a bucket for a week changing the water daily. I have added vinegar to the water to raise its acidity and have also submerged items in tannin-rich pools in my pine woods, but I have no empirical evidence that this helps.

The growing medium for hollow rocks will be whatever rock garden or bonsai mix you think is appropriate for the plants you're growing. Keep in mind that, because it is elevated inside the rock, the growing medium will drain more rapidly than if it were in a trough or pot, so you might want a more moisture-retentive mix than you would otherwise use.

To prepare for planting, put as much medium as you want in the trough, which forms the base on which the rock sits, keeping in mind that it will settle a bit. Next, turn the hollow rock upside down and fill with moistened medium, packing it in firmly. Then lay a sheet of cardboard over the bottom. Quickly turn the rock right-side-up and place on the base; then slide the cardboard out.

Inevitably, there will be some settling and compacting of the medium inside the rock over time,



leaving an empty space at the top. This shouldn't be a major issue, but if you've left a hole near the top of the rock you can use it to add more medium to fill the space. Making a slurry of the medium will allow it to be poured into the hole and spread out. After initial settling and refilling, the top hole can be used for planting.

*Planted trufa block*



It can be tricky to fit seedlings in the planting holes. A popular technique is to gather the damp roots together and wrap them loosely in a small amount of toilet paper, forming a cylinder. Place the seedling on a knife blade or tongue depressor (the way a pizza is put on a wooden peel to move it into and out of an oven) and insert it into the planting hole so that the roots are in the medium and the crown of the plant is near the surface of the trufa; then slide the seedling off its carrier. Use the carrier – or a straw, spoon, chopstick, or whatever you can find – to pack as much moist medium in the hole above the root ball as possible. It might be desirable to wedge a small stone in the hole to prevent the medium – or the plant – from falling out until the seedling becomes established. To sow seed directly into the trufa, sprinkle a few seeds onto a creased file card or similar, hold the card to a small hole or crevice you've made that pierces the trufa, and gently blow the seeds in.



*Antennaria aromatica*, *Lepidum osteri*, *Draba fladzinensis*

The same techniques for planting and sowing trufa rocks hold true for working with non-porous rocks, those intended to look like solid rocks but with cracks or holes in which plants are growing. It's a bit more difficult to make large planting holes look natural in solid rocks. Sometimes you just have to rely on the plants' foliage to obscure the holes. Smaller holes to seed into can be joined to form a seam or crevice, and to this end it can help to carve layers in your rock to simulate strata that have weathered to leave openings in which seeds have taken hold.



*Faux sandstone with Primula*



*Faux rock*

One thing you might want to avoid – depending on your taste – is the tendency when carving a highly textured “rock” to turn it into a miniature “mountain.” You can get lost in carving detail into the concrete and then step back to look at what you've done and find it looks less like a stratified rock and more like a landscape feature for a train set. Fortunately, each creation is a learning experience, and you'll find that your rocks and troughs will improve with practice.



*Mini-mountain*

I kept no record of the objects I made in this experiment, but I estimate there were about 30 shallow troughs, 20 large hollow rocks, and 20 smaller ones. As far as I know, after 10 years 3 troughs have failed for unknown reasons, the concrete just crumbling. All other pieces remain sound. All pieces were made with the same materials using the same recipe and techniques, and all were kept outdoors year round for at least 4 years, most for 10. I have no explanation for the failures, but I have read anecdotal reports of such crumbling suddenly occurring in hypertufa troughs that had successfully overwintered unprotected for years, so the problem is apparently not confined to my recipe.

### NARGS-New England Chapter

Our Chapter meets 6 times a year (February, March, April, September, October and November), publishes a newsletter in email format, and organizes garden tours in May and June.

Local Chapters: There are thirty-eight NARGS affiliated chapters active in North America. Chapter events include lectures, an email newsletter, garden visits, field trips, demonstrations, and plant sales. These friendly gatherings provide a wealth of information; offer a source for unusual plants, plus the opportunity to be inspired by other gardeners in your region.

Chair: Vivien Bouffard

Chair-elect : Estelle James

Secretary: Rosemary Monahan

Treasurer: Ernie Flippo