ADIRONDACK CHAPTER
North American Rock Garden Society

Green Dragon Tales

Visit our blog: acnargs.blogspot.com March 2023

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MARCH 18: FLORA OF THE TURKISH SILK ROAD

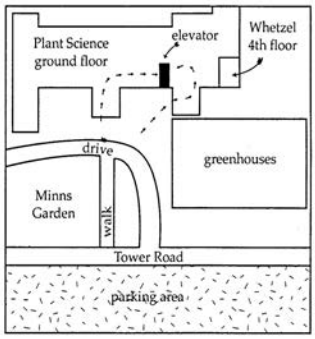
Terry Humphries, Program Chair

Join us at 1:00 p.m. on March 18th in the Whetzel Room (404 Plant Science Building, 236 Tower Rd, Cornell University). Optional bring-your-own lunch starting at Noon. Drinks provided. Goodies always welcome for sharing.

And let's not forget our tradition of bag lunch starting at noon for those who wish this extra time to socialize.

Turkey is a country of rich physical and ancient cultural diversity straddling Europe and Asia. Our speakers, Bella Seiden and Barbara Cooper's trip to Turkey in the spring of 2019 was an adventure with many surprises and much beauty. As they travelled along parts of the ancient Silk Road they saw mountains, volcanoes, steppe, beautiful rich valleys, rivers and lakes. Each of these areas is home to incredible flora, much of it endemic, and fascinating cultural sites. Their presentation will offer some of the highlights of this trip.

Barbara Cooper and Bella Seiden have been gardening together in Toronto for more than 25 years. They have a plant collector's garden in an urban setting, where they have constructed a tufa garden, crevice and rock gardens as well as perennial beds. Over the years they have developed an interest in seeing plants in their natural habitat and have traveled several times to South America, South Africa, and Turkey. They are members of the Ontario Rock Garden and Hardy Plant Society where they are responsible for the Speaker's Program.



****NOTE: Our meetings are back at Whetzel Room,
Room 404 Plant Sciences Building
236 Tower Road, Cornell University! ****

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The west wing of the Plant Sciences Building has been shut down for renovations. But those won't start until next year sometime. So other than having those hallways walled off, everything should look pretty much as it did last time you were here. Remember the elevator to the 4th floor and then exit right down the long hallway. You will be facing the Whetzel Room.

Just a reminder, we ask all ACNARGS attendees to be fully vaccinated. Additionally, we will be following CDC, NYS, and Cornell covid protocol – here is Cornell's mask policy **https://covid.cornell.edu/prevention/face-coverings/**. Please do not attend if you are not feeling well.

FROM THE CHAIR

John Gilrein, Chair

It's March first, and now it's that season when winter and spring are going to be wrestling back and forth. I've had winter aconites blooming now for a few weeks, possibly the earliest they have ever started blooming here, and they even beat the spring cyclamen, *Cyclamen coum,* for the first flowers of spring. I'm not counting the Christmas roses, which began blooming before the new year. With luck, we'll see more of the sun and get some good early spring gardening days. I've just returned from a visit to Yellowstone and Montana this week. Those of you who know me won't be surprised

that I even found some ferns in Yellowstone (small dry ones growing in rocks), even though the park was deep in the icy grip of winter.

For our upcoming activities March, April, and May, everything is on schedule for the 3rd Saturday of the month, with meetings at Whetzel in March and April, and our chapter plant sale in May (May 20 at Myer's Park, Lansing). There was some momentum from Cooperative Extension (CCE) to hold the May Garden Fair at Ithaca High School, like in the pre-COVID years. We were planning on participating in this community plant sale, but CCE is not able to hold it there. It's our understanding that the downsized version of the Garden Fair will be happening at the Ithaca Farmer's Market on a Friday, but if that is the case it has not as been communicated to us. Our Chapter decided to move ahead and hold our own plant sale in May, just as we've done the last few years. It's always an enjoyable event, and simpler than participating in the larger (and longer) Garden Fair event; the downside is that we don't get community exposure or attract new members.

Frost branches at Canary Spring, Yellowstone National Park

Eranthis hyemalis, winter aconite, blooming in February

One bit of good news is that the Stonecrop Gardens spring plant sale is back on (Saturday April 29) after not being held the last few years. For those of you who don't know Stonecrop, it's a former home of Frank Cabot in Cold Spring, Putnam County, NY. Frank Cabot was a garden persona of great renown, being the owner of Au Quatre Vents in La Malbaie, Quebec, and a founder of the Garden Conservancy back in 1989. Stonecrop is now a public garden on a high spot (1000' which is pretty high for downstate NY) in the Hudson highlands. The garden at Stonecrop includes a spectacular woodland garden (which is always in magnificent bloom at the end of April), a rock garden, troughs, alpine houses and a conservatory – all of which will likely be in bloom as well. The plant sale includes Stonecrop plants and other vendors such as Jay's (conifers), Broken Arrow, John Lonsdale, Garden Visions, and several others [and not just rock garden plants. Admission is $5 for the sale and the garden. [Editor's Note: If you choose to go at another time, Stonecrop is open to the public on limited days starting April. Visit their website for more info: https://www.stonecrop.org/).

If you are thinking about going to Stonecrop, here are some other attractions that could be included in this trip: Catskill Native Nursery (native plants), Samsonville, Ulster County; Innisfree (public garden), Millbrook, Dutchess County; Brunel Sculpture Garden, Boiceville, Ulster County; Oliver Nursery (alpines, perennials, troughs), Fairfield, CT. Stonecrop is also very close to Fahnestock State Park.

Hope to see you this spring at our various scheduled events!!

MEMBERSHIP

Mary Stauble, Membership Coordinator

If you have not renewed for 2023, you should do it now so you'll be eligible for our many membership benefits. You can renew at the March meeting or by mail. Your new or renewed membership will allow you to purchase the March Plant-of-the-Month, which we sell at a discounted price. The renewal form is at http://www.acnargs.org/join.pdf. Your membership status is reported to you in the email with the newsletter link. Contact Mary Stauble at mes2@cornell.edu if you have any questions.

PLANT OF THE MONTH: GENTIANA ACAULIS

Marlene Kobre, POM Coordinator
Photos courtesy of Edelweiss Perennials

G. acaulis 'Corbariensis'

The genus Gentiana is indeed large, with over 400 different species that display great diversity in their geographic distribution, size, growth habit, bloom time, and flower color. The species acaulis, which means "short-stemmed," belongs to the alpine section that is so highly favored by rock gardeners. And no wonder, given the heart stopping beauty of their intense blue trumpet-shaped flowers, often with speckled, lime green throats. Lincoln Foster and Reginald Farrer agreed that the Gentiana genus, and especially the alpine section, offers the rock gardener more glory than any other. But Farrer's daunting description of the cultivation requirements—beginning with the importance of preparing the bed to a depth of 3 feet and emphasizing their frustrating tendency to withhold their flowers for no clear reason—portrays them as difficult to grow.

In welcome contrast to Farrer, Urs Baltensperger, the owner of Edelweiss Nursery which is the source of our POM selections, reassures us that most Gentians, especially the Trumpets, are fairly easy to grow in average, humus-rich, well-drained garden soil. He also questions the traditional wisdom that they require regular watering, reporting that he even finds them to be drought tolerant once established. He does advise growing them in the garden since they do seem to resent pot culture unless it includes lots of garden soil in the growing medium.

Gentiana acaulis Hybrid 'Undulatifolia

We are offering two hybrids of the acaulis species, Gentiana acaulis Hybrid 'Corbariensis' and Hybrid 'Undulatifolia,' only because the nursery inventory could not provide

25 plants of a single hybrid selection. Otherwise they are very similar in appearance and cultivation.

Common Names: Trumpet Gentian, Small-stemmed Gentian, Spring Gentian

Hardiness Zone: 3. Endemic to the mountain regions of Western and Southern Europe.

Bloom Time: April, May. Some repeat bloom is possible.

Foliage: shiny oval evergreen leaves form neat ground hugging tufts or rosettes.

Flowers: 3" high x 15"-20" spread.

Soil: spongy, humus-rich, well-drained but never dry. pH neutral-acid (though they will tolerate some lime, unlike many Asian forms, which are said to be "lime-hating."

Light: Full sun, light shade in hotter climates. Urs notes that in Oregon, where summer temperatures can reach 100 F, his do fine in full sun. In our garden the Gentians receive a half day of mostly afternoon sun, in which they seem perfectly happy.

Water: Some disagreement here, as between Farrer, admonishing the need for constant moisture (but not boggy conditions), and Baltensperger, who says that once established they can tolerate both heat and dry conditions.

Propagation: Though it is said Gentians have a. long tap root that resents being disturbed, they can be divided in early spring by carefully lifting clumps with the crowns and roots, which you can then then gently tease apart. Transplant them quickly and water thoroughly.

We have found our *Gentian acaulis* to be accommodating and, when in bloom, awe-inspiring. I hope they perform as well for you.

How to Have the Earliest Blooms on the Block

It is more important to have the first bloom on your block than the first tomato. The first outdoor bloom is a potent morale booster, telling you that the back of winter has been broken. We have such a long winter--by the time it ends we are just hanging on by a thread. The sooner we have some flowers blooming, the sooner our spring fever eases. However, to have the very first flower blooming in your neighborhood is not a matter left to chance. You must employ your powers of observation and your plant hunting skills to make this happen. You need to know what to plant and where to plant it. In USDA hardiness zones 3 and 4, very early blooming spring bulbs are the psychological weapon of choice.

Where to Plant

The end of winter is the best time to decide where to plant your earliest spring bulbs. Look around--no, better yet–grab your camera, and record the places in your yard where the snow melts first. These areas are your warmest microclimates. They include such places as: over the septic tank, up against a house wall, the south side of trees and shrubs, a corner of the house that traps heat, and the south side of paved areas.
Your images won't look like much. Rename your images, or else you will look at them in July and wonder, "What was I thinking? Why did I take a bunch of photos of dirty, tired snow?" Put them in a folder labeled "Plant Bulbs Here" and make a note in your calendar to order them in June, when there are discounts for early online orders. Many of these locations are not what you would think of as typical garden spots. We're not going for tradition—we're going for results. Most of the earliest blooming plants are quite small and go dormant by summer, so they won't interfere with lawn mowing or house maintenance.

What to Plant

Many gardeners are unaware of how many flowers bloom during mud season, that nebulous period which fluctuates between winter one day and spring the next. That's partly because some of them are hard to find—a list of sources has been provided. All of the following plants are hardy to USDA Zone 3.

1. Snowdrops

Snowdrops are tied with winter aconites for the prize of very-first-bloom. Snowdrops usually emerge from the ground--millimeter by millimeter--well before the aconites do, but won't actually open their flowers until the temperature reaches 50°F. Snowdrops have three small inner petals, white marked with green, that form an inverted cup. Hanging over this cup are three long petals, also white. When they first emerge from the ground, the flower buds point straight up like a rocket preparing for takeoff. Then the bud drops, pointing downward. Finally, the flower opens wide, hanging like a miniature ceiling fan, when it's warm enough. The first snowdrops I ever got were given to me by a gardening friend. She had found them growing "in the wild," presumably where a house had once stood. I later learned they were the common snowdrop, *Galanthus nivalis*. In my damp, somewhat shady location, they made huge colonies in late winter, the perfect excuse to leave my warm home to check on their progress and pick a handful for a tiny bouquet. I was content with these sweet little things until I found out there were other snowdrops that bloomed earlier. That got me planting 'S. Arnott,' a hybrid snowdrop that is not only earlier but bigger–and fragrant, too. The giant snowdrop, *Galanthus elwesii*, blooms earlier than both of these. It's a bit taller than the common snowdrop and prefers slightly drier soil.

2. Winter aconites

Winter aconites (*Eranthis* spp.) are jack rabbits compared to snowdrops, emerging and blooming in the space of twenty-four hours when conditions are right. Shorter than snowdrops, with flowers that look like buttercups and a ruff of leaves like a Renaissance collar, winter aconites are little spots of sunshine against the dark earth. They are tricky to get established because they die if they dry out, and they often do so in bulb warehouses. Try soaking them in damp coir for twenty-four hours and then plant immediately. Better yet, get some from a friend's established patch, digging and replanting them while they're still in active growth.

3. Spring snowflakes

Spring snowflakes (*Leucojum vernum*) could almost be mistaken for huge snowdrops. The downward-facing round white bells, on stems 6 to 8 inches tall, are about the size of a nickel, each petal tip dipped in green. Unlike many other bulbs, they enjoy dampish soil. When dug and cured like most other fall-planted bulbs, it tends to rot, so it's not sold by bulb merchants who get their stock from overseas. This is where your plant-hunting skills are needed. If you're really lucky, you'll have a friend who will share some of her plants with you. Otherwise keep on the lookout for a U.S.-based seller and order immediately, before they're sold out. Don't confuse this plant with the widely-available summer snowflake (*Leucojum aestivum*), which is a fine plant, but blooms later in spring.

4. Bulbocodium

Bulbocodium vernum has the lavender-pink color of a fall-blooming colchicum, and some botanists call it *Colchicum vernum*. It's quite short, with six strappy petals that contrast beautifully with *Cyclamen coum*. Try planting them as a carpet around the base of February daphne, whose flowers are the same color as the bulbocodium.

5. *Crocus korolkowii*

To look at American bulb catalogs, you'd think there were only two kinds of crocuses–big ones (Dutch crocuses) and little ones (species crocuses). Turns out there's so many different kinds of crocuses, an entire book was written about them. *Crocus korolkowii* blooms earlier than the species crocuses that are usually for sale, and deserves a spot where you can see it from the house or by a frequently-traveled path. What's not to like about crocuses? Deer and rodents like to eat them. What to do? 1) Surround them with grit as you plant them. This will keep the corms from being eaten but won't help with above-ground munching. 2) Spray them with Plantskydd before planting. They may need another application as they emerge. 3)Plant in really hard-packed clay soil that voles can't be bothered digging in. 4) Give up on crocuses—most of the other bulbs mentioned here are rodent-resistant.

6. Glory-of-the snow

Glory-of-the-snow produces blue-lavender flowers along a 6" stem. *Chionodoxa forbesii* is the most common; 'Blue Giant' is taller and a tad deeper blue, but I have given my heart to 'Blue Mound', which is an even deeper color and more floriferous. There are also white, pink, and violet forms of *C. forbesii* (sometimes called *C. luciliae*). *Chionodoxa sardensis* is cobalt blue and lacks the white eye of the others.

7. Striped squill

Striped squills (*Puschkinia libanotica*) have stems loaded with white flowers that have a pale blue stripe down each petal. A good plant to grow along a walk where you can admire that stripe up close. I have indulged in 'Aragat's Gem' and 'Sky Vision' from Odyssey Bulbs, which have more flowers per stem and better color.

8. "Christmas" rose

If you grew the Christmas rose (*Helleborus niger)* in Great Britain, it would bloom in December in accordance with its common name. Sometimes I get lucky, and see a flower in late November before the plant gets buried in snow. Undeterred, this hellebore opens its flowers after the snow has melted, in late March or early April. They are white and

somewhat resemble a single rose. Hybrids with *H. niger* in their parentage (such as the Helleborus Gold Collection) also bloom soon after snowmelt.

Desperate times call for desperate measures. And who is more desperate than the cold climate gardener who's been inundated with social media images of spring flowers blooming in warmer climates? The sooner you have flowers in your own garden—even just one—the better you will feel about the lingering piles of shoveled snow and your brown, sodden lawn. Just remember that even when you get location and varieties right, weather still plays a big part in when you actually get that first bloom. Keep hunting for early bloomers and experimenting with planting sites. Next year you'll have your earliest bloom yet!

Sources

- Brent and Becky's Bulbs - http://www.brentandbeckysbulbs.com/ Wide selection of common bulbs
- In the past, Daffodils and More - http://www.daffodilsandmore.com/ - sold spring snowflakes.
- John Lonsdale of Edgewood Gardens and Carolyn Walker of Carolyn's Shade Garden have sold them more recently.
- John Scheepers - https://www.johnscheepers.com/ Wide selection of common bulbs
- Leafari - https://www.leafari.com/ Wide selection of common bulbs
- McClure and Zimmerman - https://www.mzbulb.com/ Wide selection of common bulbs
- Odyssey Bulbs - http://odysseybulbs.com/ *Crocus korolkowii* and 'Blue Mound' *chionodoxa* plus lots of other bulbs you've never heard of.

Don't plant these!

Two commonly offered hardy bulbs often give gardeners a lot of trouble and should be avoided. Siberian squill (*Scilla siberica*) produces lovely blue flowers at the same time as Glory-of-the-snow. It propagates itself by seed and by multiplying bulbs. Although not on the invasives list, Minnesota and Wisconsin gardeners report finding it escaping the garden into wild areas and crowding out native plants. Visit https://www.minnesotawildflowers.info/flower/siberian-squill to learn more. Star-of-Bethelem (*Ornithogalum umbellatum* and *O. nutans*) has white starry flowers and crocus-like leaves. While not currently a problem in Minnesota, out-of-state readers should research how it behaves in your area before planting it, as Star-of-Bethlehem self-sows and multiplies aggressively in many areas. More information at https://www.invasive.org/alien/pubs/midatlantic/ornu-orum.htm

Not Exactly Garden News But perhaps of Interest

Got unusable electronics? Here's a chance to recycle them through Cornell's Beyond Waste Program at no charge on Wednesdays during the month of March. Details below.

Gardeners have a reputation for reusing and recycling all kinds of stuff so you may find this to be good news! Join Cornell's *Beyond Waste* campaign by recycling your home and office electronic waste throughout the month of March. Bring your unusable electronics to the Cornell Recycle Center (R5) (251 Solidago Rd, near the old Cornell apple orchards) on Wednesdays starting March 1st between 8am-3pm to dispose of

them safely, sustainably, and for free. See what items are accepted.

Looking to rehome working electronics? Check out these campus and community reuse programs. You can also recycle electronics securely throughout the year by visiting specialized drop spots on campus [Cornell campus that is].

More info especially what's accepted and not accepted here:
https://events.cornell.edu/event/electronics_recycling

Make a Hypertufa Trough

John Gilrein

Making a hypertufa trough is a good activity to do now before gardening season starts up and we can't resist being outside. I'll include some tips for trough making and some pitfalls to make the process clearer. I just made another trough a few weeks ago. A great reference for all things related to troughs is Creating and Planting GARDEN TROUGHS by Joyce Fingerut and Rex Murfitt. *[Editor's note: There are several online sources for this book]*. This book explains a lot more about trough making than just simple trough making directions one can find on the internet.

The basic process to make concrete is to mix Portland cement with aggregate (sand and gravel) with water. Hypertufa is a special type of concrete made using lighter aggregate materials (normally Perlite or vermiculite, and peat moss. Concrete makes very durable troughs, but they may look like concrete and are very heavy. Hypertufa is much lighter than concrete, easier to distress to simulate aging, and more likely to "age" faster by growing moss on the surface.

Trough Making Materials

1. Portland cement is the glue that creates concrete. In essence, making concrete is like creating a synthetic limestone. Don't confuse cement with concrete; concrete is a mixture that includes cement and aggregate. Portland cement comes in 94 lb. or 47 lb. bags. It's available from the big box hardware stores and masonry supply stores. You'll want a product labeled either just Portland cement, or Portland cement Type I; this is normally what's available. Staff in the big box stores will normally assist loading heavy products into your vehicle. Any product labeled concrete (for example Sakrete) will not be effective for trough building (it is already pre-mixed with aggregate), that's meant for other purposes.

   Portland cement is hygroscopic, i.e. very susceptible to absorbing water (including humidity). Store it dry, and if storing for more than a week or two, store in a closed, sealed container (a covered plastic tub works). If your bagged cement is lumpy and the lumps don't easily break in your fingers into fine powder, it has absorbed moisture and is no longer usable, so discard it.

2. Aggregates Perlite and vermiculite: Both of these are mineral products, weigh almost nothing, and are the main ingredient used to reduce the final weight of a trough. I generally prefer vermiculite, but either is a fine aggregate for your trough. If you don't like how the white perlite looks in a finished trough, the trough can be tinted/dyed with cement coloring agents. Vermiculite comes in

multiple sizes. *[Editor's note: to obtain these materials in sufficient quantities, they may have to be special ordered through your local garden center]*

3. Alternate aggregates: Peat moss and coir: either product works in the aggregate mix for making hypertufa. Normally, peat moss would be sieved to remove sticks and any large pieces and to break up lumps. However, the sticks and large pieces could be left in the hypertufa, making the trough more rustic, but possibly at the expense of durability. Coir is sold loose and bagged, or in bricks, which need to be hydrated to break apart into the loose fibers. If using a coir brick, wet the brick and break it up to loosen it at least a day prior to creating your trough. The organic component of the mix helps make the hypertufa "age" more quickly and look more natural.

   Other aggregates: I will often add are sand replacing an equal volume of the vermiculite. Sand will make the trough heavier than one of the lightweight aggregates. Any stone-like material could also be used for aggregate, e.g. chicken grit, shale flakes, fine gravel Why use a different aggregate ?– to create a different look with the trough.

Additional optional materials

4. Acrylic bonding agent: This is a liquid product that makes the trough stronger and more waterproof. It's available from big box hardware stores, Agway, and masonry supply stores. I have made successful troughs with it and without it.

5. Synthetic reinforcing fibers: These are plastic fibers used to help reduce shrinkage and cracking of concrete. May be hard to find locally, but easily available by mail order and inexpensive (around $8 for enough fibers for a cubic yard of concrete).

6. Coloring agents: Liquid and powder agents are available; either could be added to the dry ingredients (powder) or the liquid ingredients (liquid). I successfully tinted a trough made last year just by painting the liquid coloring agent onto the outside of a trough. I wasn't sure if the color would last or wash off, but the color has persisted well so far. I'd suggest a somewhat natural looking color. One could even paint bands of 2 different colors on the outside of a trough to imitate a banded stone. Big box hardware stores and Agway carry coloring agents.

7. Water, the final ingredient. Any tap water, well water, or not overly acidic water is fine; don't use sea water. It's OK to use either cold tap water or warm water, as long as it's not too hot to touch.

Selecting a Form for your Trough

Any sturdy container works. Some good potential forms are plastic dishpans or kitty litter pans, stainless steel bowls, wooden boxes, and forms made with expanded polystyrene foam boards. Heavy cardboard can work if the box is not too big, and one could double the thickness of the cardboard (or triple) for added rigidity. If you want to make a trough on the outside of a form, you can even use a pile of sand, a flowerpot, or a bowl. Hypertufa will release from a surface that's plastic (including the polystyrene boards); other surfaces need to be lined with plastic film (like a sturdy garbage bag).

Work Surface

You'll want to work on a surface that can get wet and/or dirty, like a plastic sheet or a sturdy board. If you work on a board, you will be able to move the trough before it's cured and structurally stable.

Curing

Hypertufa will need to cure ([Editor's note: Dry is not the proper term, but rather a chemical process]. Curing occurs best if your hypertufa remains moist, so the finished trough should be covered with plastic and placed in a oool, chady place.

Safety Precautions

Portland cement is a skin and eye irritant. Wear safety goggles and a dust mask, and gloves when working with cement and the aggregates; avoid skin contact with this product. Rinse any accidental contact with cement, especially if it has been moistened, with water. Sturdy gloves like dishwashing gloves are often recommended. I like to use Thickster latex disposable gloves, which are sturdier than normal disposable gloves and allow more feel for the hypertufa. (Don't use Thicksters if you use a sharp aggregate in your mix.) The other ingredients, especially the Perlite and vermiculite, are also potentially irritating if inhaled. Inhalation becomes much less of an issue when the hypertufa mix is completed moistened.

Building the trough

Measure the main ingredients by volume. I find a one quart plastic yogurt container works well. The standard ratio is 3 parts cement, 4 parts peat, and 5 parts Perlite, OR 2 parts cement, 3 parts peat moss, and 3 parts Perlite. You may use some synthetic reinforcing fibers, a small handful is enough. The fibers need to be pulled apart, which is tedious. A small package of fibers may be enough for a 94 pound bag of cement, which is much more than you'll use in your trough. A recommended proportion of liquid acrylic agent is 1 part to 3 parts water; you can vary the proportion some, up to 50% acrylic agent. The dry ingredients, EXCEPT the Portland cement, can be mixed ahead of time.

When you're ready to start construction, find a comfortable place comfortable, whether that's outside, your basement, garage, or wherever. Plan to have enough time to build the trough in one session. Your trough will cure (the process of the cement absorbing and reacting to the water, hardening, and creating the hypertufa) best around room temperature, 68 degrees F./20 degrees C. I'd suggest staying in the 55-75 degree F. temperature range for the curing process for a week or so.

Mixing the ingredients is easiest is a wide container, rather than a deep one. I use a large stainless steel bowl or a large plastic tub for mixing. You can mix with gloved hands (my preference), or a tool like a hoe or spade. I like to mix the dry ingredients well, except for the cement. Distribute the fibers within your mix, then add the cement.

It's challenging to know how much of the mix to make, and good to be aware that you'll be compacting the moistened mix as you form your trough. I find I often need more of the hypertufa mix than I expected. It's better to err on the "too much" than "too little" – easier said than done.

Mix the 2 liquid ingredients together before adding them to the hypertufa mix. Start conservatively to avoid overwetting the mix; you can always add more moisture.

Alternately, reserve some of the dry hypertufa mix, which you can then added if needed. For the strongest trough, you want to add just enough water to moisten the cement and not have excess water. Mix the ingredients thoroughly, so there are no dry spots or wet spots.

The test for adequate hydration is to just make a ball of the hypertufa mix and compress it; it should stay together in a ball and not be leaking water. If it's too dry, that means you should add more liquid. If it's too wet and leaks water, add more of the dry ingredients. Aoid the common suggestion to "make the mix to resemble 'sloppy cottage cheese" as this makes the mix too wet, results in a weaker, less durable trough, and will be difficult to work when trying to build the sides of your trough.

Now that your mix is done, start packing the mix into the trough form starting at the bottom and building up to the opening (or on the outside of your form), packing the mix firmly and at least one inch thick (up to two inches for a large trough). The corners of a square/rectangular trough should be a little thicker to make up for scraping the outside corners during finishing. You should work fairly quickly [since the concrete will start to set] – although short breaks (like a trip to the bathroom),\ - is OI.

As you pack the mix further up the form/mold, it's OK to add or subtract some of the mix from the parts you've compacted. It's also fine if the trough thickness is a little uneven, although I prefer the walls and bottom to be roughly even thickness. A little unevenness contributes to the hand carved look of the finished product.

You should make a drainage hole (or holes) in the bottom of the trough, which will be best if it's centered. I don't use a form to create a drainage hole in the bottom, but that's one option. When the building is mostly finished, it doesn't hurt to check and adjust the thickness of all the surfaces, adjust as necessary, and make sure the mix is firmly packed. I make sure the top and bottom surfaces are fairly even.

Lastly, when you are done, cover the trough with plastic and allow to cure in a place where the temperature will not go below 50 degrees in the next week.

Clean-up

Clean-up is easy, with your gloves still on rinse the mixing container and any tools, ideally before the mix hardes. Any excess mix can be used to make a hypertufa "rock" or other creation or discarded. The cement is alkaline, so you won't want to dump the rinse water onto your rhododendrons or blueberries, but your lawn won't object to the dose of limey water. Clean-up is much more difficult if you let the mix harden. It can be removed (but not easily) with scraping (bigger pieces) or white vinegar (which of course neutralizes the alkalinity).

Curing

The first 48 hours of curing is the most critical part. Before your trough has cured, it won't be structurally stable, so do nothing that will compromise that, like picking up the trough by its side, or moving the trough if it allows the form to flex. The trough will go from being putty like, to hard enough to scratch with a fingernail, to needing a metal tool to scratch it, to being hard to scratch. Keep the outside of the trough damp in the first few days (a hand mister works well for this).

Curing is an exothermic process (gives off heat, though that may not be noticeable with a small trough). During the curing process, the cement reacts with the available water and hardens the hypertufa into the hard finished product. Curing is faster in warmer temperatures (over 80 degrees F. is contraindicated) and slower in colder ones (which is much more desirable). Note: don't cure the trough in the sun.

When do you remove the trough from the form? Use your common sense based on the size of the trough, the temperature of the curing room, with testing scratchability; most troughs will have cured enough in 2 days to be removed from the form and the finishing process begin. If the trough seems too soft after 2 days, give it more time to cure.

Sculpting?

When the trough has sufficiently cured, it is time for putting any aesthetic touches to your trough. This is best done before 100% of the curing is done. Be careful that you don't stress the trough while it is still gaining structural stability. You might want to remove the crisp, squared edges: both the inside and outside top edge, the bottom edge, and the four corners. You can do this by scraping the trough with an old butter knife, an old trowel, asparagus knife, etc. I usually use an old square nail.

There are a few different styles when it comes to giving your trough a more finished, stone-like look. You can go for a smooth polished finish or a rustic one. For a smooth finish, you can scrape the outside surfaces to smooth them. For a rustic finish, two options are scratching, and chiseling (which I have yet to try, but plan to at some point).

I like to scratch the sides of the trough to imitate roughly horizontal strata of a sedimentary rock using that nail. I make some scratches deeper and some shallower, all roughly parallel. I'll go with defects in the forming process and deviate a little from perfectly parallel scratches, which enhances the rustic effect. For the last part of the finishing, I scratch the surface of the trough with a stiff wire brush, which creates fine scratches on the surface.

For a chiseling effect, remove small pieces of the outside surface of the trough to simulate carving with a chisel. You may want to rinse off the trough to decide whether enough finishing modification is done, or do some more. After finishing, recover the trough with plastic, and keep it moist. It will continue to cure and harden.

Final curing

Assuming a full week of curing done at normal temperatures, the trough should be stable and can even finish curing under water (at this point the water won't weaken the structure). Keep the trough covered and moist for a few weeks to a month, ideally approximatating room temperature. After a month the trough can be left outside and can stand freezing weather.

Before planting, give the trough a thorough rinse a few times with water, or let nature do that outside. If you're planting lime hating plants, you can rinse the inside of the trough with vinegar. For long term outdoor use, make sure the trough will drain over the winter so it doesn't fill up with water and crack.

NARGS & ACNARGS Upcoming 2023 Programs

NOTE: As of now, we are planning in-person meetings this spring. Plus we are back to meeting at Cornell in the Whetzel Room…at last!

March 18: Barbara Cooper and Bella Seiden, Flora of the Turkish Silk Road

April 15: Matt Matthus, highlights from the NARGS-sponsored trip to alpine China

April 29: Stonecrop Gardens annual plant sale. Visit Stonecrop.org

May 20: ACNARGS plant sale at Myers Park, Lansing. Details in the April newsletter.

June 8-11 2023: Rocks, Plants, Habitats, NARGS Annual General Meeting hosted by Nova Scotia Chapter in Truro, Nova Scotia. This should be an awesome meeting in an awesome location. Start planning now to attend. Registration to open in early February, 2023. Info https://nargs23.org/. Scroll down to watch the video – what a beautiful place!

August 26: Annual Member Only Plant Sale, Myers Park Pavillion. Note this is the 4th Saturday of the month.

September 28 (tentatively): Gerard van Buiton, NARGS Traveling Speaker from the Netherlands. Note this is the 4th Saturday of the month.

Calendar of Select Garden Events

For the latest information, visit the websites of these gardening organizations.

Cornell Cooperative Extension of Tompkins County. Online class information: ccetompkins.org

Finger Lakes Native Plant Society monthly meetings – a hybrid of in-person and zoom: https://flnps.org/ Recordings of past programs are available to view online.

Cornell Botanic Gardens: https://cornellbotanicgardens.org/explore/events/

Habitat Gardening in CNY, local Wild Ones Chapter: https://www.hgcny.org/ (there's a March 26th program coming up on zoom but you need to register)

Garden Conservancy Open Days includes Tompkins County on June 3 and July 15. https://www.gardenconservancy.org/

To have your garden event listed send all pertinent information to Carol Eichler carolithaca@gmail.com

2022 ACNARGS Board Members and Contacts

If you want to volunteer, we'd love to hear from you!

Chair: John Gilrein, basecamp@alum.syracuse.edu
Program Coordinator: Terry Humphries, terryehumphries@gmail.com
Program Committee Members: Would you like to help? Share your speaker suggestions!
Secretary: Currently rotating amongst "Responsible People"
Treasurer: Marlene Kobre
Plant Sales Chair: Carol Eichler carolithaca@gmail.com (temporary). We need someone to take on this twice-a-year responsibility!
Plant of the Month: Marlene Kobre, mkobre@ithaca.edu
Membership: Mary Stauble, mes2@cornell.edu
New Member Hospitality: Graham Egerton, Anne Redfern
Newsletter Editor: Open. Carol Eichler
Book Order Manager: New NARGS program to offer NARGS' members select books at deeply discounted prices. New Chapter position. Looking for a volunteer!
Webmaster, Program Tech: Craig Cramer, cdcramer@gmail.com

About Us – Adirondack Chapter NARGS

We are an all-volunteer organization and one of thirty-eight (at last count) NARGS affiliated chapters active in North America. Our annual Chapter activities include 6 program-speaker meetings, the Green Dragon newsletter, web and Facebook pages, garden visits, occasional overnight garden trips, hands-on workshops, two plant sales a year, and frequent plant giveaways. Our meetings are informal, friendly gatherings that provide a wealth of information and offer a source for unusual plants, plus the opportunity to be inspired by other gardeners. The public is always welcome. Chapter membership starts at $15 a year based on the calendar year. Membership includes these benefits: newsletter sent to you electronically (or option by mail for an extra fee), invitations to our garden day trips, opportunity to travel on our planned overnight garden trips, annual membership directory, and plant sale discounts and member only sales, including Plant-of-the-Month sales.

About NARGS National

NARGS National is our parent organization: We encourage you to join (online at www.nargs.org) for only $40 a year. Benefits include a seed exchange, a quarterly publication focused on rock gardening, and an online website featuring a wealth of information including current and archived of Quarterly's, recordings of past study days and more. NARGS National also holds its Annual Meeting in interesting places where attendees have the opportunity to visit gardens and take field trips, often to alpine areas, as well as hear talks by outstanding plants people from around the world. More recently, NARGS is offering botanical tours each year, both within the US and abroad.

Green Dragon Tales

Published eight times a year (Jan./Feb., March, April, May/June, July/Aug., Sept., Oct. Nov./Dec. Submit articles no later than the fourth Friday of the month preceding the monthly publication to Carol Eichler, carolithaca@gmail.com. Note: The next issue of *The Green Dragon* will be April 2023.