Friends of WCBG
WELLESLEY COLLEGE BOTANIC GARDENS

Spring Newsletter, 2019

WELLESLEY COLLEGE

Bones

The creation of a garden can be the lifelong endeavor of a single individual or a large-scale project involving many dozens of people. Global Flora, essentially a garden in a newly constructed building, has most definitely involved dozens: skilled construction professionals, architects, landscape architects, geologists, botanists and horticulturists. By February, we started to turn a corner as the project began to shift toward garden building rather than building building.

The idea that a garden has “bones” around which the plantings are established seems to date to the early 1900s. Architect Edwin Lutyens, in collaboration with legendary garden designer Gertrude Jekyll, created iconic English homes and landscapes, transforming how generations would design buildings and gardens. In 1908 Lutyens wrote of the need “for a garden scheme to have a back-bone, a central idea, beautifully phrased.” Since that time, the idea of ‘the bones of the garden’ has come into general usage and implies the infrastructure and hardscape but may also mean larger trees and shrubs.

The Global Flora conservatory will be a garden enclosed within a structure but the plantings will intersect with "the bones" just as an outside garden would. Large stones will be a feature, and outcrops and cliff faces will be constructed of western Massachusetts stone but also one particular and rare "stone" from the Gilboa Forest of New York.

The iconic deserts of the American southwest feature red rock, and this was a color we felt would look best in the Arid Biome, giving the feel of a parched landscape. We spent quite a bit of time tracking down a source of brownstone, the ubiquitous building material of New York City and Boston, which often has a reddish tinge. What many people don’t realize is that New England quarries supplied all the brownstone that built these metropolises.

Today, not a single brownstone quarry is still in operation so sourcing this stone took some leg-work. One tip brought me to an owner of an old quarry (“I sold all the stone I had last year”), who related that the sidewall of his quarry had the word ‘Death’ chiseled into it, a pre-OSHA warning to any new employees. Eventually I found Tom O’Brien in East Longmeadow who had accumulated an ample supply, hoping to one day construct a brownstone barn. He generously sold us a load to construct a rockscape for our Arid Biome. Just as we like plants with an educational story, our heavier bones have interesting tales to tell, part of the forgotten history of New England.

Setting the first bone in the Wet Biome.

For the Wet Biome, we had the luxury of working with an actual quarry, Ashfield Stone, of Shelburne Falls, MA. A selection of 27 boulders was made by the landscape architects, Todd Montgomery and Martha Eberle from Andropogon Associates, and on February 11th, the first of these was set into place in Global

Flora. It felt like a turning point in the construction, our first "bone." Some of these pieces weighed two tons and were nine feet long so maneuvering them into place relied on the considerable skills of the heavy machine operators of the Dow Co.

The final set of stones have botanical stories to tell, not of centuries past, but of plants that lived hundreds of millions of years ago. In the 1920s a water project for New York City was begun in Schoharie

Staging the Ashfield stone outside of Global Flora

County, southwest of Albany. It uncovered a set of fossils, an amazing find of the world earliest forest, from the Devonian period, some 380 million years ago. Construction crews found a forest of fossil tree stumps, and Wellesley acquired one of these sandstone cast trunks at some point. The fossilized trunk section is thought to be the genus *Eospermatopteris* belonging to the Cladoxylopsida class.

It has been a featured display in the Focus area of the Science Center for decades but will soon be part of Global Flora. Cladoxylopsids had a tree-fern like appearance but predate ferns and are intermediate between the earliest vascular plants (not tree-like) and ferns as we know them today. We plan to plant the oldest extant families of plants around this 400 million year old treasure. Remarkable fossils are still being pulled from this area of New York.

The smallest set of "bones", more a display than a feature, are some plant fossils my brother and I pulled from the downstream sedimentary rock outcrops below the dam in Holyoke, Massachusetts. These were identified by Columbia University paleontologist Paul Olsen as Pagiophyllum, with an age of 190-200 million years. This genus is no longer found but its plant family, the Araucariaceae, is still part of the world's flora, but found only in the southern hemisphere, far from New England. I have seen members of this family during connections to fill with water. It will be a long-anticipated treat to water exclusively with filtered rainwater.

With great student interest and demand for work-study jobs and internships, we are building our student work program in parallel with the new greenhouse. Annalise Michaelson '21 and Ava Mackay-Smith '20 are our first student Curation Assistants, learning the ropes of IrisBG (botanic gardens database) to help accession new plants into the Global Flora collection, under the guidance of Rob Nicholson and Jenn Yang. As many of the plants are propagated from unique material that Rob is gleaning from other botanic gardens and specialty collections, it is essential to keep track of their full identities and label them accordingly. And we are in the process of hiring a Post-Baccalaureate Fellow, a full-time, year-long position for a plant lover to continue building skills with hands-on horticultural work and monitoring in the most research- and teaching-intensive gardens, and to help mentor students. This Fellowship is funded by the Friends, yet another way that your support directly increases the opportunities the WCBG is able to provide. Thank you!!

Please note that while the Global Flora greenhouse will open to the campus community at Reunion in June, it will not open to the public until the adjacent Science Center construction is complete and parking is restored in the area. If you would like a tour in the meantime, please contact the Friends office and we will do our best to accommodate. I will be trading in my hard hat for my faculty hat next semester, and cannot wait to teach with Global Flora!

With best wishes for a wonderful spring renewal,

by Rob Nicholson
Botanical Collections Manager