

Public art as water pollution fighter

By Mary Newsom

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They look like enormous, twig-covered brown snakes, writhing through underbrush, over dead leaves, under bare trees.

Their creator, artist Daniel McCormick, calls them Watershed Sculptures. They exist in a realm where art, science, environmental protection, landscaping and storm water engineering collide. You can see them winding through a spot of woods on the Carolina Thread Trail as it runs through Freedom Park, beside Little Sugar Creek.

The idea is that art and science can work together, with nature as beneficiary. The sculptures are not "art for art's sake" - they have a down-to-earth function. They're designed to capture and filter polluted rainwater pouring off the rooftops, driveways and pavement along Sterling Road just uphill from the site. Otherwise, that runoff water would gush through a ditch and flow, pollution-laden, into Little Sugar Creek.

The California-based McCormick has spent the fall in Charlotte as a resident artist at the McColl Center for Visual Art. He's an environmental artist; he places works outdoors in natural settings. And he's working around the country to try to help communities get control of storm water pollution. (Not surprisingly, his college degree is in science and environmental design.)

This work was a collaboration among multiple groups: the Catawba Lands Conservancy and the Carolina Thread Trail, the Mecklenburg County Park and Recreation Department, the Charlotte Nature Museum, Queens University of Charlotte and a number of other volunteer groups.

Art as outdoor science class

The art is also functioning as an outdoor classroom for Reed Perkins, an associate professor of environmental science at Queens. He helped play matchmaker between McCormick and the Carolina Thread Trail. He's on the board of the Catawba Lands Conservancy, the nonprofit land trust administering the Thread Trail, a planned 15-county network of walking and biking trails linking the region.

Perkins' first-semester students helped with the installation and planting. He's enthusiastic about possibilities for later classes: measuring the efficiency of the storm water filtering, tracking the



Daniel McCormick, the environmental artist behind the works at Freedom Park.



Twig-covered tubes of brush and other natural materials are designed to slow and absorb rainwater runoff, protecting Little Sugar Creek from pollution.

decomposition, studying insects he expects the brush-filled tubes to attract: "It's like a buffet line in there for insects," he noted.

He estimates decomposition will take seven to 10 years. As students track it, he said, they'll learn that "science isn't just test tubes. It can be fun. It can be artistic. It's real."

Twigs and saplings play a role

As McCormick explained the work while we toured it last week, the mat covering the structure is coir, a sustainably produced and eco-friendly landscaping material made from coconut husks.

The twigs and branches that lace the exterior were culled from the site, as well as from the recyclable yard waste stacked on neighborhood streets.

Tree saplings are planted every few feet alongside the structure: willows, dogwood, mulberry, etc.

Inside the structure is brush - much of it cut from the site, although McCormick said he and his volunteers were careful not to include invasive species. Those invasive plants, many of them widely found in people's landscaping, include English ivy, some types of holly, wisteria, honeysuckle and ligustrum or privet. They're a huge problem in natural areas, as they overtake and crowd out native species, which in turn can hurt the wildlife that relies on those native species for food.

Part of the ecological benefit from McCormick's works is the clearing of those plants from his sites; the park department will maintain the site and continue to clean out the invasives.

Last week's Hurricane Ida rainfall was a good test of whether the three large tubes would serve their intended purpose. McCormick ventured out in the rain to observe. He made a few adjustments upon the advice of storm water engineers but mostly, he said, the rain puddled where he'd wanted it to puddle, soaking into the ground instead of rushing downhill to the creek.

Why groundwater matters

It's important, for pollution and water supply reasons, to let rain soak into the ground. Contaminants are filtered out. Also, a large proportion of the water in creeks in the Piedmont seeps in through the ground. When rainwater pours in and then speeds downstream, the groundwater process can't work its magic.

The Watershed Sculpture obviously isn't the same art genre as a bust by Bernini or a marble by Michelangelo. You could walk past it and possibly not notice it. As it decomposes over time, and the saplings grow up, it will become less and less noticeable.

It's "ephemeral art as public art," McCormick says.

And that's OK. Every city must deal with the mundane reality that rain pours off roofs and pavement. For a couple of millennia we've either let it gush into waterways or, more recently, tried a more responsible but uglier option of retention ponds.

Now comes someone trying to apply artistry to the situation. In my book, that's a big step forward.

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