Jerry Robinson, a union iron worker from local 172, works on one of several oversized numbers that make up the "Garden of Constance" being assembled outside of the addition to Dreese Lab near the OSU Bookstore. The exhibit, designed by Barbara Grygutis from Tucson, Ariz., is part of Ohio's Percent for Art Program that states any new building or renovation costing over $4 million must allocate 1 percent of that for sculpture and art.
What's That Number?

It'd be tough for Jim Scales of Knowlton Construction Co. to lose these numbers, part of a sculpture being built in the Dreese Laboratories Plaza on the Ohio State University campus. Scales was carrying construction materials yesterday for the artwork, known as "The Garden of Constants," by artist Barbra Grygutis. Knowlton Construction is based at 5689 Avery Rd.
Garden’s theme a tribute to science

By J. Allen Morris
Lantern staff writer

Students can study under the sun or sit back and contemplate science in the new sculpture garden being constructed this quarter.

The garden, located in front of the Central Classroom Building, is being built as part of the $20 million Dreyfus Laboratory renovation, said Thomas A. Heretta, architect for the University Architect's Office.

State law requires one percent of the budget for all publicly funded buildings that cost more than $4 million to be devoted to art, said Carol Snyder of the Ohio Arts Council.

The Ohio's Percent For Art program will help preserve the heavily used green space which existed on the new garden's site, Heretta said.

"The intent of the design of the building and landscaping was to keep as much (green space) as possible," he said.

Planning, design, fabrication and construction of the sculpture garden cost about $200,000, Heretta said.

"It will make a very striking picture," he said.

Barbara Grygutis, an Arizona-based artisan who won a national contest for the garden's design two years ago, is personally overseeing the final stages of construction.

Sculptures of various sizes, colors and placement make up the "Garden of Constants," a tribute to the impact science and math has had on society.

"I look at numbers as art," Grygutis said.

"Numbers have such a universal quality to them, and the shapes are beautiful."  

The sculptures consist of the numbers one through ten, with zero being the centerpiece of the design.

"Zero is the center point because the concept of zero was a major breakthrough in human thinking," Grygutis said.

The garden's brick walkways will be inlaid with bronze casts of scientific formulas generated by the various departments in Dreyfus Laboratory, Grygutis said.

"That's appropriate for this setting and for what goes on in the building," Grygutis said.

"We worked together so that (the formulas) would be meaningful to the concept of the piece," she said.

The garden site will be "like a canyon of numbers" when it is finished, Grygutis said.

Many of the final pieces were fabricated in Ohio, while the tile work on the one and zero was fabricated by Grygutis herself, she said.

Public sculpture is different from that designed for museums and private collections, Grygutis said.

"I think one of the exciting things about public art is that people relate to it in a different way," she said.

"It's not dogma, it's out there for different people to ponder in different ways."  

Grygutis is pleased with the project, and hopes the students will enjoy the garden and its symbolism.

"If it generates a lot of discussion, then as an artist I have succeeded," Grygutis said.
We’re talking BIG numbers

SCULPTOR BARBARA GRYGUTIS sits in the shadow of a giant 1, one of 10 numbers that dress up "The Garden of Constants" in front of Dreese Laboratory. The sculptures were installed as part of the $20 million lab addition. State mandates require that 1 percent of construction costs be spent on art.
Number artwork pays tribute to math

By Andrew Chapman
Lantern staff writer

The numbers located outside of Dreese lab are more than artwork. They represent different mathematical concepts and larger artistic theme.

The sculpture, entitled "Garden of Constants," was designed by Barbara Grygutis of Tucson, Arizona. It features the numbers zero through nine done in different sizes, materials and positions, as well as different mathematical constants set in the sidewalk around the artwork.

"The number zero is the center and it stands alone because the concept of zero is a major breakthrough in intellectual thought," Grygutis said. "Zero and one are binary numbers so they are covered with a different ceramic tile which I made myself."

The group consisting of the numbers one, two, three, five, and seven represent the prime numbers and are constructed of sheet steel covered with ceramic tile, Grygutis added.

"The number six represents a special number, the Mercene Prime," Grygutis said. "The number itself is six feet tall and constructed of brass."

"The numbers four, eight, and nine are the composite numbers and all three are lying on the ground," Grygutis said. "The numbers four and eight are designed to be benches for students to use."

The sidewalk surrounding the piece contains formulas which make up the constants used within the colleges of Electrical Engineering and Computer Science, both of which are located in Dreese lab, Grygutis said.

"I asked the department to generate formulas that held to the theme of constants. These formulas work together with the big numbers by showing how they are used, which is one level of the piece," Grygutis said.

In designing the piece, Grygutis said the overriding theme was to try to design a type of artwork that was meaningful to the disciplines that are located in Dreese lab.

"Most people say they know nothing about what is being done in computer sciences and math, but we do. We use the universal symbols everyday," Grygutis said. "I wanted to create a garden that reflected the universality of these ideas."

Grygutis said art should function on several different levels.

"For me, art is that is best is locally based but addresses universal themes, that’s what I tried to do," said Grygutis. "I also wanted it to be public art, very interactive. I feel successful if there is give and take with the piece."

Grygutis’s piece was selected from a group of 130 interested artists who submitted slides, said Julie Karovics, coordinator of Campus Graphics for the University Architect’s office.

"Barbara’s piece was far and away very responsive to the architecture of the site and the way people will use the site," Karovics said. "She went at it in a basic way, instead of going to some sort of lofty and obscure artwork. Everyone can relate to something on the site, even little children count aloud when they run between the numbers."

The work itself was funded by the Ohio Percent for Art, which is a state legislative program that allocs one percent of every state building project to artwork for the site.

"One percent of the Dreese lab budget (for the artwork) was roughly $195,000," Karovics said. "The artist commission was $191,000, and that included all of the work she subcontracted to other firms."

"When we first installed the work, there were a lot of negative reactions. People always question when the state spends money on artwork," Karovics said. "But everyone needs to understand that the money that is used to support this program is completely separated from the general fund of the University. You can’t legally take money from the general fund and apply it to the building fund."

"Another nice aspect of the piece is that once you put it out there, it’s hard to lose the green space its protected," Karovics said. "We tried to maintain as much of the lawn behind Dreese lab as we could, I think people need the space between buildings."

Karovics said future artwork is planned for Mendenhall, McPherson and Evans Labs, and the Max M. Fisher College of Business.
IN THE LAST PLEASANT days of Indian summer, students gather around Garden of Constants between Dreese Lab and University Bookstore. The sculpture by Barbara Grygutis of Tucson, Ariz., has proved to be a popular spot.
Jaime Intile/the Lantern

Playing (in) numbers

David Jorgensen, 2, of Fairfax, Va., climbs one of the sculptures in the Garden of Constants near the Central Classroom Building.
Big O

An unidentified child stands in the shadow of the large zero in the Garden of Constants Wednesday in front of the Central Classroom Building.
By the numbers

Andrew Holford, a senior majoring in English, takes a break in front of the Central Classroom Building Monday.
**Basic Description**

Title: Garden of Constants  
Artist: Barbara Grygutis, Tucson, AZ  
Installed: Spring 1994

The Garden of Constants is a bold, colorful, and highly popular installation, noteworthy in that it successfully relates to the site chosen for the work not only in its physical representation, but also in its connection to a deeper meaning related to the academic disciplines housed within Dreese Laboratory.

The piece consists of two major components, the first being a group of ten large number sculptures scattered throughout the site. The large number sculptures are of monumental scale; the largest of the units being roughly 16 feet in vertical height. The number sculptures are accurate representations of the typeface “Clarendon”.

The second part being an extensive collection of numbers and symbols set into the main walkway pavement. These insets are the mathematical and formulaic constants used primarily in Electrical Engineering and Computer Science. There is a continuous and flowing visual connection from piece to piece throughout the site.

**Detailed description**

The ten numbers, zero to nine, are the basic set of integers that comprise the elements of the worldwide counting system.

The prime numbers 1, 2, 3, 5, and 7 are placed vertically, grouped together, and are all the same color. The numbers 2, 3, 5, and 7 are fabricated of welded sheet steel over steel armature and painted a matte turquoise color.

The numbers 0 and 1 are fabricated of precast concrete covered with handmade turquoise glazed ceramic tile, which was fitted and crafted by the artist herself. Numbers 1 and 0 are the binary numbers which form the basis of all computer language. Zero is placed separately from the rest of the numbers in a significant location at the center of an amphitheater to express its particular importance as a counting device. The idea of “zero” is rather new compared to the rest of the numbers and its development and acceptance as a place holder revolutionized counting; allowing the ability to extend numbers to great, even unimaginable, lengths.
The number six is the mercene prime, an integer composed of two different primes (2 and 3). The number six is placed vertically on top of a granite wall and is the only number of the group fabricated of welded brass sheet over steel.

The last of the numbers, 4, 8, and 9 are lying prone on the ground. These are the composite integers. Numbers 4 and 8 are made of solid black granite and 9 is made of black pre-cast concrete. These numbers are designed for sitting upon. Each of these numbers happens to have a "hole" in it which allows people to gather in small groups facing each other for conversation and the exchange of ideas.

The engraved granite insets in the main walkway are scattered randomly but consistently throughout the sidewalk. The insets consist of symbols and numerical representations of mathematical constants. Some are clearly and easily recognizable by the average person while others are more obscure. There are 46 units in all, each having its own particular significance. The list of constants was compiled by faculty and graduate students housed at Dreese Laboratory.

**Artist Biography**

Born Hartford, Connecticut 1946  
Raised in Israel, 1953-1963  
Education: BFA, MFA University of Arizona, Tucson, AZ 1968 - 1971

Barbara Grygutis is an environmental sculptor who has been creating public art for many years. She is known for her large-scale, colorful tile sculptures and has completed over twenty five major public art projects around the country, from Tucson’s "Front Row Center", an arts oasis for the University of Arizona, to Hamilton New Jersey’s "Railgate" outside the New Jersey Transit Center.

One of her most acclaimed pieces of work was the Martin Luther King Jr. Memorial located in Columbia Missouri. The Memorial is an amphitheater consisting of large pillars with quotes by the late Dr. King, along with a spiral walkway that is composed of thirty-nine and one third stones, representing the short life of Dr. King.
Artist Statement
“'I create environmental sculptures of human proportions and reference using architectural elements and familiar objects. Among the sculptural elements the viewer can experience the interplay between art and nature. Usually large scale, the site specific, sculptural installations use imagery which is related in a very real way to the locale.

I have been creating works of art for public spaces since 1971. The works are large scale environmental sculpture. These works are thematically based and create visual statements about the communities for which they are created. The materials used range from hand made tile on cast concrete to the use of native stone and earth. All of the projects are designed and realized for the specific site for which they are commissioned. The works combine realistic images and symbols with architectural forms to span a broad range of subject matter and materials. Most recently, I have added cast bronze to this palette of materials. Color, a major component of these sculptural works is vibrant tones of cobalt blue, copper green and sunset mauve, all colors which reference the natural world.”

Reason for Purchase
The sculpture was purchased as part of the State of Ohio’s Percent for Art program.

Cost
The final commission to the artist was $194,000.00

This project was funded through the Ohio Percent for Art Program, a legislated program requiring 1% of capital appropriated project budgets over $4 million be set aside to commission artwork for the site. This particular project was part of the Dreese Laboratory addition, a $20 million addition to an existing building which houses the departments of Electrical Engineering, Computer and Information Science and a state-of-the-art High Voltage Laboratory.

Artist Selection Process
Roughly 130 artists responded to an open advertisement made by the Ohio Arts Council for the Dreese Laboratory Addition percent for art project. Five artists were identified as semifinalists, each of them preparing
a design proposal for review by the art selection/advisory committee. The unanimous choice after review of proposals was Barbara Grygutis' proposal for The Garden of Constants primarily because of the subtle way in which the artist responded to the simple directive from the Campus Art and Memorials Committee that the intended work should in some way reflect the academic disciplines (Computer and Information Science and Electrical Engineering) housed within Dreese Lab.

Ms. Grygutis' response to this directive was very basic and elemental. Her choice of the numbers and constants easily drew together an expression of the two teaching units, and it extended beyond that to gently focus the attention of the casual observer and engage them in participation with this public art installation.

**Fabricators and Suppliers for The Garden of Constants:**

- Precast Concrete: United Precast / Mount Vernon, OH
- Steel and Metal Work: Mount Vernon Machine and Tool Inc. / Mount Vernon, OH
- Ceramic Tile: Barbara Grygutis / Tucson, AZ
- Tile Setting: Fandrey & Associates / Newark, OH
- Granite Numbers: Cold Spring Granite Co. / Cold Spring, MN
- Foundation Installation: Knowlton Construction / Bellfountain, OH
- Granite Pavers: Columbus Art Memorial Co. / Columbus, OH

**Location**

Garden of Constants is located outdoors on the west lawn of Dreese Lab.

Dreese Laboratory
2015 Neil Avenue
The Ohio State University
Columbus Ohio, 43210