

Molecular Biology Building

title

The G-Nome Project

artist

Andrew Leicester

Location:
Molecular Biology Building

Date:
1992

Made possible by:
**Iowa Art in State
Buildings Program***
Ceramic Sculptors:
**David Dahlquist
Donovan Palmquist**



About the Project

"In modern society we expect instant understanding...like watching television where everything is laid out before us and problems are resolved by the end of the half-hour. My art is not instantly understandable, nor is it meant to be taken lightly. Good art tends to raise questions, and it is important for artists to focus attention the debatable. Otherwise, you get 'safe' art which serves only the prevailing popular theory." **Andrew Leicester**

The G-Nome Project fully integrates art and architecture in the Molecular Biology Building. Since the artist, Andrew Leicester, was selected at the start of the project, he was able to work with the architectural firm Hansen Lind Meyer Inc to incorporate the art into the building's design. As a result, Iowa State University has gained a striking example of the successful merging of art and architecture, as well as a building rich in meaning and function.

When Andrew Leicester was commissioned by Iowa State University to create public art for the Molecular Biology Building, he began to research the kinds of activities that would take place there. He found information at conferences, by attending lectures, by reading books, and through conversations. He kept a sketchbook of ideas and drawings on the subject. It became clear to him that the most debated area of current investigation in molecular biology is transgenic animal research. Both the academic community and the public are expressing their opinions. Philosophers, sociologists, animal scientists, and economists are among the many people who are discussing the potential legal and economic implications of genetic research. How research should be regulated and what ethics should govern decisions are all important issues.

**University Museums/Art on Campus Program
Iowa State University Ames, Iowa**

Leicester discovered that while genetic engineering holds the promise of finding ways to prevent diseases, it also holds the potential for exploitation or accident. Even before genetics was understood scientifically, people feared the combination of species. It was thought that dragons and monsters could be the result. The sculptures and mosaics of Andrew Leicester's *G-Nome Project* ask the viewer to prepare for the future. It is our responsibility to think seriously about the ethical issues surrounding the technological frontier of genetic research.

The *G-Nomes* are the twelve-foot tall terra-cotta sculptures that stand atop each corner of the Molecular Biology Building. In each hand the figures hold X and Y chromosome rods. The stylized black and white checkered coats worn by the *G-Nomes* are symbolic references to the black suits worn by business people and the white lab coats worn by scientists. Together, these two professions will lead the molecular biology program at Iowa State University. These black and white squares also bring to mind crossword puzzles and the challenge of solving word games. In this building molecular biologists are trying to solve the genetic code of life. The symbolic black and white checks are repeated throughout much of the art in the building.

The *G-Nome* figures may also be interpreted as "sacred guardians" of the Molecular Biology Building. Running up each side of the building beneath the *G-Nomes* is a twining pattern of ceramic tiles that represents strands of replicating DNA. Wrapped around each corner of the building, these strands symbolically hold the secrets of life which are being discovered inside. They also symbolize the fact that DNA strands contain the secret of life within themselves.

Leicester's title, *The G-Nome Project*, is full of meaning. It is a play on two relevant words: *gnome* and *genome*. The word 'gnome' can mean a dwarf-like creature that usually guards precious treasure, or it can mean a terse saying. 'Genome' is a scientific term for a complete set of chromosomes. This title also makes reference to the United States government's new three-billion dollar undertaking to map and decipher all the human genes -- *The Genome Project*.

Warning-Biohazard

Above the north entrance hangs a single terra-cotta relief called *Warning-Biohazard*. Two arms reach out from a design of jumbled letters on black and white tiles. When deciphered, the letters read: "HUMAN BEINGS ARE NOT YET WISE ENOUGH TO DIRECT THE COURSE OF EVOLUTION." This is a quote from Robert Sinsheimer, a noted scientist in molecular biology. The two outstretched hands look like the black contamination gloves built into the sides of controlled experimental chambers. These gloves, however, reach out from the building into the environment as if to use us and our surroundings as their experimental chamber.

HYBRIDS

Aren't we all hybrids
of dirt and sky,
of grass and wind
and animals?
What pushes light
pushes us
from the darkness,
corn from a seed,
consciousness from a stone.
As above, so below
and below that too.
Heaven waits
wherever we are,
whatever we've become,
even when we are finished
becoming
us.

Michael Carey, 1992

**Inspired by Hybrids by Andrew Leicester
located at the Molecular Biology Building**

St. Barbara McClintock of the G-Nomes

Protecting the four corners of Molecular Biology,
terra-cotta creatures, known by artists
for centuries in other forms—gargoyles
from the Renaissance? disguised angles?
gods of Aruba cloaked in Mayan robes?
these G-nomes, regulator genes, controller genes,
color conductors, turn maize kernels red,
black, pale yellow, ride protein horses,
are heritage policepersons,

O, scientists,
remember unscientific brainlock that kept
Barbara McClintock's work from recognition
thirty years. She found maize ring chromosomes
that break, repair themselves,
alleles that jump like grasshoppers, kick
up their heels, pack their DNA, move
although it wasn't proven until
the electron microscope. She asked herself
"What would I do if I were a maize G-nome?"

Get into the kernels starchy white heart.

Alone she maps the first controlling element,
develops a "slightly scandalous suggestion"
contrary to the accepted of theory that genes
were strung together like a train on a track
Linear and fixed. Barbara finds
they jump the rails, uncouple
themselves, recouple, insert themselves
between other elements, turn other genes
off and on like signal lights.

Her powers of perception so refined she knows
each plant by name, records each day's differences.
Under a microscope, sees "internal parts
of the chromosomes." She "...feels as if
I were right down there and these were my friends."

Dismissed by authorities in her field,
a geneticist, calls her "just an old bag
who's been hanging around Cold Spring Harbor too long."
Lederberg called her "either crazy or a genius."
She asks him and his colleagues to leave
her lab, throws them out for their arrogance,
"She feels she has crossed a desert alone
and no one has followed."

Thomas Aquinas saw seraphim.
Robert Millikan saw electrons.
Albert Einstein saw mathematics,
envisioned travelling on a beam of light.
Barbara McClintock sees chromosomes,
sees their parts, skittish G-nomes,
"...after anaphase in the first division...
they just unravel...second division...
constantly changing; "...they can do anything."

Saint Thomas, Robert, Albert, Barbara,
and four G-nomes above our heads,
protect these classrooms, greenhouse, laboratories,
empower all the microscopes, magnify the pure light
of reason, shower largess for unconventional
science; encourage the open mind.

The darkness opens a little from time to time.

Ann Struthers

GAIA:
MOSAIC ON THE FLOOR
OF THE MICROBIOLOGY BUILDING AT
IOWA STATE UNIVERSITY
for William Irwin Thompson

Look in a dog's eyes.
The world he sees is colorless.
Your eyes have three types of conical receptors.
His only have two, so he is left forever in moonlight.
You can't tell him how brilliant the air is
after a rain when the sun shines through it.
How do you explain a rainbow? I don't mean
reflection or light simply bent into the spectrum,
but the shimmer and glimmer on deep down things.

And a bird's eye has four.
What does she see, I wonder,
that we miss, and what about
the others who have more? What
interpenetrating worlds do they see
falling from a tangle of hair,
from the soft lowering of voice?
What universe, what consciousness
dwells in a cell, in the spirochete?
What mind binds the heavens?

It may be true, we may be half God
and half dying animal, still
we are not as important as it seems.
Nothing dies but us
and what needs us
to survive, only each
particular incarnation.

This porcelain water
stands for everything
seen through different eyes,
the myopia of science. It is
the gene pool of the open prairie,
and man's wild attempt to stir it.
Stand with reverence before its
strange reflection. Feel what
you are and own. Know
you will dissolve eventually
into this pool of stone.

Michael Carey, 1992
Farragut, Iowa

The G-Nome Project

Over the south entrance are four reliefs titled *Hybrids*. Surrounding these cross-bred figures are tiles containing the letters A, G, C, and T. These represent the four basic building blocks of DNA. The relief centered over the entrance contains three images. The central one is the mythological sphinx. On either side of the sphinx is a box and a horn. These represent the two possible outcomes of molecular research: an open Pandora's box of evil or a cornucopia of good.

Shotgun Method

Leicester designed three ceramic mosaics on the first floor of the building. The largest fills most of the atrium floor space and is titled *Gene Pool*. It is the image of a bacterium in the act of releasing strands of DNA. Scientifically speaking, a gene pool is a collection of genes in an interbreeding population. When this mosaic "pool" is viewed from above, it actually looks like a swimming pool, and thus plays on the double meaning of its title. Tile representations of split DNA strands run on either side of the *Gene Pool* and meet at the base of the atrium sculpture.

The entrance vestibule contains the mosaic called *Conception is Capitalization*. This work presents a complete set of scattered human chromosomes as seen under a microscope. Encasing these chromosomes is a circle of dots that represent the petri dishes that are used for growing cells in culture.

The third mosaic is located on the floor of the auditorium lobby. Leicester titled this work *Novel Agents* and derived its imagery from the phylogenetic tree and the fruit tree of the Garden of Eden. The phylogenetic tree maps out the evolutionary development of all animals and plants. The two symbols at the base of the tree represent a scorpion and a tarantula. Combined with the snake wrapped around the tree trunk, these poisonous creatures represent the possible dangers of tasting the fruit from this genetic tree. Above the tree flies a "super-genetic" creature, the dragon.

Shotgun Method is the title of the 24 terra-cotta medallions that hang from the walls of the atrium. On these medallions, Leicester put ancient mythical creatures and new creatures made up from their combined body parts. The top row of medallions are hybrid creatures from medieval mythology. The middle row shows the random distribution of these creatures' individual body parts. The bottom row consists of new hybrids created from the parts found in the medallion directly above. These new creatures are accompanied by hypothetical genetic codes that Leicester invented by giving each body part a number.

Forbidden Fruit

At the base of the atrium staircase stands the sculpture *Forbidden Fruit*. This female figure recalls the pose and symbolism of ancient goddesses. Many of the goddess figures that

have been excavated hold snakes in their outstretched arms. Snakes symbolize the powers of regeneration since they are "reborn" by shedding their skin. Instead of holding snakes in each hand, however, Leicester's sculpture holds strands of DNA that she has just split apart. In a sense, she is giving birth, since DNA holds the key of life and reproduces by splitting. This goddess is wearing a metallic contamination suit similar to those used in some scientific experiments. Her brain is exposed through the top of the helmet and from these roots the phylogenetic tree extends its branches.

More About the Artist

Armstrong, Diane. "Cobumora - Myth and Magic Merge at W.S.U." *Modern Veterinary Practice*, January 1985.

Cohen, Ronny H. "Reviews, New York, Art on the Beach." *Artforum*, October 1980.

Doss, Erika. "Andrew Leicester's *Cobumora*." *Landscape Architecture*, January/February 1986.

Doss, Erika. "Andrew Leicester's Mining Memorials." *Arts Magazine*, January 1987.

Morganthau, Tom. "Get rid of that Eyesore." *Newsweek*, August 17, 1987.

Rockcastle, Garth. "Art as Architecture." *Progressive Architecture*, October 1984.

THE G-NOME PROJECT

Four Roof Figures: <i>G-Nomes</i>	U91.71a-h
South Entrance: <i>Hybrids</i>	U91.72abcd
North Entrance: <i>Warning-Biohazard</i>	U91.73
Atrium Medallions: <i>Shotgun Method</i>	U91.74a-x
Atrium Figure on Podium: <i>Forbidden Fruit</i>	U91.75
Atrium Floor Mosaic: <i>Gene Pool</i>	U91.76
Entrance Vestibule Mosaic: <i>Conception is Capitalization</i>	U91.77
Auditorium Lobby Mosaic: <i>Novel Agents</i>	U91.78

Additional information on *The G-Nome Project*, other Art on Campus information sheets, and Art on Campus maps are available at the University Museums office - 290 Scheman Building (2nd floor), 515/294-3342, or visit us online at <http://www.museums.iastate.edu/>.

*The **Iowa Art in State Buildings Program** was enacted by the General Assembly of the State of Iowa (Chapter 304A, Code 1979. Sections 8-14) to provide for the inclusion of fine arts projects in state building construction projects in cooperation with the Iowa Arts Council. When a state building is constructed or renovated, 0.5% of the budget is designated to acquire art for it. Contributions received from the Masonry Institute of Iowa and in-kind contributions from Story Construction Company, Boucher Masonry Contracting, Inc., and Hansen Lind Meyer Inc. also helped make *The G-Nome Project* possible. At Iowa State University, the Art in State Buildings Program is administered by University Museums.

This information sheet is intended to be used in addition to viewing the Art on Campus. At no time should this sheet be used as a substitute for experiencing the art in person!

Art on Campus Poetry

Public Art Poetry has a tradition dating to Christian and Charlotte Petersen.

Christian, a Danish-American sculptor, was artist-in-residence at Iowa State University (then Iowa State College) from 1934-1955, during a time when poetry inspired sculpture and incorporated words as sculptural elements.

A primary tenet of public art is to have it physically and intellectually accessible to the public. Placement within the context of public spaces accomplishes the first goal, however, providing intellectual accessibility is the more challenging goal.

Educational programs for public art are imperative.

One educational component that provides access to understanding the Art on Campus Collection is poetry.

Several years ago, Neal Bowers, a professor of English at Iowa State University, was commissioned to create poetic interpretations of some of the Art on Campus sculptures.

He did so, and later he also administered, on behalf of the University Museums, a program whereby significant Iowa poets were invited and commissioned to create their own literary interpretations of the Art on Campus Collection. These literary interpretations are greatly appreciated, as are the artists who created them, for they contribute further interpretative avenues, inspirations, thoughts, reflections and an understanding into the Art on Campus Collection.

Jo Knudson and Maxine Charity funded the Art on Campus Poetry.

University Museums Art on Campus Program

What is public art?

This contemporary term represents ancient to contemporary objects, landscapes, and architecture located in places accessible to the public. The Pyramids, the Eiffel Tower, the St. Louis Arch, the Statue of Liberty, and the ISU Campanile are examples of architectural public art. The White House's Rose Garden, New York City's Central Park, ISU's Central Campus, and ISU's new Rieman Gardens are examples of public art as landscape. *Lady Liberty* on the Capitol Dome in Washington DC, the *Umbrella* in Des Moines, and *Left-Sided Angel* at Parks Library are examples of aesthetic objects as public art.

Public art:

- defines a specific and unique place
- expresses diverse qualities, beliefs and values of various cultures and artists
- is physically and intellectually accessible
- serves as a vehicle for inspiring and understanding change as presented in our contemporary society

What is Art on Campus?

Iowa State's Art on Campus Collection (public art collection) spans over a century, beginning with the design of Central Campus by Adonijah Welch, Iowa State's first president. Through the years Iowa State has commissioned, purchased, and received gifts of art that form the Art on Campus Collection. The traditional public art program began in the 1930s. At the height of the Depression, ISC President Raymond Hughes envisioned that the "arts would enrich and provide substantial intellectual exploration into our college curricula." Hughes invited Grant Wood to create the Library's agricultural murals that speak to the founding of Iowa and Iowa State College and Model Farm. Hughes then offered Christian Petersen a one-semester sculpture residency to create the fountain and bas reliefs at the Dairy Industry Building. In 1955, 21 years later, Petersen retired having created 12 major sculptures for the campus, including the *Fountain of the Four Seasons*, *The Gentle Doctor*, the *Wedding Ring*, and *Conversations*.

There were lean years for public art at Iowa State and, indeed, the country, from 1955 to 1978. However, following the establishment of the National Endowment for the Arts and Art in Public Places programs, public art gained nation-wide momentum. In 1978 Iowa passed the Iowa Art in State Buildings legislation, which today allows for the acquisition of public works of art for the campus. Private and class gifts also continue to be used for public art acquisition.

What is the Art in State Buildings Program?

The Art in State Buildings legislation requires that one-half of one percent of new construction funds be used to acquire public art. Since 1978, Iowa State has completed more than 27 Art in State Buildings projects, commissioned or acquired more than 135 works of public art, and involved more than 300 faculty, students and staff in the commissioning process. University Museums administers the Art on Campus Program and the Art in State Buildings Program for Iowa State University. Today there are over 200 major works of public art in the University's Art on Campus Collection. These works of public art are located across campus in buildings, courtyards, open spaces, and offices.



University Museums

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