Sculpture #3 for
William J Donovan Bridge
“Science”

Process

1. Call to artists
2. Responses by artists set out in public for comment
3. Review and recommendation by practicing sculptor
4. Earlier: Presentation to COW, placed on web site; Staff fields questions.
5. June 8: Tentative COW authorizes staff to work out a contract with artist of choice
6. City Council approves contract
7. Progress reports from artist; progress photos if possible
8. Inspection, acceptance and installation

Sculpture #3 for William J Donovan Bridge "Science"

11 artists

24 concepts

Considerations

- Success in representing the theme of science regardless of the narrative.
- Overall attractiveness, day time, nightime
- Does it invite discussion? Does it make one think? Will it engender conversation? Does it have some mystery? Can a brief narrative on the plaque add to the experience?
- Will it stand the test of time thematically?
- Artist's experience in public art and materials proposed
- Skill shown in past projects
- Reputation of artist to enhance City collection
- Will it raise or add to quality of City public art and attract other artists/visitors in the future?
- Safety to passers by. Can kinetic pieces hit or pinch?
- Ease of Maintenance: complexity of needed care. Will it
- catch trash, leaves, etc? Attract critters and/or nests?
- Durability: Ability to withstand time, elements and potential for vandalism

Artists and concepts

- For pieces that are not yet in existence, a piece can change between concept and completion.
- Important to note strong elements
- Potential for additional features (paint, lighting)
- Titles and narratives are pretty superfluous; don't allow them to overcome your own response to the piece. People will see a 1-2 sentence narrative on the plaque.
- Don't be confused by different level of details; look at previous pieces to see what they have done and can do. Many artists submit concepts which are refined going forward. We monitor progress.
- Following are photos or sketches of proposals followed by the artists narrative. At the end of each narrative is a link to a PowerPoint of the artists earlier work. When done, please send comments to artscience@cityofbatavia.net by June 7.

Guy Bellaver

Bulldog Quark

steel, fiberglass, putty, paint

Guy Bellaver

1/2" steel rod, painted black, with fiberglass segments constructed around the rod and then covered with body putty which is sanded flat. The fiberglass is marine grade, and painted red (per the maquette and images). The sculpture would be 8' H x 4' W x 2.75' D. The ratio of the maquette's dimensions to the proposed sculpture are 1" equals 1'.

The Bulldog Quark is a sculpture in Mr. Bellaver's *Quarks* Series, a collection of twelve sculptures begun in 2007. These sculptures are about energy, and are inspired by Fermilab -the energy both from the work done there, as well as the art and environmental emphasis to be found at the campus.

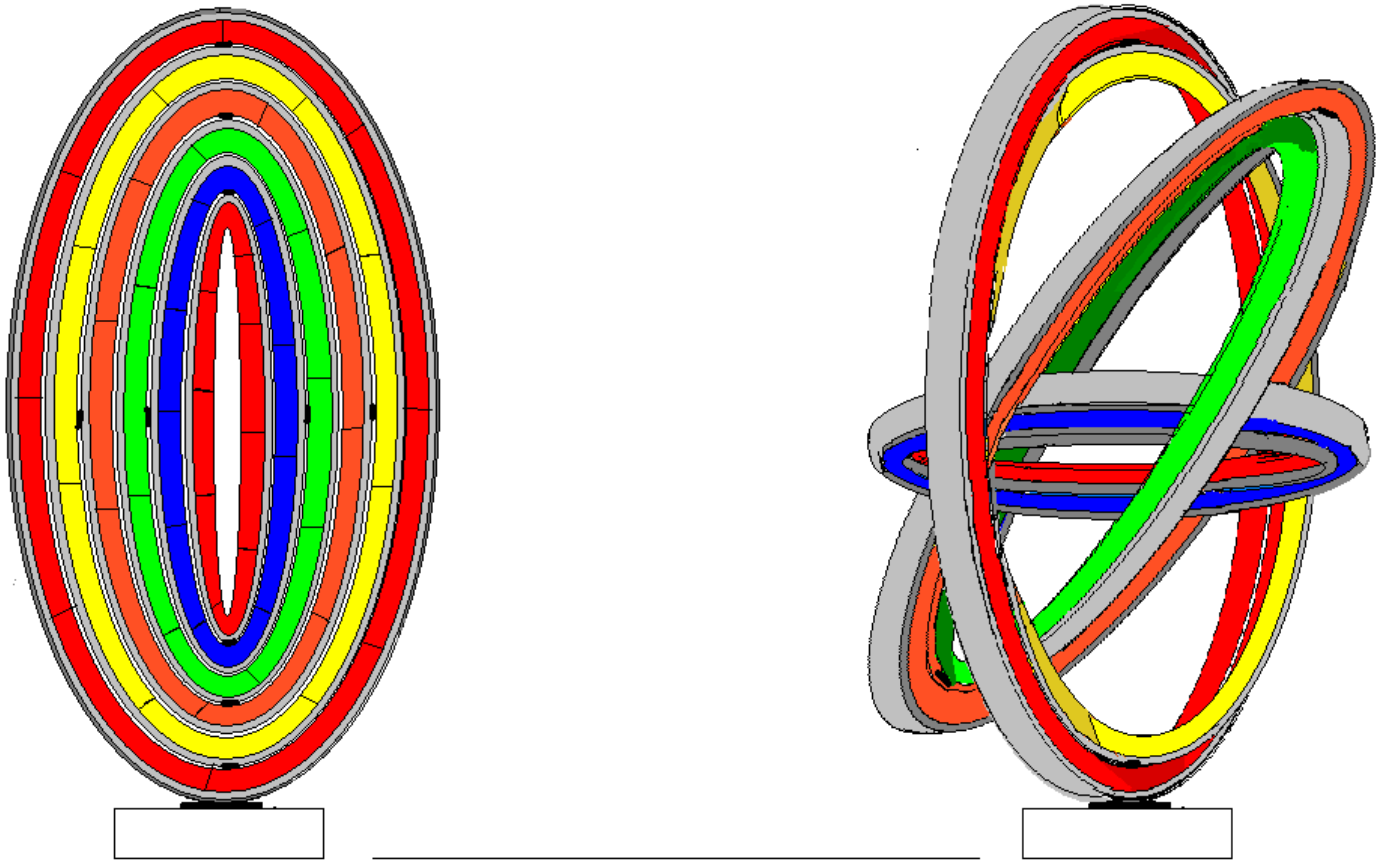
The collision of the protons and antiprotons in the Fermilab Tevatron Particle Accelerator can only be seen when captured by a very high resolution camera. Those images are the inspiration for the *Quarks* Series, which explores mass that is exploding and creating disintegrating arcs. The fiberglass segments represent mass, and the rod represents that mass leaving one area, and exploding into another. Each sculpture in the series continues the artist's career-long exploration of the relationship of positive to negative space, and the energy of their interaction.

This concept maquette is titled *The Bulldog Quark.* This sculpture is part of the *Quarks* series about energy, but is also specific to Batavia - a community that is home to Fermilab and for whom the Bulldog is iconic, generating energy within the community wherever it is seen. It also represents the community engagement of Batavia, especially within the arts, as exemplified by this project. The piece is painted red to represent the color of the Bulldog mascot. The red color also represents the energy of life on the prairie -both the prairie that predates the city's settlement, and the prairie that is being recreated at Fermilab.

Bulldog Quark

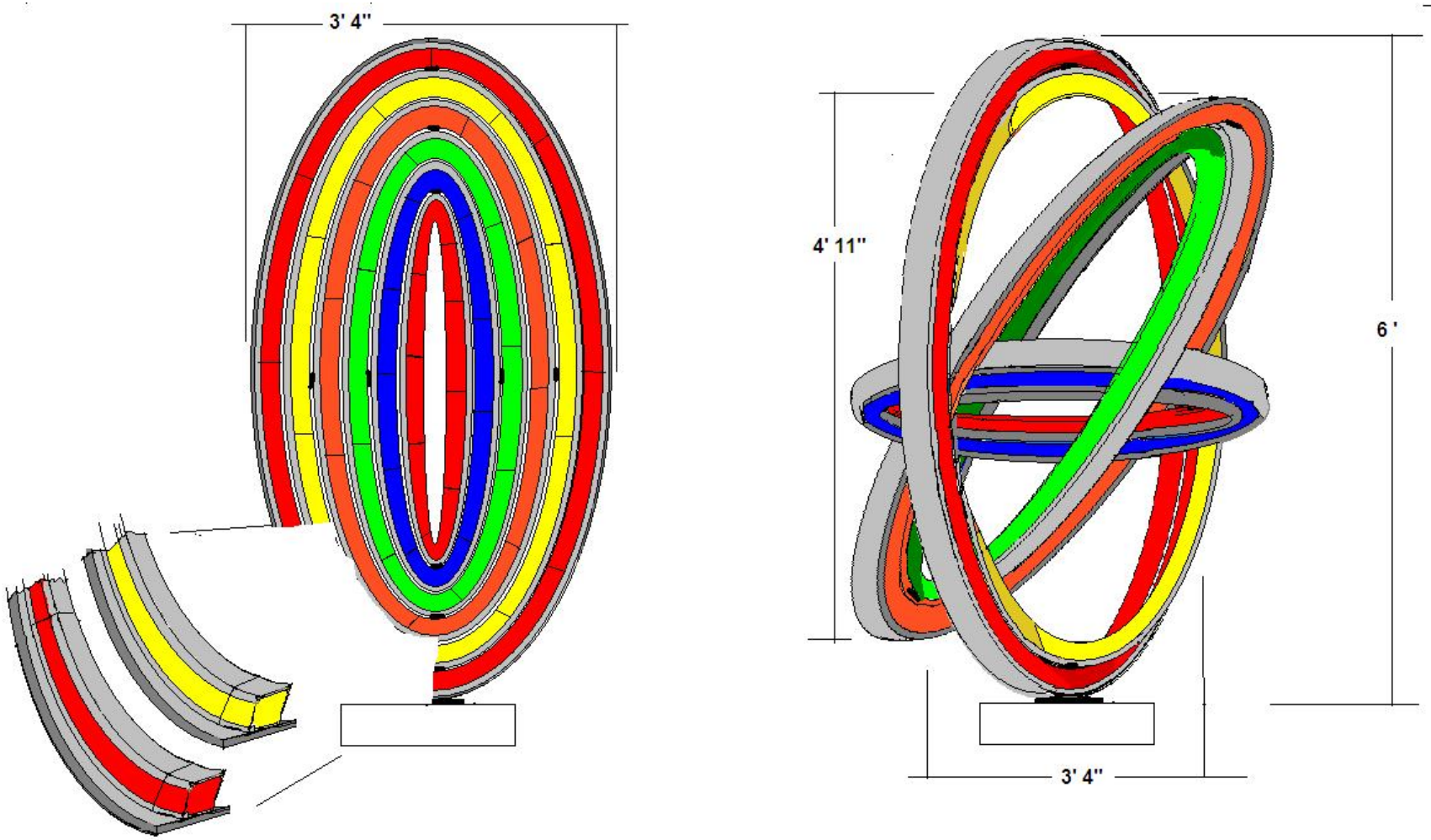
steel, fiberglass, putty, paint

Guy Bellaver



Luce in movimento

fiberglass, paint, steel



2" (D) x %" (W) Rectangular Stainless Steel Tubing, formed into six ellipses and welded. ½" (thick) x 3" (W) flat glass or plexiglass pieces (decision to be made based on city's possible concerns about glass), each attached to one of the stainless steel tubes via insertion of the bottom and side edges into small stainless steel channels welded onto the tube around the ellipse. There will be a %" space between each ellipse. The overall dimension of the sculpture is 6' H x 3.3' W x 4.8" D (on the horizontal axis when open).

Luce in movimento

fiberglass, paint, steel

Guy Bellaver

Luce in Movimento is about light and motion, speed, kinetic and potential energy, and color. It is the third piece in the "...in Motion" Series.

The multi-colored (red, orange, green, yellow, and indigo) plexiglass/glass pieces represent light and motion and color through refraction -the bending of waves (light, sound, etc.) as they pass from one medium to another, due to a change in their speed. Refraction is most commonly associated with light, but refraction also applies to sound and water/waves - representing the sculpture's siting on the William J. Donovan Bridge. Refraction's connection with light is very commonly associated with a rainbow, but it also connects with sound and music, through associations such as Sir Isaac Newton's division of the rainbow into seven colors, in symmetry with the seven distinct notes in the Western musical scale, and refraction's capacity to amplify distant sounds.

*Luce in Movimento 's*medium of its architecture - stainless steel tubing -as formed into the six ellipses that comprise the sculpture, can move if propelled by hand or by nature. Each represents the physics of potential and kinetic energy - energy possessed due to motion. Some of the sculpture's sections will spin on pivot points, and they will also spin on different axes (see images of *Fibonacci in Moto).* Stainless steel's component element of Molybdenum represents the principal of refraction in metallurgy -the property of metals that indicates their ability to withstand heat. And, as with metals, communities are forged, and become strong, from the heat of shared experiences.

Luce in Movimento

stainless steel, fiberglass or glass,

Chris Bennett

Enrico Fermi

bronze

Chris Bennett

A three quarter up to life-size portrait figure of Enrico Fermi, the nuclear physicist He is dressed in customary suit and tie, while holding and looking at a capsule used in proton accelerator research. He is taking a step forward toward the future.

The pedestal supporting him is an impression of an atomic particle, with its nucleus, and electrons swarming around it.

The overall height of the piece will be seven and one half to nine feet tall, depending on final determined scale, in consideration of the overall budget.

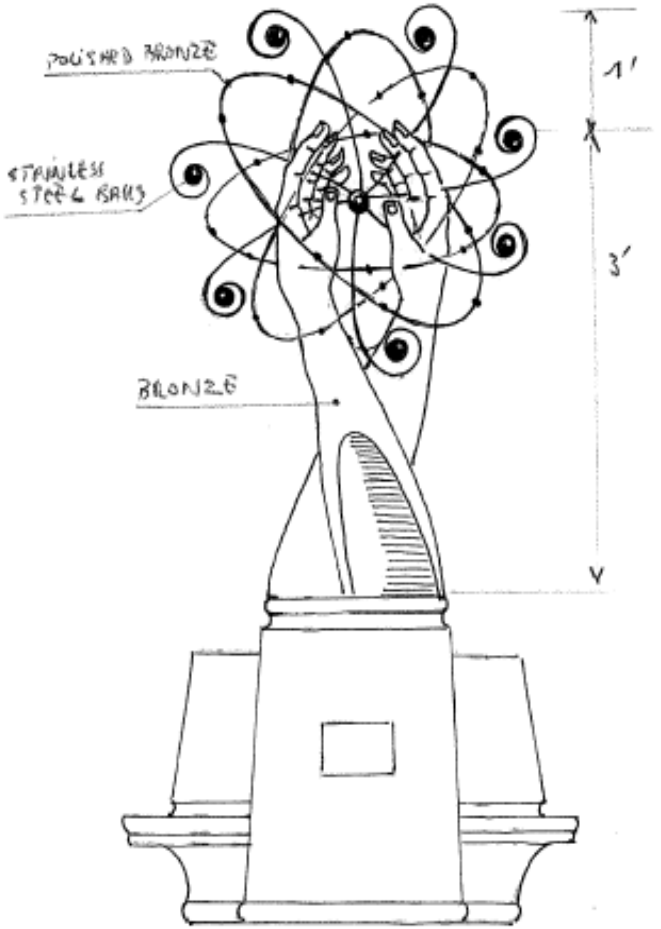
The materials will be a cast bronze figure, and a fabricated brass and stainless steel pedestal.

The composition will both reflect the science theme of one of the sculpture spaces available on the bridge and give tribute to the very important Fermi National Accelerator Laboratory, located near Batavia, as well as commemorate Mr. Fermi himself.

Enrico Fermi

bronze

Bouba Boumaiz



Quantum

bronze, Stainless Steel

Bouba Boumaiz

Among the biggest scientific assets of the United States of America is Fermi Lab. My sculpture proposal (Quantum) refers to the science behind Quantum Physics and its influence on us and everything surrounding us.

Man always tried to harness energy: from water, wind and fire to the smallest particle, and that is where my inspiration comes from.

My sculpture proposal is composed with two elements. The first element is a 3’ tall pair of intertwined hands, trying to grasp that energy that is invisible to the naked eye. The second element is an arabesque of particles orbiting the hands forming the visual effect of a particle acceleration.

The hands will be cast with bronze and the particle orbits will be made with polished bronze rods and the particles will be a polished stainless steel balls.

Quantum

bronze, stainless steel

Bobbie K Carlisle

Stretch the Limit

bronze

Bobbie K Carlisle

One of the most famous surfaces, the Möbius Strip, named for Dr. August Mobius and made famous by M. C. Escher becomes the focus of this sculpture depicting man's effort to define his world through science. The strip, not a normally definable surface, is a common sense-defying continuous loop with only one side and one edge.

The sculpture, "Stretch the Limits", depicts this shape, and man's attempt to put it to use. It took nearly 150 years from the time Möbius strips were discovered for scientists to learn to calculate the exact shape of this odd object, and even then it is only possible if exact measurements and materials properties are known. Much like the world we live in, we can see things that we can't master though we still attempt to do so. We attempt to reach beyond, further our understanding, stretch our limits.

This attempt is called science. We quantify and label, define and formulate, all in an attempt to verify that our theories are correct or that we need to start fresh. Physics, quantum physics, and math all intersect with this strip that science defined long ago but just recently learned to calculate. The quest goes ever on, the quest and the strip.

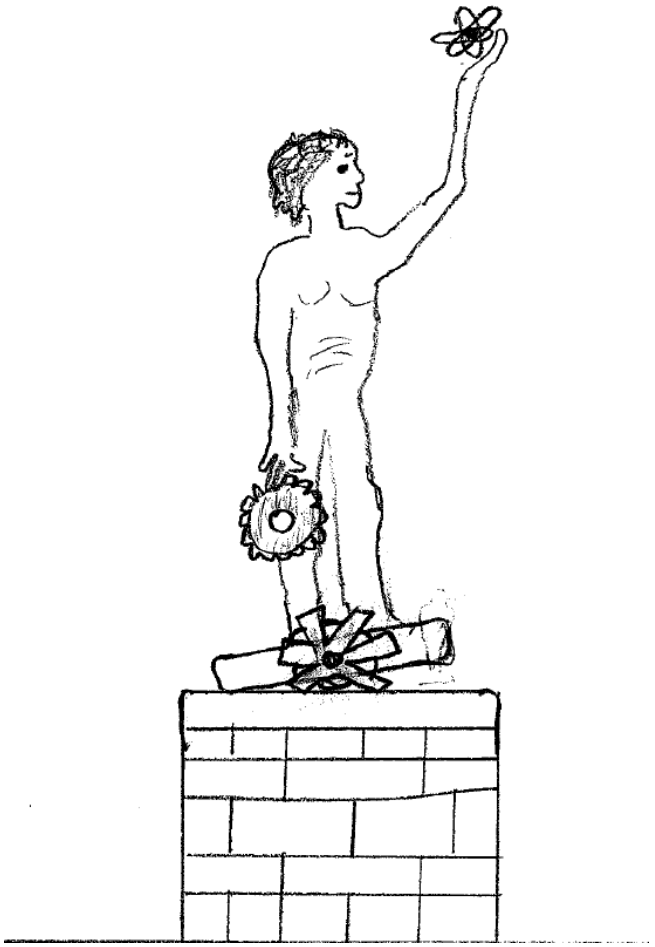
I create bronze sculptures portraying boldness and strength while provoking interaction. My figures go beyond first impressions to challenge the intellect and cause the viewer to look within for greater meaning. My work reflects my love for classical sculpture, yet coming at it with a modern approach and an appeal to the psychological underpinnings of an image to form connections to the struggles and triumphs of modern life.

My sculpting career began four decades ago. My subjects range from wildlife to Western, to figurative and liturgical sculpture. My work is internationally known and recognized, especially for my "Self Made Man", which is installed in Batavia as well as many other places. Of my numerous other pieces, many have been installed in public and private locations throughout the world.

Stretch the Limit

bronze

Douglas Eageny



Untitled

bronze, glass, brass, stainless steel, steel

Douglas Eageny

My concept of Science for this sculpture represents man surrounded by Technology and Industrial Sciences of the past as he looks forward to the achievements and possibilities of the future. Batavia's manufacturing history would be melded with Fermilab's accomplishments relating to the atom.

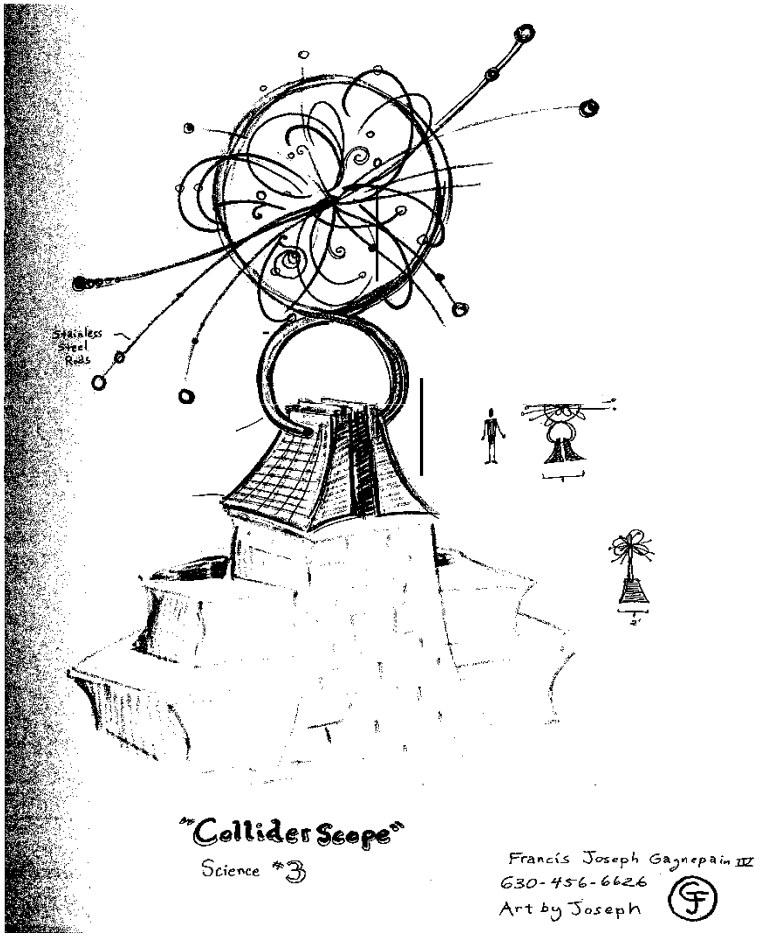
The main body of the piece would be constructed out of a 4 ft x 8 ft x 3/8 in sheet of stainless steel cut in an abstract shape of a man. One upright hand would be holding an atomic shaped symbol, representing achievements and discoveries with the atom. This arm would be bent at a 15 degree angle. The atom symbol would be kinetic allowing it to rotate in the wind. A red glass ball would be located in the center of the atom, allowing sunlight to illuminate the object. The other hand is draped at his side, holding a mechanical sprocket. This sprocket would also be made of brushed stainless steel, approximately 12" in diameter, representing current manufacturing in Batavia. A piece of blue glass would be located for the eye of the sculpture, looking toward the atom. Solid brass rods would be inserted through the head area and bent to portray flowing hair.

The statue would stand on a base constructed of stainless steel shaped like a millstone. It would represent the past manufacturing capabilities and accomplishments of Batavia. This base would be 2 feet in diameter. Also incorporated in the base would be pieces of a windmill. These pieces would be made out of carbon steel and allowed to patina, signifying the historical past of Batavia.

Untitled

bronze, glass, brass, stainless steel, steel

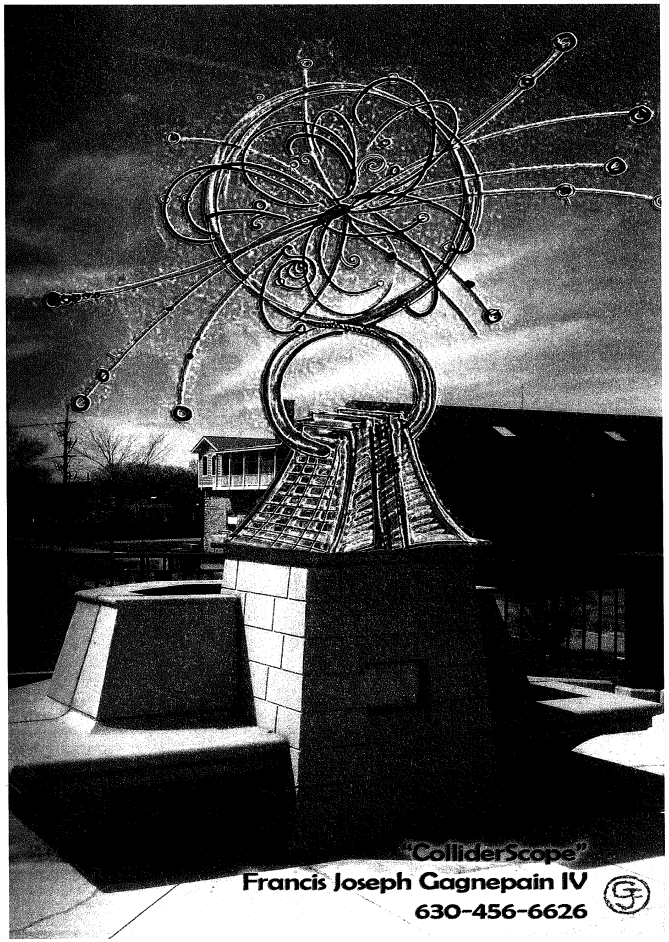
Francis Joseph Gagnepain IV



ColliderScope

stainless steel, glass balls, glass, lights

Francis Joseph Gagnepain IV



ColliderScope

stainless steel, glass balls, glass, lights

Francis Joseph Gagnepain IV

Fermi National Accelerator Laboratory is the inspiration behind my entry for the "Science" pedestal sculpture.

There are three overlapping components to the design: an inspired model of the Wilson Hall Building, a figure eight of intersecting rings, and the paths of particle disbursement after a collision.

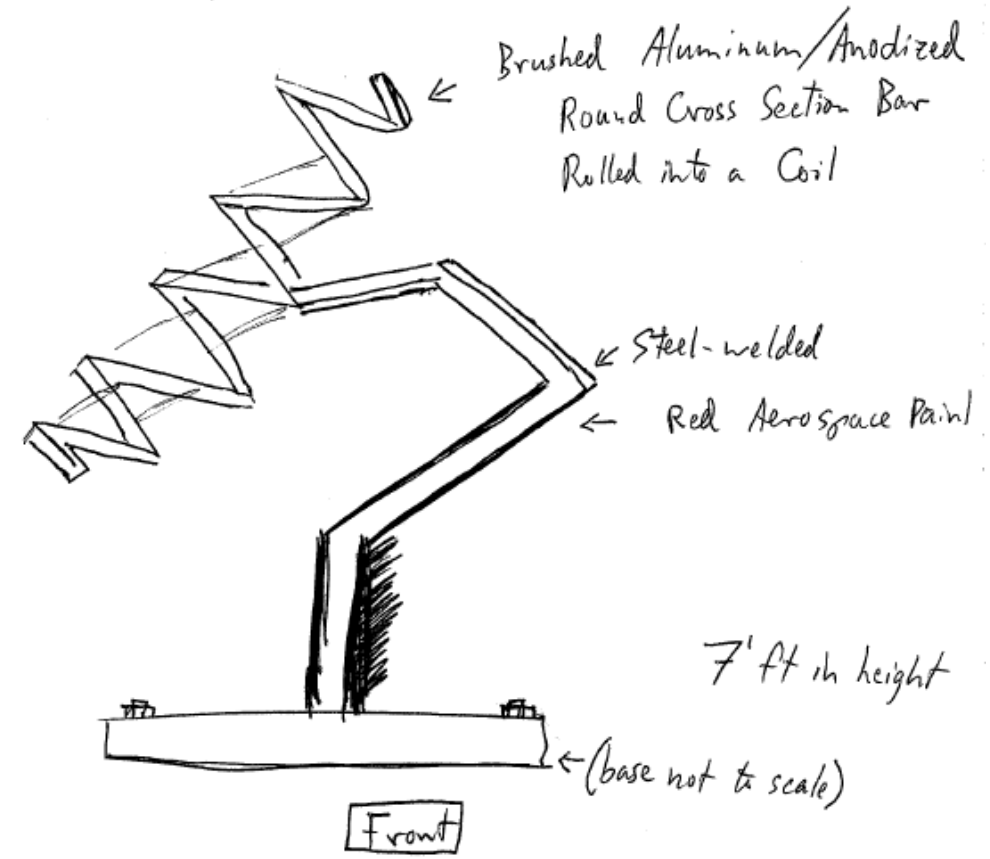
Wilson Hall is named after Robert Rathbun Wilson, the first director of FermiLab, also designed much of the sculpture at Fermi. Wilson Hall is a symbol of FermiLab and a strong icon of the Eastern Batavian horizon. The parabolic sloping sides of the structure pull the eyes upwards and suggest the idea of acceleration. The two rings symbolize the Tevatron and the Main Injector Ring, which are the particle accelerator rings at FermiLab. Charged protons, and antiprotons were accelerated within these large underground rings by using magnetic fields, before being smashed together. These collisions are what physics scientists use to detect subatomic particles such as quarks. The explosion of lines, spirals, and trails is based on the particle maps that are captured by the detectors at the lab.

Large multicolored glass beads will be on the particle paths, representing the different particles. The path lines would be stainless steel rods and pipes. The Wilson Hall structure would be stainless steel and glass. Any painted areas would be powder coated or anodized for longevity. I'd imagine the entire sculpture weighing approximately 300 pounds. I would like to incorporate LED lighting into the inside of the Wilson Hall, so the building would be illuminated from within and light directed upwards to catch the particle streams.

ColliderScope

bronze, glass, brass, stainless steel, steel

Kermit Gilbert



Electric Helix

anodized aluminum, steel, paint

Kermit Gilbert

My sculpture has been created specifically for the site; it will be expressly created to embody Science in Batavia, allowing a very modern artistic aesthetic to come forth.

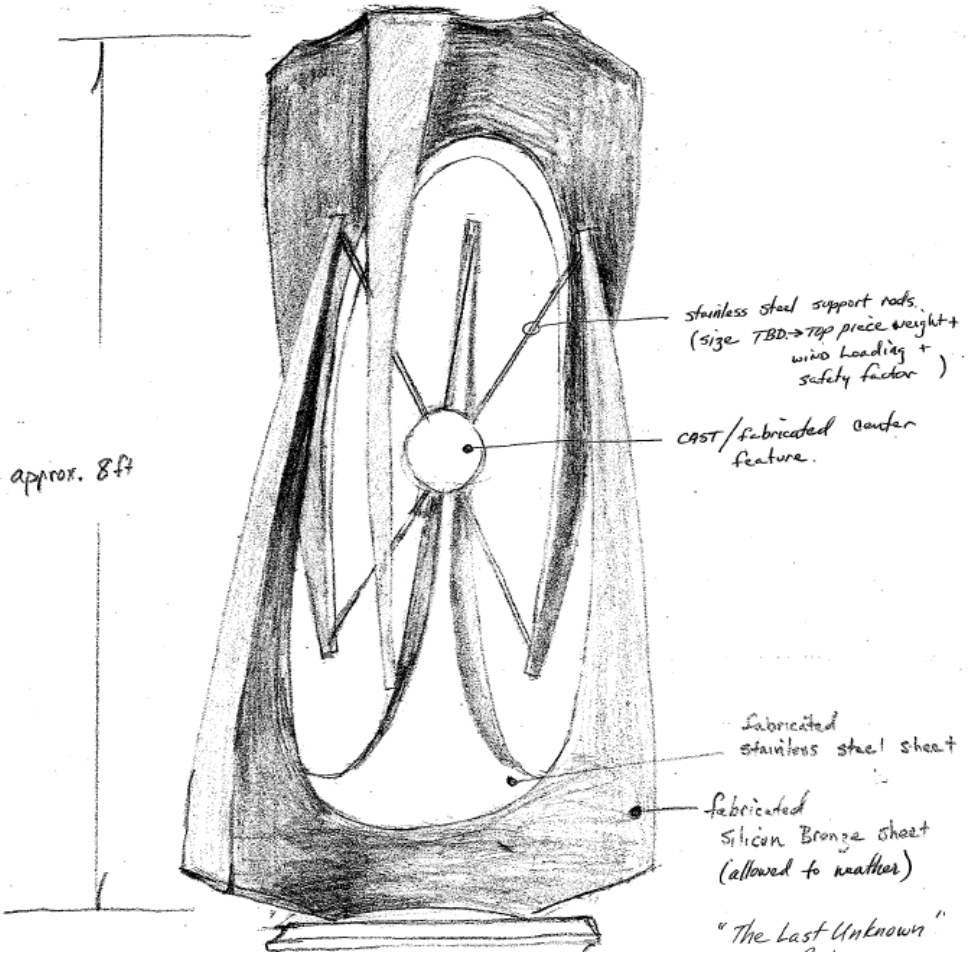
Each sculpture will created out of brushed and •anodized aluminum and stainless steel. Paint used will be of aircraft grade.

The dimensions of the sculpture will complement the size of the existing pedestals perfectly. Each sculpture will be shown at an angle that implies movement and energy. It will also complement the existing structure of the bridge and provide a balanced and harmonious view when seen from up or down river with the existing sculptures. No pre-made sculpture can provide the dynamic qualities of a site-specific work.

Electric Helix

anodized aluminum, steel, paint

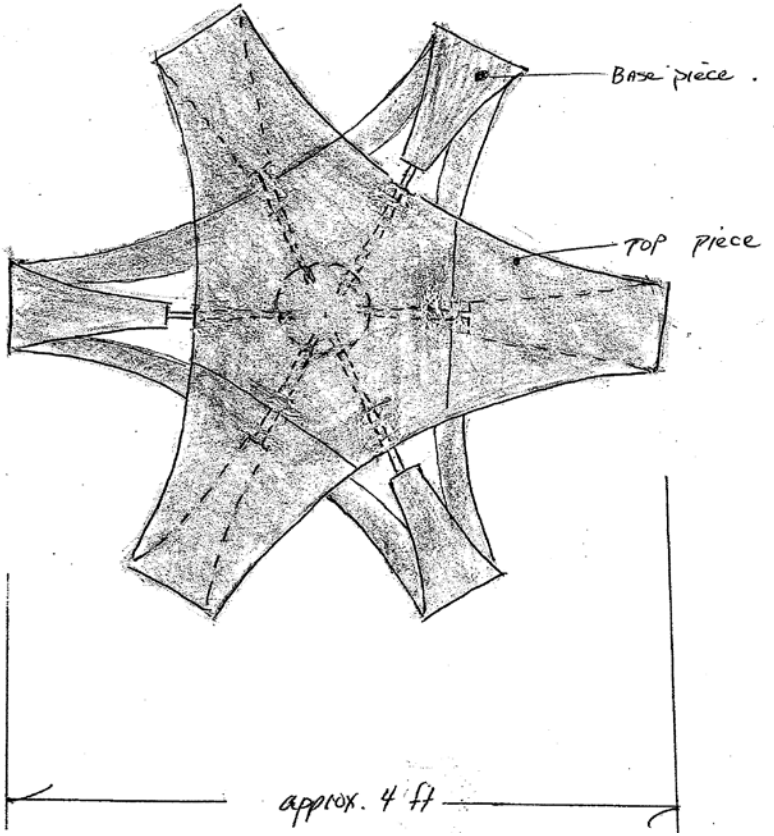
Frederic G Klingelhofer



The Last Unknown

bronze, stainless steel

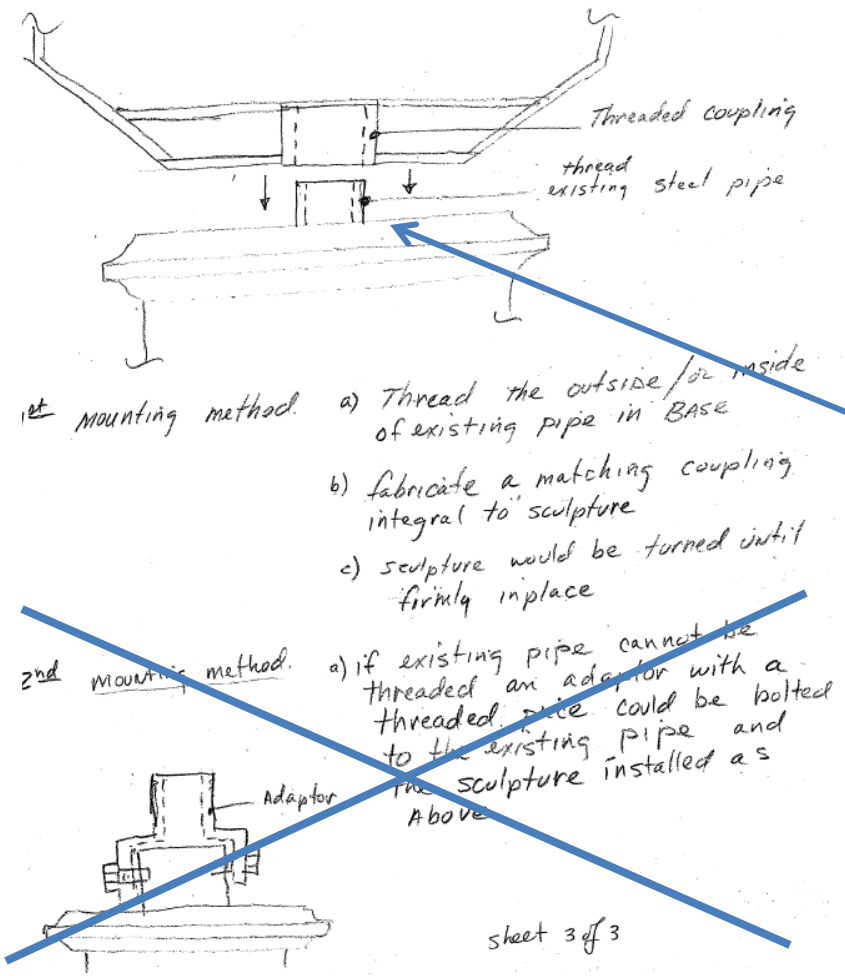
Frederic G Klingelhofer



The Last Unknown

bronze, stainless steel

Frederic G Klingelhofer



City Note- Existing pipe in pedestal is threaded, so #1 would be used

The Last Unknown

bronze, stainless steel

Frederic G Klingelhofer

"The Last Unknown" consists of three major elements. The bottom element is a three fingered construction of silicon bronze and stainless steel. The fingers are arranged equilaterally and extend upward as if about to grasp an object. A second element, identical to the bottom, is suspended inverted within the bottom element forming an open space within the interlocking fingers. The third element a textured stainless steel sphere intersected by six stainless steel rods provides the physical support for the upper element.

The upper and lower elements represent the passion, intellectual tools, and the physical tools of the people engaged in scientific endeavors. The center element represents the objects, the concepts, and the goals of their pursuits.

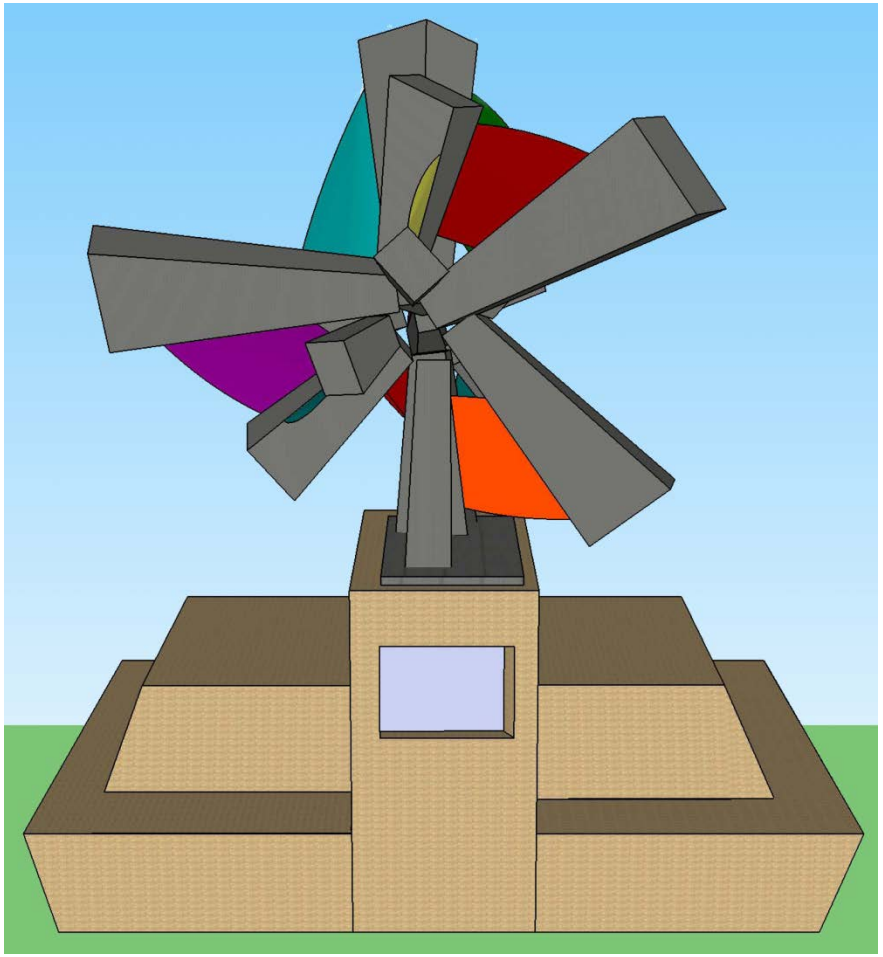
I chose to make an abstract sculpture because the scope of the influence of science on every living creature on Earth and the enormity of trying to depict realistically one or several of all the important "discoveries" of science overwhelmed me. I want to make a sculpture that remains relevant for as long as it stands. Picking any discovery or event past or present will surely be eclipsed by another more exciting or important development in the future. I therefore set my sights on the single discovery that will never become outdated, the final discovery, "The Last Unknown".

The assembled sculpture height will be approximately 8 ft and the width will be approximately 4 ft. The central sphere will be approximately 14 in Dia. The sculpture mounting will incorporate the existing base structure, please see attached sketches.

The Last Unknown

bronze, stainless steel

Steven Lockwood



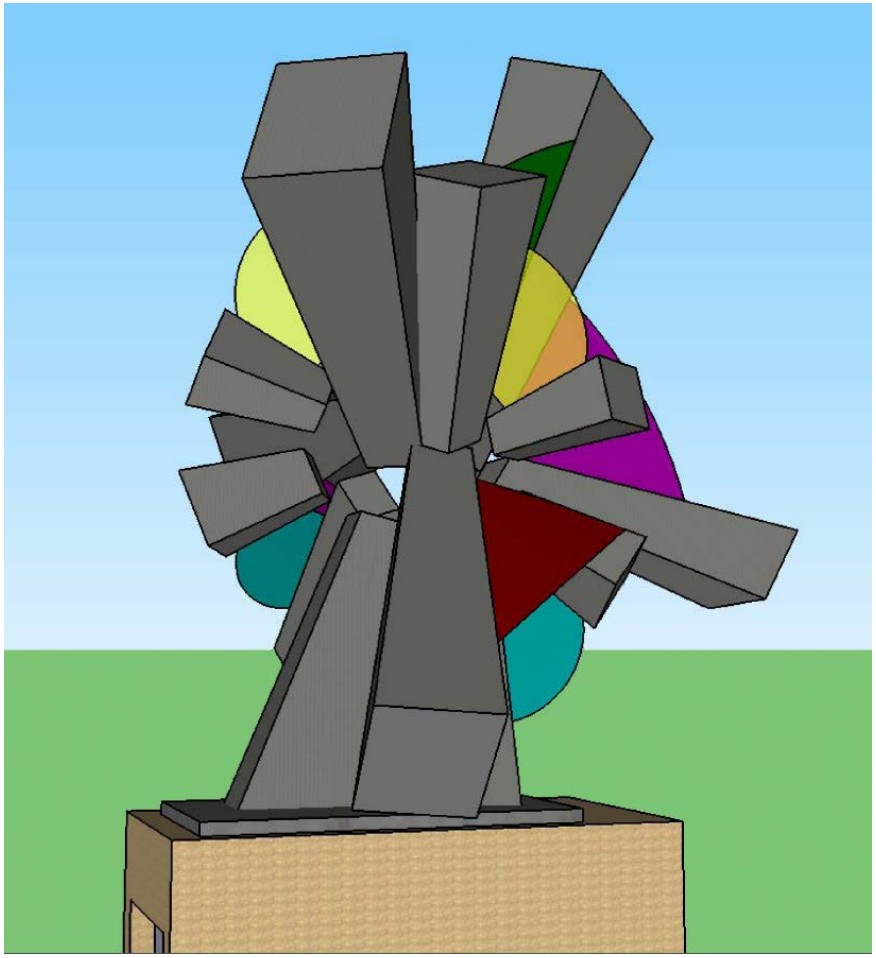
video

Interaction Point.avi

Interaction Point

steel, paint, colored plexiglass

Steven Lockwood



Interaction Point (side)

steel, paint, colored plexiglass

Steven Lockwood

Interaction Point: a meeting point between two distinct entities, one being downtown Batavia and the other being the scientific community at Fermilab- one in which the sum of the parts are greater than either alone.

The Tevatron at Fermilab had two such interaction points at the heart of the detector experiments CDF and D0 where beams of protons met beams of antiprotons, each travelling very nearly the speed of light in order to collide in a series of experiments that spanned over two decades. From the point of interaction a shower of various daughter particles reveal themselves. Some, like the Top Quark, are much greater than either of its parent proton and antiparticle would erupt granting us ever sharper insight into the fundamental nature of the world around us. This sculpture represents this interaction: the rays representing the products from the interaction point, and the arcs of color the statistical significance that, developed over time, lend greater understanding, leading the way to new advances in the City of Energy.

Size: 4'.6" x 4'.6" x 4'.6" The plexiglass panels will be transparent , in primary colors so that additional colors will be created at certain angles .

Interaction Point

steel, paint, colored plexiglass

Fisher Stolz

Untitled

stainless steel

Fisher Stolz

Three primary concepts of science are evident in the expressed forms of this sculpture. In the upper portion of the design the viewer can clearly see a well-known depiction of an atom with a nucleus and orbiting electron paths. Atoms are the elemental building blocks of matter in the universe; representing its configuration is a fundamental idea in this work.

Structurally supporting both the nucleus and the electron orbits of the atom are six square rods that converge at one corner of the base of the sculpture and diverge to touch the linked circles and the sphere centered within them. These are meant to represent protons traveling at near light speed, colliding to break down into smaller subatomic particles. Together, this concept linked to the model of an atom, are meant to articulate the scientific research and profound accomplishments made at the Fermi National Accelerator Laboratory located on the eastern border of Batavia.

Another substantial area of scientific research that has transpired in the era between when the original bridge crossing the Fox River was built and the new William J. Donovan Bridge was built has involved identifying the double helix structure of DNA and later the completion of the Human Genome Project. Different DNA combinations make each one of us unique. In this sculpture the double helix representation is specifically designed to fit on the square base while supporting the atom form and clearing the proton pathways.

The final design for this sculpture came about by using many methods shared by artists, particularly sculptors, and scientists. Research leads to an idea. A hypothesis is described and tested. Something is learned and revisions are made and tested. New ideas evolve from the processes and are incorporated. At a particular point, the model makes sense, supports itself. Logic, scientific method, engineering and aesthetics meshed to come up with this proposal. Hopefully the complex thought processes are communicated in ways that are inspirational, have clarity and an elegant simplicity. The sculpture will be approximately 8' tall and made from stainless steel.

Untitled

stainless steel

Bruce White

Fractal Limits (Concept 1, without piercings)
stainless steel, paint (lights?)

Bruce White

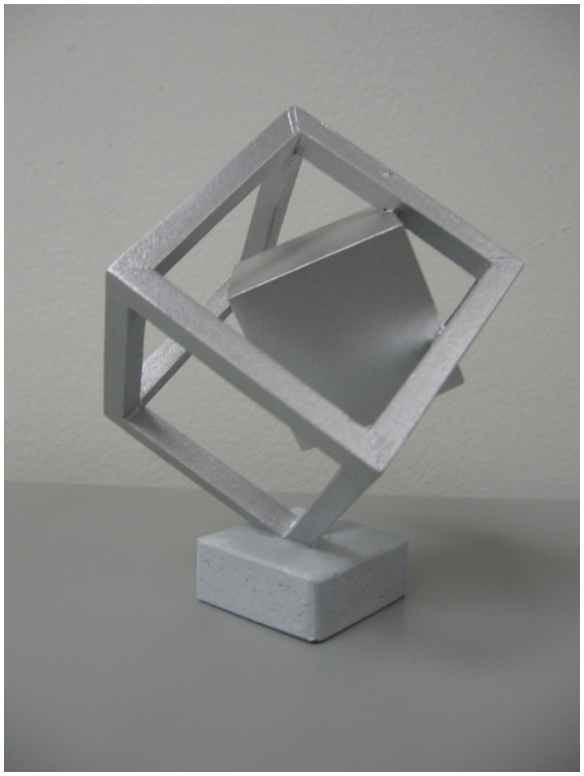
Fractal Limits (Concept 2, without piercings)
stainless steel, paint (lights?)

Bruce White

Fractal Limits (Concept 3 without piercings)
stainless steel, paint (lights?)

Note: While this maquette is essentially held sideways on posts,
it can also be positioned near vertically with no supports.

Bruce White



Fractal Limits (4 without piercings)
stainless steel, paint (lights?)

Bruce White

In more recent years I find my sculpture has been influenced by my readings in Chaos Theory and by the unpredictable patterns in nature-an orderly disorder. For example, the changing patterns of migrating birds in flight, or the swirling mass of bats as they leave a cave at night and somehow manage to avoid colliding. As for trees, I have always found myself attracted to the ever-changing light patterns on the ground from the sun that penetrates the wind-blown foliage, and to falling leaves whose downward path is determined by the wind and by their contours. By randomly piercing a sculpture on all sides, light is both captured and reflected outward. This happening also reflects ambient light and color at night.

PROPOSAL: FRACTAL CLUSTER As mentioned earlier, many of my recent works have been influenced by the wonder of science, and chaos theory in particular. This proposal is one which I designed around previous related works. Enclosed in this submittal (next slide) is a photograph of an older work titled "Fractal Triangle.“ Looking at the large triangular surface you will see eight sub-divided triangles with random cuts defining them. As I understand it, theoretically, these sub-divisions could continue on into infinity. That is an incredible thought and one I find beyond my imagination.

Based on this influence, I made a cluster of different-sized four-sided pyramids, as though they may have collected similarly to crystal formations. The stainless steels units in any of the 4 concepts proposed would be elaborately pierced to make it a virtual illuminated light work.

Bruce White

Fractal Triangle

Light Ring

The stainless steel units would be elaborately pierced to make it a virtual illuminated light work.

David Zahn

Untitled

bronze, glass, brass

David Zahn

The sculpture that I am proposing for the William J. Donovan Bridge Sculpture #3 (Science) is a bronze sculpture about 7 feet tall. In my sculpture I show a young woman looking at a sphere that represents an atom. The wonder of the atom is that it is something so small, but makes up all things. This idea links to the community of Batavia because of the innovation that occurs at Fermi laboratory and all of the sciences (earth, physical, biological). The sculpture also captures the curiosity and wonder we all have toward science and nature.

The overall impression of my concept will be that of a dynamic abstracted figure in bronze. As the viewer looks at the work, the spiraling forms evolve into the shape of a woman holding an atom. The spiral represents the ever changing field of science; the atom represents the fixed foundation.

The work has an interesting outline and up close there are many details and forms to observe.

The atom and the woman are both emerging from simple, and elemental shapes.

Untitled

bronze, glass, brass