Works of 3-D Form

Gerry Stahl
Gerry Stahl's Assembled Texts

- Marx and Heidegger
- Tacit and Explicit Understanding in Computer Support
- Group Cognition: Computer Support for Building Collaborative Knowledge
- Studying Virtual Math Teams
- Translating Euclid: Designing a Human-Centered Mathematics.
- Constructing Dynamic Triangles Together: The Development of Mathematical Group Cognition
- Essays in Social Philosophy
- Essays in Personalizable Software
- Essays in Computer-Supported Collaborative Learning
- Essays in Group-Cognitive Science
- Essays in Philosophy of Group Cognition
- Essays in Online Mathematics Interaction
- Essays in Collaborative Dynamic Geometry
- Adventures in Dynamic Geometry
- Global Introduction to CSCL
- Editorial Introductions to ijCSCL
- Proposals for Research
- Overview and Autobiographical Essays
- Theoretical Investigations
- Works of 3-D Form
- Dynamic Geometry Game for Pods
Gerry Stahl’s assembled texts volume #20

Works of 3-D Form

Gerry Stahl

2018, 2019, 2020
Introduction

This volume of my assembled works differs from the other volumes in many ways. It does not present writings from my academic career but displays artifacts that I created either as an escape from professional labors or following my retirement from academia. Rather than describing the design of immaterial software or theories, it presents photographs of and comments about physical objects—mostly sculptures—which I fashioned out of materials like wood and clay.

There are chapters on the following aesthetic creations and approaches:

1. *My wood sculptures from 1976 to the present.* Wood sculpture has been my primary artistic endeavor during my adult life. Every few years, I did a couple pieces. In retirement, I have been more productive.

2. *Clay sculptures and pottery from 1970 to the present.* As a young child, my mother taught me basic pottery. I enjoyed occasionally working in clay in my 20s and always looked forward to doing more. I felt that the medium of abstract clay sculpture had much more potential than was represented in the art world, even though clay may be considered one of the oldest surviving artistic media in the world. The universality of clay work may be attributed to its combination of utility and beauty. Retirement has allowed me to explore ceramic sculpture in my own studio as well as to take pottery lessons at local art centers.

3. *My houses, which I helped to design* with Carol in Philadelphia, Boulder, Philadelphia and Chatham in about 1978, 1997, 2004 and 2015. Having designed the Chatham house incorporating many species of wood, I was eager to create wooden furniture to go with the house. The house was designed in 2014/15 and built in 2015/16. I constructed the furniture in 2016/17, and the house was landscaped at that time as well. In 2017/18, I turned my basement furniture shop into a productive sculpture studio.

4. *Reflections on organic form from nature.* I strive to create asymmetrical, flowing, sensuous, organic forms whose structures are inspired from human forms, animal shapes and other organisms and structures. Living by the ocean, I have sculpted some forms that I found on the beach. I am fascinated with the sophistication of sculptures dating back far into pre-history. I have made a few sculptures based on such works, as well as studies of modern sculptors.

5. *Thoughts on opening up space.* While my first wood sculptures followed closely the original solid form of their logs, I increasingly worked on “opening up” the mass of wood to see inside and to create internal spaces, interconnected openings and negative 3-D forms. Here I collect views of several of my
sculptures to illustrate possibilities for “opening up,” and to indicate the development of my approach to this.

6. *The practice of sculpting 3-D form in wood.* This section documents the succession of techniques and tools I have often used in my wood sculpture, illustrated with photos from the creation of several different works.

7. *A chronological catalog of all my sculptural works,* numbering over a hundred all together, of diverse sizes and materials.

Keep up to date with my sculpture by downloading the e-book version at: [http://gerrystahl.net/elibrary/form/form.pdf](http://gerrystahl.net/elibrary/form/form.pdf). The digital format of this volume allows me to continuously add my latest items to the catalog and other chapters. Viewing the PDF allows searching the text and zooming in on details of the sculptures. A large pdf with even higher resolution is also available at [http://gerrystahl.net/elibrary/form](http://gerrystahl.net/elibrary/form).
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1. Sculpture: 3-D Form from Wood

I began exploring wood sculpture in the mid-1970s. Wood sculptures continued to be my most important sculptural works throughout my life. Here are two large pieces from 2020:

Angel of Progress and Return of the Osprey.

Following are my wood sculptures in chronological order.
Gelassenheit (1976)
Gelassenheit (Let it be). Black walnut. Pine Run, New Jersey. 1976. Influenced by Heidegger’s ontology of unfolding beings, I let the character of the log lead me to bring out the beauty of its colorful grain and core. I tried to form interesting sweeping shapes that portray and enhance the strength and solidity of the log’s mass.
Twisted Sister (1977)
Twisted Sister. Cherry. Pine Run, New Jersey. 1977. Not influenced by E.T. (which it predated). This cherry tree trunk contained knots that became integrated into the sculpture. I opened up a space between two legs, which curved asymmetically to define an interesting negative form. On one leg surface, I created a relief based on Indonesian sculptural traditions.
Atomic Power (1983)

*Atomic Power.* Cyprus. Philadelphia. 1983. This slab from a large tree was found in a dump of tree trunks, cut down by the City. I refined the outline of the slab and poked a hole surrounded by carving marks.
The Owl of Minerva (1995)

The Owl of Minerva. Redwood. Niwot, Colorado. 1995. Influenced by Hegel. I enjoyed carving 4x4 redwood posts left from the deck of our Colorado house—easy to carve, retaining good edges, sanding smoothly, acquiring beautiful color when oiled and revealing strong, broad grain. Here, I not only opened a space between twisting legs, but also a large negative space at the head, drilling all the way through to form an eye. Gift to Alan.
Female Torso (1995)
Female Torso. Cottonwood. Niwot, Colorado. 1995. Influenced by Bliss. A first attempt to represent a figure realistically. The sense of 3-D proportion was achieved primarily by the sense of touch.
Common Senses (1996)

Boulders (1996)
Boulders. Redwood. Niwot, Colorado. 1996. Influenced by boulders in a mountain stream. Again, using redwood 4x4, but this time two pieces joined together to break out of the 4x4 limits.
Bird in Flight. White oak. Philadelphia. 2012. Based on Brancusi metal sculpture. This and the following pieces are discussed in the section below on “Creating a Set of Oak Sculptures.”

Gift to Rusty.
Lap Sculpture (2012)

Feminine Twist (2012)

Hermaphrodite (2012)

A Sly Eye (2012)
Spirit of Cape Cod (2014)

Upright Cherry Figure (2014)

*Upright Cherry Figure*. Cherry tree trunk from Tim. Philadelphia. 2014. Delivered by truck ride from Michigan to Boulder in 2002, but not carved until 2014.
Cycladic Baby (2015)

Valdivian Owl in Tree (2017)

Hickory Bivalve (2017)

Hickory Bivalve. Hickory wood from Philadelphia front yard. Chatham. 2017. This was from a solid log, dried for a decade and then extensively opened up with deep cuts and penetration of the core. Exhibited at 2018 Members Show, Chatham Creative Arts Center.
Mrs. Mayo (2018)

_Old Mrs._ Bradford pear wood from Mayo House yard in Chatham. Chatham. 2018. Maximally opened up with openings going throughout the mass. Exhibited at the 2018 Members Show, Chatham Creative Arts Center.
Sarasota Sea Shell (2018)

Long Bird in Flight (2018)

Works of 3-D Form

Bite of the Apple (2019)

Sea Goddess of the Cape (2019)

Hinged Forms (2019)

Return of the Osprey (2019)

Angel of Progress (2020)

Saddle Curve (2020)

Pod (2020)

Reclining Man: Holes (2020)

2. Ceramics: 3-D Form from Clay

Ceramic Sculpture

Bone sculpture, free form sculpture and pointy figure. First ceramic sculptures I did at my first pottery studio session in Yarmouth near Chatham. Later, coffee “mugs.”

Once I started to create ceramic pieces, I did several exploratory series:

- Paleolithic and Prehistoric Figure Series
- Pre-Columbian Figure Series
- Giacometti Studies Series
- Negative Structures Series
- Figurative Modeling Series
- Facial Portrait Series
- Sea Forms Series

They are documented in the following sections.
Model of Moore’s *Reclining Figure: Holes* and model of *Choemool*. Small models I did at home, using self-drying red clay that does not need to be fired.
Detail from *Selfie.*

Detail from *Klein Bottle,* constructed from clay coils, with colored underglaze.
Sculptors can learn a lot by creating studies of works of other sculptors, including from historical eras and other cultures. I found it particularly interesting to reproduce several of the earliest known sculptures. These are carvings in bone or stone, usually representing women, often pregnant. The carvings are impressive accomplishments, probably reflecting cross-generational communities of skilled carvers, perhaps women.
*Venus of Laussel Relief.* The original “Venus of Laussel” is a limestone bas-relief of a woman with the moon, marked off to count the lunar cycle. Carved on a cave wall and painted with red ochre.
Venus of Willendorf. Original carved c. 30,000 years ago, from an oolitic limestone that is not local to the area.
Tübingen Venus. The Venus of Hohle Fels (also known as the Venus of Schelklingen) is an Upper Paleolithic Venus figurine made of mammoth ivory 40,000 and 35,000 years ago, at the very beginning of the Upper Paleolithic, which is associated with the earliest presence of Cro-Magnon humans in Europe (where they mixed with Neanderthals).
Cycladic standing figure. Original carved in marble c 4,500-7,000 years ago on the Greek islands.
*Athena.* Sculpted in clay.
Pre-Columbian Figure Series

During my travels over my lifetime I collected sculptures, especially pre-Columbian reproductions from Latin America.

On the right are some I collected. On the left are some of what my family called “originalis,” small clay figures based on Aztec or Mayan sculptures. On the left, an Olmec head that Carol won playing tennis during our honeymoon in Veracruz and a Chacmool that my mother brought me from Mexico.

Following are a series of ceramic sculptures that I did (lower shelf) based on these (upper shelf) and other pre-Columbian figures in 2019.
The ancient ceramic pieces were made principally using coils and I noticed how small coils could be used for eyes and mouth. I also began to experiment with decorative finishes on my pieces, inspired by the Latin American cultures. I sometimes referenced their love of gold, jade and turquoise. As I read about pre-Columbian sculpture and ceramics, I was increasingly impressed by the subtle planes of facial images: the eye muscles and cheekbones were often modeled in graceful and expressive simplicity. Expression was conveyed more through decorative clothing and accessories than through facial countenance. I tried to adopt and adapt their sense of form and decoration.
Chacmool, Pre-Columbian Jug with Faces, Pregnant Mayan.
Olmec Head, Primitive Flat Face from Guerrero, Chilu Body, Large Veracruz Head.
Originali 1: Face, Triangle Head of Incense Burner, Mexala Axe Figure, Aztec Mask.
Nyarit Seated Man, Pregnant Vera Cruz Girl with Necklace, Pre-Classico Guerrero Figure with Holes, Cylinder Figure.
Giacometti Studies Series

After the pre-Columbian series, I did a series of studies based on Giacometti’s sculpture, especially his early cubist works. I read a lengthy biography of Giacometti, as well as books about other modern sculptors such as Rodin and Degas. I began to experiment with making plaster casts of clay pieces as well as working directly in plaster, as Giacometti did.
Study of Giacometti “Tall Figure.” Study of Giacometti “Torso.”
Study of Giacometti “Spoon Woman.” Study of Giacometti “Composition Cubiste.”
Study of Giacometti “Couple,” Study of Giacometti “Head.”

Study of Giacometti “Figure.”
Negative Structures Series

As discussed in the chapter below on “Space: Opening Up 3-D Form,” much of my sculpture is concerned with penetrating the mass (wood, clay, plaster) of matter and creating an interior space or negative form within the positive material forms. A series of explorations of such negative structures in ceramics resulted in several pieces, such as the following: *Slab Sculpture 1, Slab Sculpture 2, Slab Sculpture 3, Sculpture with Grog and Negative Structure.*
These ceramic works define spatial forms by creating structural boundaries or outlines. They open (create) space primarily by enclosing or surrounding it. Many of the spaces are cave-like, hinting at primordial cavernous living spaces. Complex spaces are interconnected within 3-D, in ways hard to visualize without the 3-D structure to see, feel and explore. The pieces combine surface texture, volume, internal space and structure. Technically, they are constructed to balance the constraints of clay strength vs. gravity and span integrity vs. the effects of shrinkage as the clay dries and is fired.
Figurative Modeling Series

My older sculptures were relatively abstract, non-figurative or non-representational. Although people liked to see animals and other things represented in the sculptures, for me they were primarily explorations of abstract 3-D form. However, once I began to work with clay and become more involved in learning about sculpture, I began to take classes and workshops in figurative modeling, that is, capturing the human body in whole or in part as realistically as possible.

I took courses on human portrait (the head), torso and full body. Some of these benefitted from live models. Most classes took place over multiple days at the Cotuit Center for the Arts, organized by Neil Grant.

The portraiture class helped me to see the structures of the human head: the bones of the skull, the muscles of the eyes and mouth, and the expressive flesh of people at different ages and engaged in talking or other behavior. After this class, I modeled a series of masks, presented in the next section.

The workshops on torso and full body were usually two days long. They also stressed the structures and forms of the primary layers of skeleton, musculature, flesh and skin texture. The first day involved roughing a figure in using clay on a simple wooden armature post. The second day refined the figure and its surface. Then the piece was hollowed out so it could dry without breaking from clay shrinkage and so it could safely be fired. In two days, I could not create a detailed and polished sculpture, capturing the many aspects of realistic representation. Instead, I aimed at quick
studies, which caught the primary forms and retained a rough surface reflecting the working of the clay.

The figurative works of reclining models and torsos complemented my other explorations of seated figures, such as Reclining Figure: Holes Model, Chacmool, Pregnant Mayan and Nyarit Seated Man.
Irina Portrait

Sculpted bust of Irina in clay. Two-day course on realistic portraiture, with live model. April 2018. Completed in May, Fired in June.
Female Torso

Chatham Sunbather

Torso of Tony

Seated Figure

*Seated Figure of Tony*. White clay. Cotuit. June 2019. Discarded when it broke during drying. Created during a two-day long pose.
Suzanne Figure

*Suzanne Figure.* White clay. Two-day long pose with live model. July 29 & 30, 2019.
Nicole Torso

Irina Torso

Nicole Reclining Figure

Nicole Reclining Figure. White clay. Two-day long pose with live model. Cotuit. November 2 & 3, 2019.
Facial Portrait Series
Irina Portrait

Sculpted bust of Irina in clay. Two-day course on realistic portraiture by Neil Grant, with live model. April 2018. Completed in May, Fired in June.
Ruby at 2

Self-portrait: Keynote

Ruby and Grandpa relating.
**Nietzsche Mask**

Einstein Mask

Ora Asleep

Mask of *Ora Asleep* at 2 weeks old. From an Instagram photo. January 2019.
Mask of *Ora Awake* at three weeks old from a photo. February 2019.
Portrait of Giacometti

Eight Ceramic Mask Selfies

These eight self-portrait masks were made in Fall 2019. First, Bob Marcus helped me make a life-casting mask of my face from a kit. From the temporary mask, I made a plaster mold. Then I pressed a slabs of clay into the mold and used the resulting curved forms as bases for modeling the clay selfies.

It is hard to capture a personality in a mask because a person’s unique bone structure and muscle configuration changes continuously as they speak and move. The expressive muscles around the mouth change the most, but the eye muscles, smile wrinkles and cheek bones also shift significantly.

So, I tried to make a series of masks with different expressions and sculptural techniques. I took pictures of my face in the mirror as my model.

I experimented with different ways of representing 3-D facial features. For instance, Rodin created undulating waves that seem to press outward from the interior of the work. Giacometti amassed small, indistinct bits to define human forms without recreating smooth surfaces in order to just provide an impression of the form as seen ambiguously from a distance. When I fired the pieces, I sometimes used colored slips to add color to the white, brown or reddish clay.
Josiah Mayo

Josiah Mayo was the postman of Chatham. He lived in a house that is now the office of the Chatham Conservation Foundation. The log for Mrs. Mayo came from a pear tree in front of that house. The mask is based on a painting of Mr. Mayo that hangs in the house.
William Nickerson founded Chatham. He built the first colonial house and settled his family there. The site of his house was excavated in 2017-2019 on property now owned by the Chatham Conservation Foundation. The mask is based on a painting of William Nickerson.
Sea Forms Series

Since I live by the ocean now, I am interested in exploring natural shapes in forms from the sea.

Seashells fascinate me. They come in complex and beautiful forms, which are grown by strange organisms (clams, oysters, etc.) and are often adopted by other organisms (such as small crabs) when their original creators outgrow them.

I carved some long, twisting forms based on seashells I found on the beach.

This is a sculpture I did in clay, modeled on a smaller bone from the beach, probably a seal’s spinal disk.

Ocean waves are the results of complex interactions of water rushing in different directions as well as the slope of the shore floor. Waves roll in to the beach relentlessly and rhythmically. They are calming to hear and watch, in their repetition, endless variety and perpetual motion. Standing on the shoreline, one can observe the water from the last wave rolling back into the sea, where it is met by and overpowered by
the next wave rushing in. The under and over flowing of the opposed movements create the breaking wave front. The interaction is so fluid and quick that it is hard to follow. Sculpture of a wave front can strive to capture and freeze this ceaseless motion.

Waves on the shore of the Nantucket Sound at Ridgevale Beach, Chatham.

I tried to capture the gentle and repetitious flow of waves in my first furniture carvings on Cape Cod.
Waveforms carved in cherry live edge on living-room mantel and TV table.

A series of waves on our headboard.
Plaster cast of horseshoe crabs and shells from Ridgevale Beach in Chatham.

A diorama glimpse of the future: Survivors of the Current Extinction.
Sunbathing on Ridgsvale Beach.
Pottery Classes

My Mother’s Pottery

As a young child, I learned to throw and hand-build pottery. My mother, Evelyn, had a kick-wheel and kiln in Trevose.
Pottery Class #1

Six-week course on wheel throwing and glazing. December 2017. With Holly Heaslip at the Yarmouth Cultural Arts Center.

Threw and glazed 7 cylinders: 4 cups and 3 small bowls.

Hand built 4 small ceramic sculptures and 2 pill trays.
Six-week course on wheel throwing with handles and spouts. January/February 2018.

Threw and glazed 7 cylinders: a jug with spout and braided handle, a mug with 4 handles. 4 containers and 2 ring dishes. Hand built a mask.
Pottery Class #3

Six-week course on wheel throwing with lids. April 2018.

Threw and glazed 14 pieces: a cup with a nose and handles, a cup with eyes, a vase with an under dish, a bowl with a lid, 8 other bowls. Hand built a ring dish and a platter.
Pottery Class #4

Six-week course on wheel throwing and hand building. May/June 2018. At Chatham Creative Arts Center with Ron Dean.

Threw and glazed 6 cylinders, bowls, jugs. Hand built a sculpture.

Pots in class.

Slab 1 Sculpture.
Pottery Class #5

Six-week course on wheel throwing and hand building. July/August 2018. At Chatham Creative Arts Center with Ron Dean.

Hand built masks of Nietzsche and Einstein.

Pots and sculptures.
Pots in class.

*Slab 2* sculpture.

*Slab 3* sculpture.
Pottery Class #6

Six-week course on wheel throwing and hand building, Sept/October 2018. At Chatham Creative Arts Center. Threw and hand built 11 pieces.

Pots and Negative Structure sculpture.
Pottery Class #7

Six-week course on wheel throwing and hand building, November/December 2018. At Chatham Creative Arts Center. Threw and glazed 16 pots. Hand built 21 sculptures (see pre-Columbian series).

Bonzai sloped pot. Gift to Zake.
Pottery Class #8

Six-week course on wheel throwing and hand building. April/May 2019. At Chatham Creative Arts Center. Threw and glazed 6 pots. Hand built 8 Giacometti sculptures and cast them in plaster (see next section).
Pottery Class #9

Ten-week course on wheel throwing and hand building. Sept/Nov 2019. At Chatham Creative Arts Center. Threw and glazed 6 pots. Hand built *Klein Bottle* from coils and fired eight self-portrait faces and nine other sculptures.
Casting in Plaster

Inspired by Giacometti’s plaster sculptures and casts, I decided to try sculpting in plaster and making plaster casts of clay sculptures. Of course, sculptors primarily cast their sculptures to preserve them and to make multiple copies for sale. Casting in bronze goes back to prehistory. Plaster casting is a less expensive and complicated alternative. Today, there are many plastic and resin options as well.

Even before reading about Giacometti, I had started to use plaster and to make some simple casts with hints from local sculptors (Neil Grant, Hiram Ball and Bob Marcus). As an aid to my series of masks, I made one-piece casts of a model skull in clay and I made one-piece clay molds of my Nickerson coins. I also made simple casts of my masks of Ruby and Ora for distribution to relatives.

When I did the studies of Giacometti, I had to create completely three-dimensional molds, rather than the one-sided forms for the masks. I started to use EZ-Mix 40 urethane rubber for the molds and eventually Free-Form Air for two-piece mother molds to hold the molds during casting. I switched from plaster of Paris to Hydrocal, a stronger form of plaster. The EZ-Mix 40 liquid rubber was painted onto a clay sculpture, which had been waxed as a release. When the rubber hardened, the mold had to be slit to take out the sculpture. The mother mold was designed to hold the slit closed, but that was tricky in practice. I took a four-day course on mold making and then made three more successful molds at home.

These are the three plaster casts that emerged.
Here is my portrait of Giacometti. Behind it is the blue rubber cast with the jagged slit for removing the cast and the gray mother-mold that holds the flexible mold in place during the pouring of the liquid plaster.

Many of Giacometti’s sculptures decayed and crumbled in his studio. His brother, Diego, made molds and plaster casts, which saved many sculptures. I can see how this was important, as several of my studies of Giacometti also broke, and the plaster casts were a way to preserve them. Giacometti cast his clay sculptures in plaster and eventually in bronze for sale. He did not fire the clay because he usually worked on metal armatures to support the clay.

I customarily fire and sometimes glaze my clay originals. I often paint the plaster casts to look gold or bronze. Here are my casts of the Pregnant Mayan, Tony’s Torso and my portrait of the artist. Other casts are shown in the section on Giacometti Studies and in the Catalog.
Here are two plaster casts of my study of Giacometti’s “Tall Figure.” One is painted bronze.

In addition to creating a bronze appearance with metallic paints, I tried “cold casting” my Portrait of Giacometti. This involves mixing powdered bronze metal into the top coat of the black epoxy used for casting.

Other casts of my studies of Giacometti’s early cubist works follow: his “Head,” “Couple,” “Torso” and “Head.”
Cold Casting in Bronze

After a busy season with clay and plaster casts, I finished 2019 by returning to wood carving, completing *A Bite of the Apple, Sea Goddess of the Cape, Hinged Forms* and *Return of the Osprey*. I then took a break from sculpture, including two months in Florida. I returned home in the midst of the Coronavirus pandemic.

Without access to a kiln, I decided to focus on cold casting bronze, as I had attempted with the bust of Giacometti. I had in mind reproducing two sets of my clay figures:

- A historic series in honor of the 400th anniversary of the Pilgrims landing on Cape Cod, with the Nickerson coin, the mask of William Nickerson and the mask of Josiah Mayo.
- A series of prehistoric women: *Venus from Tubingen, Venus of Willendorf, Venus Relief, Larger Cycladic Figure* and *Athena*.

I acquired some new casting materials from the closeout of Hiram’s studio. I made the molds using Rebound 25, a flexible rubber material. I made mother molds from Free form Air, to hold the molds during casting. I cast using SmoothCast Onyx Slow, a black plastic, mixing in 1/3-part bronze filings. To bring out the bronze sheen, I rubbed the castings with steel wool and sprayed on a transparent finish or waxed them. I also used Smooth-On 325, a casting material I had used for the *Portrait of Giacometti* and the first set of bronze coins and bronze masks.

The coin molds and mask molds were simple one-piece open molds. I poured the liquid casting mixture into the mold and swished it around to cover the surface to an adequate depth. I mounted two sets of the coin inverse and reverse for display, as well as the masks of Nickerson and Mayo. These were for display at the Mayo House and the Nickerson Homestead exhibitions. I also cast bronze copies for myself.
Bronze cold casts of the Nickerson coin, Mayo mask and Nickerson mask mounted on oak for display.
The oak tree symbol on the *Nickerson coin obverse*.

The date and VI Shilling mark on the *Nickerson coin reverse*. The coin was discovered at the Nickerson homestead archaeological dig in 2018.
Close-up of *William Nickerson* mask. Nickerson founded what is now Chatham, purchasing the land from the indigenous natives and building his homestead there. Close-up of *Josiah Mayo* mask. Mayo built the Mayo House, which is now the office of the Chatham Conservation Foundation, where I am Board Treasurer.

Cast of the *Wink* 2 of 2 in Smoothcast Onyx Slow casting mixture without bronze.
The historic series was more problematic. It turned out that the clay I had used for *Venus of Willendorf* and the *Venus relief* was incompatible with the mold material, so they bound together and I had to discard the original sculpture along with its mold.

The *Venus from Tubingen* casting did not work well; it came our covered with sticky black liquid from the casting mixture I made round bases for the original and casting of the *Venus from Tubingen* using Smoothcast Onyx Slow casting mixture without bronze, to support them on their small legs.

*Venus from Tubingen*: cast and original on bases.

I was able to make bronze cold castings of the *Larger Cycladic* figure—one transparent with no bronze powder and one partially collapsed bronze.
Larger Cycladic Figure cast in bronze and cast transparent.
I made several copies of *Athena*. This female torso looked good in bronze. I switched to using Smooth-On 325 for these, mixing in the bronze powder. I was able to make four successful casts of *Athena*, one of just transparent Smooth-On 325 (painted with a dark bronze paint) and three with bronze mixed into Smooth-On 325.

*Athena* bronze cold casts: 1 of 5 (gift to Rusty); 4 of 5 (gift to Zake); 5 of 5 (gift to Carol). Not shown: 2 of 5 was an unsuccessful cast and 3 of 5 was painted.
Original and five casts of *Athena*. 
I also cast another bronze of my *Portrait of Giacometti*. 

*Portrait of Giacometti* 2 of 2.
Photography of Ceramics and Sculpture

Sculpture is famously difficult to photograph. Of course, one problem is that you cannot capture much of a 3-D form in a 2-D medium. But in addition, the subtleties of the surface are tricky to reproduce. Lighting, shadow, highlights, etc. are important in bringing out the three-dimensionality, depth and surface texture.

With advice from photographer Brown Bergen, I bought a camera with good control of depth of field (F-stop) and experimented by taking many of the photos in this book, especially for the pieces created in 2019. I also bought a set of photography lights and backdrops. I set up a photography area in a dark part of the basement so I could control the lighting.

One thing I tried to do was capture the depth of my attempts to “open up” the mass of my wood and ceramic sculptures.
3. Architecture: 3-D Form for Living

A Home in the Desert

Front of the house Carol and I lived in in Colorado from 1997 to 2002. We designed the house with Randy Hartman, an architect/builder who specialized in Southwest style homes.
The rear deck of the house in Niwot, Colorado, outside of Boulder and at the foot of the Rockies. We landscaped it with native plants.

For a discussion of the design of the house, incorporating elements of Christopher Alexander’s *A Pattern Language*, see:

http://gerrystalh.net/personal/recreation/designing/index.html and
http://gerrystalh.net/publications/ideas/pattern.html

For more views of the house, see:
http://gerrystalh.net/personal/recreation/home/
A Home in the City

Front of the house in Philadelphia where we lived from 2004 to 2015.

The back yard with pond in Chestnut Hill, Philadelphia. We renovated most of the interior of the house. The pond and landscaping were created by previous residents.
A Home by the Sea

3-D model of plan for Chatham house in Sweet Home 3D software. 2015.
Floor plan from 3-D model for main floor. 2015.

Elevation from construction plans. 2015.

For documentation of the construction and other details, see: http://gerrystahl.net/personal/recreation/house/
Year one at Chatham. Winter 2016.

Year 2 at Chatham. Landscape phase one is done. Summer 2017
Winter 2017.

Year 3 at Chatham. Landscape phase two is done, integrating the woodlands into the cleared space. Summer 2018.
Shaker Bench

Desk for Zake’s High-School Bedroom

Bench for Deck

Z End Table

Z End Table. Cherry wood. Two-inch thick boards laminated, bolted and epoxied. Chatham. 2016. Hwd: 26”x34”x16”.
Octagon End Table

Octagon End Table. Cherry tabletop laminated with red oak legs. Chatham. 2016. Hwd: 25”x23”x23”.
Octagon Library Table

Octagon Library Table. Red oak and mahogany legs. Chatham, 2016. Hwd: 22”x14”x14”.
Shelves for Bathtub

Octagon Stool

Octagon stool. Red oak. Chatham. 2016. For lighthouse lookout room. Hwd: 12”x20”x11”.
TV Table

*TV Table.* Cherry wood top incorporating section of live edge remaining from mantel in living room. Mahogany legs. Chatham. 2017. Hwd: 24”x62”x24”.
Studio Ceramics Worktable

Table for Wilma & Jeb

Bench for Ruby

Built-in House Fixtures

Mantel above stone fireplace. Supported by corbels. Turning corners to cover all four sides of hearth in center of house.
Living-room Mantle

The live edge delivered in workshop.

Curves carved into live edge.
Carving the edge.

The four sides of the mantel, cut and carved.
Starting in the kitchen.

Turning out of the kitchen.
Turning into the living-room above the fireplace.

*Mantel.* Cherry wood. 2¼” live edge. Sawed into 4 lengths to go around the fireplace. Carved on site. Supported by 6 corbels carved in Philadelphia from dogwood and hickory trees on property. Chatham. 2015. Hwd: 6”x11”x244”.

Turning into the entry area.
Library Ship’s Ladder

*Ship’s Ladder.* Red oak with mahogany treads. Chatham. 2016. Hwd: 157”x20”x8”.
Photo Display Board

Display. Stainless steel sheet with magnets. Cherry wood frame. Chatham. 2017. Hwd: 64”x34”x1”. 
Headboard with Waves

Bookcases

*Philosophy Bookcases*

Library Bookcases
Library Bookcases. Three walls of shelves in library, second floor of lighthouse tower. Room is octagonal with sloping walls; no right angles. Shelves of red oak with supports of mahogany. Chatham. 2016. Three bookcases. Each hwd: 71”x53”x8”.
Study Bookcases

Basement Bookcases

4. Reflections: Philosophy of 3-D Form

Thoughts on Organic Form from Nature

Prior to retirement, I occasionally carved wooden logs. I followed the lead of the log and of my tools, producing flowing curves that brought out the beauty and sensuality of the wood, as it had grown within a tree. I felt a kinship to the sculptures of Henry Moore and learned about the abstraction of 3-D form from his masterpieces. As I became more involved in sculpture—including ceramics and plaster casts—I wondered increasingly about the role and nature of sculpture in today’s world, given the developments in the field during my lifetime. This chapter presents some of my reflections on that question.

Historically, organic sculptural form was often associated with representation of the bodies of humans and animals. The invention of mechanical reproducibility with photography and video not only changed the aura of those works (according to Benjamin), but also questioned the role of realistic likeness in sculpture. Modern European sculpture transitioned from realistic representation to more abstract study of 3-D forms in the oeuvres of Rodin, Brancusi, Degas, Giacometti, Moore, etc. That transition period in the history of sculpture by the generation or two before me has appealed to me more than subsequent developments, like metal constructions of geometric or industrial forms, experiments with high-tech materials, environmental happenings or pop-art plays on everyday artifacts.

As this book documents, I have explored a delimited range of possibilities of 20th and 21st century sculpture. This included studies and reproductions of ancient sculptures, including the earliest known human examples: Paleolithic, Cycladic, pre-Columbian and modern masterpieces. I took courses on realistic sculpture of the human body and used live models for portraits and torsos, to develop and understand the techniques involved and to study the forms. The idea of “opening up” a log or lump of clay to create negative as well as positive forms and spaces is one specific direction that I have pursued.

The Working of a Work of Art

Art—in contrast to objects of daily utility—functions to make our world visible, tangible and sensuous. It opens up the working of the works of art. One wants to
explore, touch, move around and contemplate pieces of sculpture in ways one rarely interacts with other objects. Everyday objects are simply present for use in actions that are focused on action goals; we tacitly exploit these objects as mere subservient means, paying little heed to their inherent qualities.

**Space is the Place**

Works of art draw attention to themselves, rather than to some other realm. They stand out in the everyday world by creating their own space. Space is an unobserved structure that is normally taken for granted or abstracted as a simple mathematical configuration or empty volume. We move through space and glance through space without explicitly perceiving the space itself. Every physical object takes up a space, which it defines by the volume within and around its surface. By displaying itself as a visual object, a sculpture can make visible the space it fills and the space it opens up around itself. It is even possible for a sculpture to be designed to open up spaces within the positive forms of the sculpture’s material, creating *negative spaces*, which can themselves become centers of focus.

**Making Reality Visible**

Objects from different realms have different forms. Sculptures can make these obtrusive and perceptible. Architecture (which was originally inseparable from sculpture) can both construct and reveal the spaces within which humans reside. Pop art makes the character of everyday, taken-for-granted commodities noticeable. Forms of the sea and sea life differ from those of the land; sculpture can contrast these forms. Scale—which sculpture can play with—also makes a difference, bringing out details, relationships and spaces that are hidden on accustomed scales.

**Mass Production**

Manufactured objects today are commercial commodities, explicitly designed for easy mass production by automated machinery, and mass produced with standardization for universal assembly. They have flat, 2-D surfaces, following simplistic mathematical shapes. They are efficient to fabricate by machine and are interchangeable for economical exchange on the global commodity market. They are derived forms of abstract value, not specific to any characteristics of origin, setting or intended application.
Natural Evolution

Organic forms, by contrast, evolve in response to their immediate environment. Their form follows from their uniquely situated function: a tree’s limbs bend to allow their leaves to capture sunlight in their particular setting, and a bird’s bones are shaped to provide strength and mobility with minimal weight and mass. Such conditions of growth result in flowing, but unique and complex formations, with parts that support distinct functions connected by transitional forms, which flow into each other, rather than simply butting up against each other and requiring connectors. An organism consists of an integrated formation, with specialized forms merging into each other. Organic sculpture can aim to capture such structure in ways that display it to an observer’s senses.

The Manufactured Environment

In a philosophic passage, I once wrote that my sculptures are responses to the artificial character of the contemporary synthetic environment. The urban setting consists of plastic and concrete structures manufactured with homogenous materials and uniform geometric shapes, rather than with the organic forms of nature. Technologies of manufacture have imposed these rigid, flat, symmetric shapes that are totally controlled by their makers and machines. These shapes are simple and instantly understood by observers, so they fade into the background of assumed second nature, rather than provoking attention.

In the twentieth century, several sculptors explored biomorphic abstraction, which features the subtle, flowing forms of nature in contrast to manufactured designs. These sculptures have always appealed to me and inspired my own efforts. Perhaps the biomorphic approach complemented the mathematical paradigm, which dominated my professional life in computer science.

Organic Form

My sculptures are not ahistorical; not the result of some primordial experience of self-consciousness interacting with unmediated nature. They are late-twentieth-century and early-twenty-first-century explorations of form and material. In them, organic three-dimensional forms are showcased to contrast with socially prevalent two-dimensional representations and with the geometric shapes produced by automated machinery. The inherent characteristics of the materials of nature are brought forth, in contrast to the artificial plastic substances that retreat from our consciousness in commodities. Furthermore, the usual pragmatic representational function of semiotic objects is overcome in the study of their abstracted physical forms and materiality. In
negating and surpassing (Hegel: “Aufhebung”) the commonplace characteristics of signs—which point away from themselves—the non-representational sculptures obtrusively confront their creator and viewers with the nature of the artifact itself as intentionally formed material object. Not representing some external subject, they point to themselves.

**Biomorphic Form and Cubism**

Biological organisms have evolved over eons to integrate multiple organs. Each organ has its distinctive function. The structure of the organism unites its constituent organs together into a smooth functioning, creating a higher-level formation. Analogously, a complex sculpture can integrate multiple 3-D forms, which complement or contrast with each other. Different faces of a particular mass can assume forms at tension with each other. A successful sculpture unifies its many sub-forms into a coherent structure. My wood sculptures tend to be biomorphic, adopting 3-D forms similar to biological organisms.

Cubism tried to capture multiple perspectives on an object simultaneously. As works of 3-D form, sculptures embody multiple perspectives when viewed from shifting angles. Cubism freed the arrangement of parts of a given object—such as organs within an organism or body—and sculpture can adopt that freedom by displaying parts of a body selectively according to a unity of the sculpture that differs from that of its model. The structure of the sculpture represents selective aspects and arrangements of its model, while presenting its own structural form, its re-integration of formal elements.

A sculpture may integrate subparts at multiple levels. A complex form like *Return of the Osprey* may have numerous parts, each of which forms an organism of 3-D forms flowing into each other. It may take a viewer some time and effort to explore the sculpture at different scales and viewing angles.

Rodin’s dynamic human poses and Degas’ dancers make visual and haptic the structural potentials of the human body, with its joints and musculature. They often exceed or exaggerate the possible poses, combining specific perspectives and consecutive views slightly out of time. There is a tension between the model and the sculpture, in which post-photographic realism extends what is possible in the literally represented original.

**Rodin Working on Works**

In his book on Rodin, Rilke emphasized the creation of “*works*” as a driving force for Rodin. The ephemeral work on sculptures was often more important than the
persistent sculptures that resulted. The resultant sculptures were always somehow inadequate; the problems that had been pursued in them were not completely or satisfactorily solved; it was hard to say when a given piece was finished—except by noting if it had been signed in preparation for sale. Rodin lived above all to engage in his sculptural work.

Degas never exhibited or sold his sculptures, except for “The Little Dancer.” He did not cast them, but simply worked on them in his studio for their own sake, as explorations of the possibilities of sculpture and the potentials of human bodily movement through space. Similarly, Giacometti was driven to work and re-work his pieces endlessly, searching to capture his vision, rather than to produce finished pieces. The important thing is the working that goes into the work, rather than the resultant object, which captures and preserves the working. Rodin, Giacometti and Degas all liked to come back to old pieces and re-work them—undercutting the sense that works were ever final, that they were no longer subject to working.

In my recent involvement in sculpture, my days often revolve around an agenda of working on some current piece. The point is not so much to produce yet more objects, since I am not selling or using the resultant products. The point is to engage in the work, explore a sculptural or technical problem, re-discover what some other sculptor found in creating something that inspired me. The working is more important than the work, which drives and results from the working.

**Degas’s Dancers**

Sculpture can display the structure of objects, rather than just their surface appearances and attributes. Degas’ dancers, balanced instantaneously on one leg, capture the ephemeral structure of a ballerina’s motion through space around a center of gravity. The placement of the ballerina’s feet and the twist of her torso reflect slightly different moments in time and thereby imply and capture motion, like the subtly superimposed feet of Degas’ galloping horses, caught impossibly in mid-air.

Although Degas’ sculptures, like “Grand Arabesque,” represent the human form realistically, they are freed from traditional conventions to centrally incorporate space, void and motion by allusion. His fleshed-out female forms begin to act as structural indications of space, with limbs reaching out in every direction. Dance suggests the flux of time, in which Degas’ figures unfold from one study to the next in growing configurations of space and figure integrated. Degas thereby defined the transition from representation to structure in the history of sculpture according to Charles Millard, Curator of the Hirshhorn, in his study of Degas.
Giacometti’s Plaster Sculptures

Giacometti’s emaciated plaster busts and human figures capture the core spatial existence of a man or woman. The irreducible residue of one of his female sculptures reduces her entire reality to being seen, according to John Berger, who feels that Giacometti created his plaster figures during his lifetime, for himself, as observer or anticipator of his future absence, his death, his becoming unknowable after occupying an un-shareable reality. We now take the place of Giacometti in looking at the tall woman, in her structure as a solitary presence.

Despite all the talk of Giacometti’s figures as representing existential alienation, his figures inevitably take up social and spatial positions in the shared world—with the many other plaster figures in his studio, with selected companions in exhibition collections and within spaces explicitly defined by their platforms, glass enclosures and metal cage outlines. Individual human forms are elements in composite structures.

The structures of Giacometti’s constructions prominently include spatial relationships, with the distances between plaster figures indicating social distances and their glances passing by and ignoring each other to accentuate the reduction to solitary individuals in communal settings. The spaces defined between figures, cages or platform edges create distance from the viewer, much as a painting’s chosen perspective does. Giacometti’s sculpture creates vacuum, starting from mass or plenum, according to Sartre—locating his friend’s work within the dialectical conceptualizations of Being and Nothingness. The radically reduced positive space of the sculpture projects negative space all about it, stretching out to the viewer and distancing the figure as alone and un-reachable.

I have been intrigued by the creation of space through configurations of matter and nothingness. Lived, meaningful space is not a mathematical manifold or Newtonian coordinate system, extending uniformly everywhere, absolute and independent of content arbitrarily located within it. Rather, it is a felt openness to being, projected around specific materials in concrete formations. Space contains objects, flows around them, opens opportunities for other shapes; it penetrates into gaps through and between the objects. The sculptural form opens up the space in which it appears and also in which it pointedly does not appear.

In my attempts to open up masses, such as in my recent ceramic constructions (see below my “Thoughts on opening up spaces”), I create structures that define intricate positive and negative spaces without covering up the surface or filling in the interior. One way to open up a space most effectively is to reduce the mass of the positive focal form to a minimum, as Giacometti did in his mature sculptures. For Giacometti, this approach corresponded to the character of human vision. He said he struggled to capture what his eye actually perceived, as opposed to what the mind constructs as a figure. Of course, his eye was uniquely trained by a lifetime of looking carefully at
models. Moreover, what he referred to as the mind was its preconceptions and stereotypical images.

**Realistic Sculpture**

I have recently been working on realistic sculptures of live models and from photos of people, especially human faces, including my own. Working from a live model is invaluable training for seeing the structures of heads and bodies. Standard techniques for creating masses and planes are also helpful in roughing in the 3-D forms. However, the rote representation of a subject using established techniques for reproducing some supposedly objective view of the subject is not considered an artistic process. For instance, using pointing machines in the baroque era to produce copies of living bodies was useful for some processes, like making copies of a sculpture, but less for creating the original work of art.

When we see somebody—not by staring at their facial image as at a photo—as part of interacting with them, we do not perceive a smooth manifold with standard features and manifold details. We see the person, the personality, perhaps as synthesized into a vague mental image of their general likeness.

Consequently, a sculptural representation of the person should not be a 3-D reproduction of their body, frozen at one instant. It should be something that projects their personality. That is the source of Rodin’s emotional movement, often distorting the surface in energized waves of vibration. Similarly, it is the person’s spatial presence, at its essential core in Giacometti’s structures, which resist being confined to precise and smooth appearances. These sculptures may not look “realistic” in the photographic sense, but the artists felt that they captured reality in a sculptural way.

The critic, Leo Steinberg, argued that realistic sculpture is important even after the invention of the camera, but not in a rote, technological sense. He claimed that “the eye is part of the mind,” that is, that

“technical capacity in imitation implies what no one seriously believes: that nature confronts man with a fixed, invariant look. We know better than that. Appearances reach us through the eye, and the eye is part of the brain and therefore inextricably involved in mysterious cerebral operations. Thus, nature presents every generation (and every person who will use his eyes for more than nodding recognitions) with a unique and unrepeated facet of appearance…. And if appearances are thus unstable in the human eye, their representation in art is not a matter of mechanical reproduction, but of progressive revelation.”

Works connected with discoveries of representation, purvey not given facts, but “the thrill and wonder of cognition.”

According to Steinberg, about half the great art generated by mankind—starting with Paleolithic art—is dedicated to the accurate transcription of the sensible world.
However, artists do so in particular ways, rendering their subjects according to available technologies, cultures, conceptualizations, predecessors and the gleanings of their own work. Standardized techniques for capturing likeness miss the to-be-interpreted character of the subject.

A modern photo can instantaneously reproduce the physical appearance of a subject at a specific moment. However, for instance in the case of a face speaking or a body moving, the muscles involved (with their accompanying prominences and shadows) are continuously shifting. The perceived appearance over a time segment posits the unity to these momentary stages. It is the interpreted unity that projects an underlying character or personality or motion or emotion to the subject. The challenge is to then represent in a 3-D form the subject’s character through this unity—rather than simply a photo-like snapshot picture. If “realistic” means aiming for the snapshot, then sculpture needs to incorporate the techniques of realism without setting them as the ultimate aim. The representational goal is, rather, to capture the personality that shines through the unity of the likeness.

Tutorials on realistic sculpture rightly emphasize procedures of building up from skeleton to musculature to flesh (fat and skin). These are the layers that conduct the body’s motion: the joints, the tendons and the masses. They are not static structures, but vibrant effectors of motion. As they shift and swirl, the body’s forms swell and ebb. Each individual’s figure is defined by its unique configuration of bones, muscles, fat deposits and skin wrinkles. As a person breathes, speaks and moves, this unique complex cycles through its characteristic topologies. The sculptor struggles to capture this through his eye, mind, body, materials, skills, techniques and style.

Eye and Mind

For the philosopher Merleau-Ponty, human existence is fundamentally embodied. Visual perception is the primary mode of perception of the human body. Vision is intimately integrated with our tactile sense, so that “the visible world and the world of my motor projects are each total parts of the same Being” (Eye and Mind).

Sculpture corresponds to this foundational unity of vision and touch. A sculpture leads the hand and eye across its surfaces, whether actually or in the perceiver’s imaginative projection. Unlike painting or even relief, the 3-D forms lure perception around the facing façade and into the sculpture’s depth. Although only certain shifting surfaces are visible at any given moment, the different perspectives possible from around the mass flow into each other, evoking and leading eye and hand and mind.

Sculpture explores the depth of objects in the world. While depth is merely implied in painting, through tricks of perspective and shading, for instance, it is explicit in the massing of 3-D forms. The sub-forms of a sculpture reference each other by overlapping and concealing—only to then reveal as one circumnavigates the
sculpture. As Merleau-Ponty puts it, “The enigma consists in the fact that I see things, each one in its place, precisely because they eclipse one another, and that they are rivals before my sight precisely because each one is in its own place.” As one successively perceives each facet, the previously seen planes recede into hidden but remembered depths. Each angle on the sculpture reveals new, unanticipated forms and integrates them into a felt 3-D whole, with depth in space.

The sculpture’s flow of curves and obtrusive features forms a surface, creating a boundary between the surrounding transparent space and the opaque internal mass. Depending upon the material of the sculpture, one may wonder about the nature of the interior. For instance, the hidden grain within a wood sculpture, its transition from outer to core wood, residues of its sticky amber sap, origins of its former branches and other organic vestiges of its growth may suggest mysterious structures of potential interest. The hardness of stone may challenge one to desire a glimpse inside and the homogeneity of clay might motivate an urge to break its impenetrability.

The dynamic of the observer’s perception of a work has its correspondence in the production of the work by the sculptor. The sculptor undergoes similar perceptual processes, possibly more focused, even conscious or reflective. The forms emerge in the work as the sculptor may attempt to bring out, structure and mold the perceptual effects. The material offers unexpected features and the sculptor’s work responds by enhancing or removing selected features to create interesting forms and an over-all work, with its effects of perceptual stimulation, motion, depth and space.

The successive stages of sculpting define forms at different scales, which may be compatible with each other. The selection of a particular log or a bag of clay; the roughing in of the log of the massing of clay; the construction of major forms or primary structural elements; the defining of flowing or rough surfaces; the refining of forms and surfaces; the finishing of surfaces with oil, glaze, paint, embedded elements; the mounting of the finished piece; lighting; photography; display.

As a sculptor explores and learns about specific material forms, he or she may try to render those discoveries visible and even dramatic in the work as a thing in the world.

**A Heideggerian View of Sculpture**

In his essay on “The Thing,” the philosopher of Being, Heidegger, considers the example of a jug, as created by a potter on a wheel. He suggests that the thingness of the jug is centered on its interior void, which can be filled with water or wine and can offer it for pouring and imbibing. But he does not describe how the jug comes to be what it is.

Learning to make pottery involves acquiring skills and knowledge to be able to produce jugs and other ceramic works that more or less fulfill that ability of a
successful jug. This has many aspects; creating a jug involves a series of phases: acquiring and preparing the clay, gathering the tools and equipment, centering the lump of clay on the rotating wheel, opening a void in the lump, pulling the sides up in several pulls without the sides collapsing, shaping the form (with the interior curve matching the exterior curve), partially drying the piece to give it strength, trimming the thrown piece and cutting a foot on it, gently shaping a spout that will pour without dripping, attaching a pulled length of clay for a handle that will fit a human grip and provide balanced lifting, slowly drying the clay without cracking, optionally adding design to the surface, firing the jug, glazing it and firing it again.

Each stage of producing the jug is an experiment and the final product is always somewhat of a surprise. One learns through years of practice how to control each phase and what one prefers as results of each stage. However, at most phases there is usually some interplay between one’s aims and the results. Generally, when one sees the piece as it is uncovered during the drying or when it comes out of the kiln, one is confronted by an object with its own character, and one must take up what one finds as the starting point for the next phase. As Hegel said, the worker is alienated from his product as it becomes an independent object existing in the world. There are so many variables in the clay, the wheel speed, the drying conditions, the pressure of the hands, the chemical reactions of the glaze and the work of the potter that one can only approach an ideal of control where one can produce something like what one set out to make. Such control takes considerable experimentation and practice.

Ceramic jugs are one of the oldest and most universal of human artifacts. Once humans around the world harnessed fire, they learned to make and “fire” (bake) useful and beautiful jugs. My study of pottery is part of my philosophic investigation of the nature of artifacts.

In *The Origin of the Work of Art*, Heidegger writes:

“Although it becomes actual only as the creative act is performed, and thus depends for its reality upon this act, the nature of creation is determined by the nature of the work…. To create is to cause something to emerge as a thing that has been brought forth. The work’s becoming a work is a way in which truth becomes and happens.”

The craft of the artist involves creating an object that opens up a *world* and reveals something (as discussed in my philosophy dissertation). This craft requires a dialectical back and forth between the artist’s inquiring over time and the successive revelations of the objects produced. The artist—akin to a philosopher or scientist—proceeds along a journey of inquiry, gradually revealing new truths through sequences of more-or-less insightful works. This is a historical process, in which the artist pushes his or her own previous inquiries further in specific directions, confronting issues that arose in past works and employing techniques that have been developed in previous inquiries, including by earlier artists. This involves mastering crafts, materials and
technologies of the past or of previous works. It involves posing specific problems to solve, and new directions to explore.

In his discussion of van Gogh’s painting, Heidegger generally misses its art-historical importance. He views the painting as purely representational of a peasant woman’s shoes. He misses the relationship to the impressionist revelations about light (and shadow) or van Gogh’s own exploration of brushstroke as an element of the materiality of paint.

The work involves a dynamic between revealing and concealing. As a work, a sculpture opens a special space around itself, structured by its 3-D form, which extends out of that space. The surfaces of the form are revealed, but they simultaneously conceal what lies below or beyond the surface: the interior of the wood, stone or other material. This dynamic that takes place at the surface of a sculpture is Heidegger’s notion of the “Riss,” which I always found to be the most obscure concept in his essay on art. I did not fully realize how Riss entails both the tearing conflict between un-concealing and re-concealing and also the design, outline or figure of the work, e.g., the surface form of a sculpture, which defines its shape while enclosing its interior.

Certain sculptures may attempt to open up the concealed interior—for instance by poking a hole into or through the surface forms, or by chipping away the smooth outer surface to expose internal material—and simultaneously to reveal the effort of carving the material by leaving traces of that human effort and procedure. Through such elements of the work’s design, the interior is opened up, but then simultaneously closed up along the new surfaces of the holes.

Negative form can be viewed as an effort to reverse what is concealed and what is revealed. In some sculptures, I have tried to reveal the space itself by simply outlining it or otherwise indicating it. In others, I have tried to open up the normally concealed interior space by providing just a structure to define it as a space, while leaving the interior—or at least the interior space—visible. One could consider Giacometti’s thin plaster sculptures to be presenting just the interior of a figure, absent the usual concealing layer of fat and skin. (See my Study of Giacometti Tall Figure in contrast to my Chatham Sunbather or Tony’s Torso.)

The work of art is also a communication between the creator and the observer of the work, an attempt to guide the viewer/preserver to see what the creator has made visible in the work. As Heidegger notes about viewing art, “Preserving the work does not reduce people to their private experiences, but … grounds being for and with one another as the historical standing-out of human existence in reference to un-concealed-ness.” Thus, the work functions to build historically situated inter-subjectivity, grounded in the work.

A work of sculpture brings some thing into the world, opening up a space for it to do its work in its historical social setting.
Pre-historic Sculpture

Like every cultural tradition, sculpture is an on-going conversation across generations of practitioners. Art is considered a characteristically human mode of expression. Sculpture as 3-D form takes its place along with 2-D drawing or painting, music, dance, and other art forms. Particularly since communication was established globally, artists in one part of the world have been influenced by exemplars of art from other places and times. For instance, it is now possible to see paradigmatic samples of art from the primary stylistic epochs and principal world regions collected next to each other at major museums.

I have been interested in prehistoric and non-European sculpture, particularly during my travels to the countries where these were created. Sculptures from non-technological cultures are often quite abstract, in the sense that they abstract away from details and capture larger forms in a stylized way. This abstraction may be attributed to the limitations of the sculptural materials (bone, stone, clay) and tools (hand, sharpened rock) or to cultural traditions or to some innate human mode of observation, thought and expression. One can learn much from these works. I was astonished at the extent to which the oldest known sculpture of the human figure teaches you when you try to duplicate it and was delighted by how the earliest Latin American carvings do so as well.

In my own sculptural attempts, I have often tried to follow the lead of historic (or pre-historic) examples. By mimicking their forms in my own way and in my own materials, I have been inspired and gained insight into 3-D forms.

The Tübingen Venus

The Venus of Hohle Fels is an Upper Paleolithic figurine dated to between 40,000 and 35,000 years ago. It is one of the oldest undisputed examples of figurative prehistoric art.

This figurine of a voluptuous woman carved from mammoth ivory and excavated from a cave in southwestern Germany is the oldest known example of 3-D or figurative representation of humans, and sheds new light on the origins of art.
Four views of the Venus of Hohle Fels. The figure is about 2 ½ inches tall (slightly larger than the picture here).

The intricately carved headless figure is at least 5,000 years older than previous figurines and dates from shortly after the arrival of genetically modern humans in Europe. It exhibits many of the characteristics of fertility, or Venus, figurines carved millennia later.

It was found in southern Germany in the Danube valley, the migration corridor for modern Homo Sapiens into Europe. The figurine’s site was successively and repeatedly home to both Neanderthals and Homo Sapiens. This raises the possibility that such figurative art arose through the confrontation or intermixing of these two humanoid species. There is no evidence of art in the culture of the Neanderthals, but also no art like this in the culture of Homo Sapiens until they left Africa and met the Neanderthals. It is now known that the two species met and even mated, although the nature of their relationship in general is controversial. The theory that Homo Sapiens violently eradicated the Neanderthals is currently doubted. The Neanderthals existed for much longer than Homo Sapiens has, survived the ice age and exhibited many skills. Art always thrives in cultural mixing pots.

The Venus of Hohle Fels shows a range of entirely unique features as well as several characteristics present in later female figures. The Venus lacks a head. Instead, an off-centered, but carefully carved ring is located above the broad shoulders of the figurine. This ring, despite being weathered, preserves polish suggesting that the figurine was worn as a pendant. Beneath the shoulders, which are roughly as thick as they are wide, large breasts project forward. The figurine has two short arms with two carefully carved hands with visible fingers resting on the upper part of the stomach below the breasts.

The Venus has a short and squat form with a waist that is slightly narrower than the broad shoulders and wide hips. Multiple deeply incised horizontal lines cover the abdomen from the area below the breast to the pubic triangle. Several of these
horizontal lines extend to the back of the figurine and are suggestive of clothing or a wrap of some sort. Microscopic images show that these incisions were created by repeatedly cutting along the same lines with sharp stone tools. The legs of the Venus are short and pointy. The buttocks and genitals are depicted in more detail. The split between the two halves of the buttocks is deep and continues without interruption to the front of the figurine where the vulva is visible between the open legs. There can be no doubt that the depiction of oversized breasts, extenuated buttocks and genitalia result from the deliberate exaggeration of the sexual features of the figurine. In addition to the many carefully depicted anatomical features, the surface of the Venus preserves numerous lines and deliberate markings.

Many of the features, including the emphasis on sexual attributes and lack of emphasis on the head, face and arms and legs, call to mind aspects of the numerous Venus figurines well known from the European Gravettien, which typically date between 22,000 and 27,000 years ago. The careful depiction of the hands is reminiscent of those of Venuses including that of the archetypal Venus of Willendorf, which was discovered in 1908. Despite the far greater age of the Venus of Hohle Fels, many of its attributes occur in various forms throughout the rich tradition of Paleolithic female representations.

The figure, about 2.4 inches tall, was carved from a mammoth tusk. The intricate detailing achieved with primitive stone tools indicates the amount of energy invested in these little objects—tens if not hundreds of hours.

I viewed the original carving on my last trip to Tübingen and was given a scale replica of it. I decided to create a larger version to see the sculptural forms of the carving more clearly, abstracting from the intentional scratching of the surface as well as the cracks from assembling the many pieces of the original find.

As I worked on the piece, I was impressed at the elegant abstraction of the human female form as well as its capture of the maternal stance of the pregnant woman. Early humans during the Ice Age clearly had much of the perception, empathy, concern and craftsmanship that would rival that of contemporary people.
My clay sculpture, holding a scale model of the 40,000-year-old original.

**The Valdivian Owl**

In September and November 2017, I carved a set of two sculptures in cherry wood, based on an ancient stone sculpture from Ecuador.
Friends had commissioned me to make a sculpture for them and I thought for some time about doing a sculpture of a bird, since they loved birds, particularly owls. One day, browsing through pictures I had taken of pre-Columbian sculptures in a museum in Ecuador in 2013, I came upon my favorite of the collection and started to research it on the Web.

Here is the photo I took—as well as a collection of other Valdivian stone sculptures:

This carving is one of the earliest known sculptures in the Americas, a Valdivian stone carving from Ecuador. Valdivian stone figures are rectangular in shape with delineated eyes and features in characteristic minimalist style.

The Valdivia Culture is one of the oldest settled cultures recorded in the Americas. It emerged from the earlier Las Vegas culture and thrived on the Santa Elena peninsula near the modern-day town of Valdivia, Ecuador, between 3500 BC and 1800 BC.

First, I carved a sculpture based on the Valdivian owl for my friends. I liked it so much, I made another one for my own collection, perched on a branch.

**The Cycladic Figure**

In 2015, I carved a sculpture based on early ancient Greek Cycladic sculpture. The wood is English Plane (related to sycamore) from a large tree we had taken down in our back yard a couple of years earlier. It was one of several logs that I had the arborist cut from the tree before removing the rest by crane. I started carving the log, based
on a small copy of a Cycladic sculpture that I had purchased in Greece. During two visits, Rusty assisted in the carving.

Because my sculpture is based on the Greek marble Cycladic sculptures from the birth of Western sculpture and because of their connection with fertility, I named my sculpture “Baby” and dedicated it to Rusty and Sarah's daughter, my second granddaughter, Ruby, upon her birth.

It was at first difficult to achieve the three-dimensional symmetrical form of the model. In addition, the quality of the wood seemed ragged, so I wondered if I would be able to get a nice surface or reveal an interesting grain. It was not until the piece was completed and oiled that the beauty of the wood was revealed.

The original Cycladic sculptures date back to the Neolithic era of pre-history, between 5000 BCE and 2400 BCE. They were carved in the finest Greek marble, which is local to the Cycladic islands and was later exported to Athens and elsewhere in classical Greek times. Little is known about the Cycladic people and their world, although the group of islands was a crossroads of the Mediterranean even before sailing ships were invented.

The Cycladic sculptures were likely fertility objects. Most of them represented young women of childbearing age and accentuated their female features. Certainly, they involved the life cycle, and are often found in graves.
The Cycladic sculptures all possess certain features: canonical (e.g., folded arms), proportional and simplistic. They appear in museums now as pure in their whiteness. However, these sculptures were frequently painted. Pigments were used to add detail. The only facial feature carved was the nose. The sculptures have all been excavated at Cycladic cemeteries.

The Neolithic and Bronze Age Cycladic figures present an intriguing link between prehistoric art and Western art; between the figurines of Galgenburg and Willendorf and the sculptures of Brancusi and Modigliani. As Lord Colin Renfrew states of these sculptures, “a handsome standing figure, with quiet, unassertive rhythms and balanced proportions, achieves one of the most compelling early statements of the human form.”

Is it that there is something incredibly modern about these prehistoric figurine sculptures, or has humankind always portrayed the human form in a manner that utilizes elegance and simplicity, with figures mastered by style and yet full of life? The
emotional pitch is achieved by the omissions, distortions and exaggerations, and in so doing the artist creates a tension between the abstract and the real.

The Museum of Cycladic Art in Athens—a favorite of mine—is dedicated to the study and promotion of ancient cultures of the Aegean and Cyprus, with special emphasis on Cycladic Art of the fifth millennium BC. It was founded in 1986. Its collection is one of the finest collections of Cycladic artifacts in the world.

The Cycladic Islands of Greece are set in the Aegean Sea. The ancient Greeks called these islands the Kyklades, a scattered kyklos or circle, of islands around the holy island and sanctuary of Apollo: Delos. The Cyclades had rich mineral deposits and fine marble. They were close to each other, which made safe navigation between the islands in rowboats easy (sailing ships were only invented ca. 2000 BC). During the Early Bronze Age, when people started using bronze for their tools and weapons, a sophisticated culture flourished in the Cyclades that thrived for almost a millennium. This period—called Early Cycladic—ranges from 3200 to 2000 BC.

The Early Bronze Age inhabitants of the Cyclades used their local supplies of premier white marble to make both figurines and a variety of stone vases. The development of sculpture was one of the most impressive achievements of the Early Cycladic culture, no doubt made possible by bronze technology. Archaeologists organize the well-known stylized marble figurines in two basic types: schematic and naturalistic. The majority of Cycladic figurines represent nude females in standing position. Less frequent are models of male musicians, warriors and groups of figures in a range of postures.

I took these photos at the Museum during May 2010, when we went on a wonderful cruise of the Cycladic Islands to celebrate my 65th birthday:
Pre-Columbian Sculpture

I have always loved pre-Columbian sculptures and figures—at least since my family trip to Mexico when I was 17. The Olmec, Maya, Inca and Aztec cultures all had wonderful pottery, masks and carvings.

The ancient Olmec culture specialized in large stone carvings, which are relatively rare. I saw some near Vera Cruz on my honeymoon in 1989 and more during a trip to Guatemala in 2014. The Mayans, Incans and Aztecs had their pyramid temples with relief carvings, stone carvings and pottery incorporating striking images of gods and animals.

Over a dozen Mayan and Aztec sculptures named *Chacmool* have been found, dating from 800 AD on. The distinctive posture of the *Chacmool* is what allows the many sculptures to be united under one term: the figure reclines on his back, his knees bent and his body on a single axis from neck to toes. The elbows rest on the ground and support the torso, creating tension as the figure strains to sit upright. The hands meet at the chest, usually holding either a disk or a vessel, possibly for human sacrificial hearts. The head rotates ninety degrees from the axis of the body to present a frontal face. This recumbent position represents the antithesis of aggression: it is helpless and almost defenseless, humble and acquiescent.

*Chacmool* excavated by Augustus Le Plongeon from Platform of the Eagles, Chichen Itza.
Chacmool excavated in 1943 in Mexico City.

My mother brought me a small replica of Chacmool from a trip of hers to Mexico. I used this as a model for my larger clay sculpture.


I created several studies of pre-Columbian ceramics—see the section on Pre-Columbian Figure Series above.
Modern Sculpture

Brancusi Simplicity

Constantin Brancusi (1876-1957) is the modernist sculptor who reduced forms to their simplest essence. Born in Romania (where my paternal grandparents came from), Brancusi was active in Paris during the blossoming of abstract art, partially inspired by exotic sculpture of prehistoric and non-European cultures.

Throughout my life, I often visited the room in the Philadelphia Museum of Art dedicated to Brancusi’s sculptures. I also lingered in Brancusi’s studio, recreated in Paris. In particular, I loved the purity and sophistication of Brancusi’s “Bird in Flight” sculpture, which he produced in several media.

Brancusi’s marble sculpture in his atelier, my oak sculpture in Rusty’s living room, my cherry sculpture outside my house.

To reawaken my sculpting after several years of non-use, I challenged myself to reproduce “Bird in Flight” in wood, using a curved white oak limb from a tree in my
Philadelphia woodland. I later decided to do a larger version for outside my house in Chatham, from a wild cherry limb from my woodlands there.

**Moore Forms**

Henry Moore (1898-1986) has always been my primary inspiration in sculpture. His sculptures have allowed me to see and feel 3-D forms.

I have looked carefully at Moore’s sculptures whenever I came across them and have run my hands as well as my eyes over their surfaces, textures, curves and edges. I have read many books about his sculpture, which mainly involves looking at the pictures, which try to capture the 3-D sculptures in 2-D photos.

Moore went beyond Brancusi by adding back some of the complexity of organic 3-D forms, while retaining the clarity of the simple underlying forms.

Moore was one of the pioneers of direct carving (as opposed to the academy’s use of pointing tools to mechanically copy models). He was also one of the first sculptors to explore holes or negative spaces in sculpture—whether leaving open space between forms or actually poking holes in solid masses.

I have always adopted direct carving and been interested in negative space. I am exploring how to go beyond Moore’s holes to open up masses even more, using
intersecting negative spaces and defining negative spaces with partially surrounding positive forms.

Although Moore was primarily a stone carver, he did a number of wood sculptures. My approach to woodcarving is quite similar to Moore’s—although of course not at his level of artistry and professionalism. Once established, Moore was also able to work at a much larger scale than I can.

Studies of Giacometti

Sculptors generally make copies of works by their predecessors. Sometimes the goal is to reproduce the original faithfully, to some degree. Other times one adapts a pose or technique to a different subject. One can learn enormously by copying the masters. In previous times, students of sculpture learned through apprenticing an experienced artisan, working under their direction and being trained in their ways of seeing, planning, creating, reproducing and marketing sculpture. Copying interesting works is a way for students today to learn from a variety of experts, who are not personally available.

In Spring 2019 after returning from a stay in Florida away from my studio, I re-engaged in sculpting by studying the life and work of Giacometti. I read James Lord’s lengthy biography and looked at books of photos of his sculptures, which were mainly modeled in clay or wax and cast in plaster.

In quick succession, I copied several of Giacometti’s sculptures that appealed to me (see the section above on my “Giacometti Studies Series.” Most were from his early cubist period. I created each piece in clay and then made a rubber mold and cast it in plaster. I also fired the original clay version when possible.

On the way to Florida, I had seen all Degas’ sculptures in the National Gallery in DC. So, I did a clay study of his Little Dancer, the only sculpture he displayed during his lifetime.
Topology of 3-D Form

“Topology” is the *logos of topos*, which is Greek for the logical structure or study of places, which are spaces defined by materials, such as the surfaces of 3-D objects. There is a field of mathematics devoted to formalizing topology. Euclid had already studied regular 3-D polyhedrons, such as the cone, pyramid, globe and the five Platonic solids.

The five Platonic solids.

For modern topology, these are all topologically identical in that they have a continuous surface separating an inside from an outside. A donut shape, for instance, is different, because its surface could not be stretched to form one of the Platonic solids without somehow tearing the surface. I do not find the regular solids very interesting sculpturally, except perhaps as bases for stretching into twisted and asymmetric forms.

A simple topological trick is represented by the *Möbius Strip* sculpture. A Möbius strip is a 2-D band that has its two ends attached following a half twist. A simple band—either lying flat or with ends attached without the twist—has two sides: a top and bottom or inside and outside. However, with the twist, it only has one side! If you run your finger along one side, you end up on what looks like the other side before returning to where you started.
A Möbius strip and a Klein bottle

A more obscure trick is represented by the *Klein Bottle* sculpture. A Klein bottle is a bottle shape whose neck is elongated, enters the jar through some fourth dimension, passes through the bottle and then flares out to form the body of the bottle. If you start at some point on what appears to be the inside surface of the bottle and move along that surface and out the neck, you can come around to what appears to be the outside surface of the bottle. Of course, the 3-D representation of a 4-D Klein bottle requires some artistic liberty.

Sculpture in the real world is neither 2-D nor 4-D, but has an inside (the wood or clay) and an outside (the oiled or glazed surface). However, if the sculpture has been opened up with negative spaces or surrounded holes, it can have different topological structures. For instance, some of my sculptures have zero, one, two or more holes—making their topological structures mutually incommensurable. Furthermore, sculptures like *Mrs. Mayo* have holes that interconnect, forming relatively complex topologies.

Sculpture, as the working of physical materials in the world, is conditioned by structural needs for strength and balance in order to persist and be displayed. The act of opening up a piece with significant holes must take these needs into account.

It is interesting that the *Angel of Progress* sculpture, as it winds up from its base, maintains two vertical supports at each of three stages. The two vertical supports flow out of the horizontal stage below and into the horizontal stage above. At each level, the two verticals and two horizontals form a circle framing the hole that is opened up there. The three topologically distinct openings are located at angles above each other, together defining an imaginary vertical negative space where the core of the log had been. Maintaining a pair of supports at each stage provides for strength and balance of the overall sculpture, which is delicately balanced and which takes advantage of the strength of the log’s vertical fibers. If any one of these verticals were removed, the weight of the upper part of the sculpture would produce a destabilizing torque, threatening breakage or collapse.
The Pod sculpture, by comparison, has three verticals at each stage, providing a considerably more stable structure. The Pod features three faces working collaboratively. The support for these faces spirals down through various forms, consolidating in three columns from the upper half of the sculpture that sit atop three columns from the bottom half. The bottom rests again on three legs. Maintaining a trio of support at each vertical level provides for substantial stability, avoiding the careful maintenance of balance needed in the Angel of Progress.

In a contrasting approach, the Hickory Bivalve is balanced on a small central base. This sculptural trick makes the sculpture seem to float without support. This requires a strong hidden bolt anchoring the sculpture to a broad base. Similarly, Saddle Curve is balanced on a single narrow support. However, in this case the sculpture was designed with a strong sense of internal balance. The sculpture has no separate base, but stands on a broad, three-toed foot that is integral to the design. The support section is a sculptural curve, a twisting 3-D parabolic form. The surface of the top-heavy upper part is a saddle curve, a topologically significant 2-D form. The saddle point—near the center of the log’s grain pattern—is a high point in one direction and a low point in the perpendicular direction, like a horse-riding saddle that slopes up in the front and back of the rider and slopes down on the sides under the legs. In calculus terms, a saddle point is simultaneously a relative maximum and minimum. In the sculpture, this surface is used to display the visually interesting grain that evolved at the base of the cherry tree, just above ground level. To accomplish this, the log was flipped wide side up, requiring a supporting form that would provide adequate stability.

A saddle curve: \( z = x^2 - y^2 \). Detail of twisting support curve of Saddle Curve. The horizontal saddle curve of Saddle Curve.

Sculptures with more complex topological structures may include interconnected openings. An early attempt at this by me is Hermaphrodite. It has two vertical supports forming an elongated opening, which are then connected to an opening from above. Bite of the Apple adds another opening, so that holes from four of the six perpendicular axes meet in the thereby opened up center of the piece. Similarly, Return of the Osprey has four openings that join in the middle of the log. Sly Eye has two openings defining the spiraling middle area of the rear of the piece entering into a cavernous opening of
the wood’s mass from the front. *Mrs. Mayo* features the most involved set of openings, including some largely hidden holes down the center, linking multiple openings. The inside/outside relations of *Hinged Forms* are rather ambiguous, depending on whether the hinge is open or not; they can be seen as reducing the wood almost to an outline structure defining connected negative spaces, most notably the center of the log, for which opening the hinge provides easy access for the carving and the observation.

The view of sculptural material as structures defining negative forms comes from my ceramic models and sculptures. See the section on my Negative Structures Series, featuring the following: *Slab Sculpture 1, Slab Sculpture 2, Slab Sculpture 3, Sculpture with Grog* and *Negative Structure*. Here, the interconnected openings are too involved to count or describe. The approach shifts from opening up a solid mass to creating an open space by defining its boundaries.

Working in clay involves different gravitational—and hence topological—considerations than carving wood. The clay must hold its own weight as it dries and is fired, as well as balance properly as a finished piece. Clay structures are built up, whereas wood is carved away. So extreme opening up of negative spaces by reducing positive forms to a minimum involves adding clay until it is strong enough versus removing wood without making it too fragile to withstand checking during drying or breaking under stress. Ceramic sculptures can be built up from spans of clay coils or elongated slabs, whereas wood sculptures are carved out from solid logs. Although the results are often quite different, I often create ceramic models that I can hold in my hand, easily view in 3-D and quickly refine their masses, openings or connections. Such maquettes then inspire and guide the creation of wood sculptures requiring a hundred times as much time and effort. In this way, topological insights from one medium influence work in the other material. This is an important aspect of the dialectic between material and manipulation in sculpture.

Details of *Pod* illustrating tripod support structure and geometric elements.

Sculptural topology—the structural logic of 3-D form in matter like clay or wood—contrasts with mathematical topology or geometry, although there are linkages between them. For instance, *Pod* and *Saddle Curve* incorporate lines, circles, triangles
and curves, incorporating them however in masses that flow into one another in organic rather than stylized ways. Mathematical figures are abstractions from physical objects; sculpture makes visible what is lost in such abstraction.
As discussed in the following chapter on my sculpting techniques, a frequent goal of my carving or modeling is to open up the material. The aim may be partially to supply views into the heart of the mass—revealing swirling grains in heartwood, for instance. It may also offer a view of the internal structure, such as supports in clay or plaster pieces. Furthermore, it adds considerable complexity, asymmetry and formation to the sculpture. Thereby, it suggests and invites more ways to observe the piece visually and tactually.

However, the primary effect of opening up a mass is on the space of the piece: the space around the piece and the spaces within the piece:

Space is the place
in which sculpture opens up.
In sculpture, the term “negative space” is often used to specify how a hole in a sculptural mass can be viewed as itself having a form—the negation of the form of the mass. Wittgenstein illustrated the phenomenon of “seeing as” either positive or negative spaces in simple drawings:

Faces/vase drawing. The white positive space of the vase creates a black negative space of two faces looking at each other. By shifting visual focus, you can see it in either one way or the other.
In a sculpture, one can simply poke a hole, opening the mass with a negative space, or one can fashion the opening as an interesting interior form. The inner negative space can be integrated with the surrounding exterior negative space, so that the positive space of the sculpture’s surface flows from its outside into its interior.

*Holes.* Red clay and paint. 2017. Based on a stone sculpture by Barbara Heppenworth, a contemporary of Henry Moore. This was a simple attempt by me at creating several holes in a cylindrical form and letting their spaces merge inside.

Moore, Heppenworth and others started by poking holes and then enlarging them into negative forms. I sometimes try to take this further, so that the positive and negative forms become equally important aspects of the sculpture. One can then view the sculpture as consisting primarily of open spaces defined by positive forms. The forms of the spaces then become paramount. For instance, there can by multiple open forms, flowing into each other, partially contained by positive forms.
The concern with opening up sculpture has evolved during my years sculpting. My first wood sculpture, *Gelassenheit*, did not open the original log at all, but let it be, and followed the lines of the log, simply defining interesting flowing contours that brought out the colorful grain of the black walnut. The next one, Twisted Sister, defined a negative space between its spiraling legs. Two natural holes from knots in the wood provided negative spaces like eyes.

Then I did a plaster sculpture that was quite open, structured by chicken wire framing holding the plaster, which was soaked on rags. This piece not only had two short legs with space between them, but many openings that flowed from the exterior into the interior. The inside was structured with ropes to add interest to the inside, like nerves within a body or brain. The openings from the outside merged into this complex internal space.
Some 15 years later, I carved the *Owl of Minerva*. Again, it had two shapely legs defining a 3-D negative space that twisted between them. It also had an open form that defined the owl’s wooden beak and poked through the back of the head to suggest an eye.

Below, where I discuss how I carve the *Open Cherry Trunk* and *Upright Cherry Figure*, one can see the process of gradually opening up a log to create a unity of positive and negative spaces.
My most open wood sculpture is *Mrs. Mayo*. I discuss in the following chapter that I purchased new tools and developed a new approach to carve this sculpture. The *Hickory Bivalve*, which preceded this carving, was also opened up extensively. In particular, the openings in *Mrs. Mayo* interweave and permeate the piece. The positive
forms that remain can be “seen as” largely containment structures that define the boundary between interior and exterior spaces.
After opening up these wood sculptures, I decided to try creating ceramic sculptures that also open spaces. I thought it might be easier to create internal spaces using clay.
Ceramic pieces with negative forms: *Skeletal Sculpture* and *Nyarit Seated Man*.

In modeling with clay, one can build up structures, as opposed to carving out openings in solid material. This can provide more flexibility and access to explore the formation of negative spaces. My first attempts at this were *Slab Sculpture 1, Slab Sculpture 2, Slab Structure 3, Sculpture with Grog and Negative Structure*. 
These abstract ceramic explorations influenced my subsequent wood sculptures. I first modeled quick clay maquettes to try out approaches in 3-D to opening up the logs. Following are some of these studies:
These resulted in large wood sculptures that opened up logs:
A special approach to opening up space used the Klein Bottle from topological mathematics. It is a 4-D closed manifold that has no differentiation of interior and exterior. I created a 3-D representation using clay coils.
There are some auxiliary windows to allow one to look inside, but they do not belong to the Klein Bottle. The large round hole in the front is the opening of the tube that comes out the top, circles around, enters the main bottle at the back and then opens out the front. (The way the tube enters at the back is topologically illegal in 3-D, but takes artist’s license to account for only being able to create 3-D forms in this world.) If you start from a point “inside” the bottle, you can proceed up the tube, around and out the front into the “outside” without crossing any surface, so that inside and outside are the same continuous space.

The trick in opening up the inside this way is that the tube actually does penetrate the surface of the bottle in the back. In 4-D it could enter without breaking the surface, in analogy with the Mobius Strip, which is a 2-D manifold that only has one surface in 3-D space. (See my ceramic Mobius Strip.)
6. Practice: Sculpting 3-D Form in Wood

Tools and Techniques

I generally start with a log and a challenge. The two go together. For instance, if my challenge is to create a wooden sculpture that recreates some of the form of Brancusi’s *Bird in Flight*, then I need a log or branch that is long, thin and curved at one point. Perhaps the log comes first and suggests the challenge. Alternatively, the log may contain the shape of a human head or a body with two or four legs.

I like to create large sculptures (almost on the scale of the human body), so one can see and feel the forms easily. For practical purposes, I am limited to logs that are small enough and light enough for me to move around, perhaps with a hand truck, a lever or a friend.

From my first wood sculpture to my last, I have used the same tools to shape the form—literally the same physical large gouge and mallet. The gouge chips away chunks of wood about one square inch across and curved below. Hundreds of these gouge cuts provide the rough surfaces of the sculpture. I then use a foot-long Sureform rasp to smooth out the gouge marks and to create my characteristic long flowing curves. Typically, one form on the sculpture flows into another along curves refined by this rasp. Each of the major forms in the sculpture is asymmetric, looking unexpectedly different from each angle of observation.

If one looks at a sculpture as it is literally “taking shape” as an organism (an assemblage of multiple organ-like 3-D forms), then the question arises of how to join the distinct forms together. This question is partially answered in the technical process of refining and smoothing the individual forms and the transitions between them. The rasp helps to define smoothly flowing, minimalist transitions between them like those found in bones and animal bodies.
My original mallet, gouge and rasp. Hand carving tools, including rifflers.

Once the sculpture is well defined by the gouge and the rasp, the surfaces are refined to feel silky smooth to the touch, almost like skin. This is accomplished with smaller rasps or rifflers—to get into the tight spots where the Sureform cannot reach—and by sandpaper. I typically use 4 or 5 successive grades of sandpaper, from very rough 50-grade to super smooth 300-grade wet-and dry. The final sanding is interspersed with oiling.

I have always finished my sculptures with Tung oil. I used to mix my own Tung oil and boiled linseed oil, but now I use a commercial Wetlox blend, which works well for all wood surfaces. I give the sculpture at least three or four coats of oil, rubbed with the wet sandpaper. Sometimes, a sculpture can use another coat of oil after a year.

My electric tools: chainsaw, drill, belt sander and router.
Gradually, I have begun to use electric tools to rough in and help shape the logs. For instance, in creating *Mrs. Mayo*, I wanted to open up the log and have interconnected openings going throughout the sculpture. First, I created clay maquettes or models of the log with various openings. In particular, my challenge was to rough in the sculpture with a chain saw, which can only cut long, straight cuts. I bought a chainsaw that would be safe for sculpting. I also got a strong hand drill with large bits for drilling long or wide holes.


A technical reason for wanting to open up the whole structure of *Mrs. Mayo* was that the wood was still green, as the tree had just been felled. I started carving right away, rather than waiting five to ten years for the wood to gradually dry from the inside out. Opening the log up so that no part was more than three or four inches thick reduced the chances of the wood splitting or checking as it dried and shrank from the outside. Although there was some checking while I carved the piece, it stopped as soon as I oiled it to seal the outside. Thus, the opening up process combined aesthetic, technical and practical issues of form, tools and materials.
Holes drilled for eyes. Hole (see light circle in center) drilled from middle of sculpture down to legs.

Now I work in a studio in my basement that combines a carpentry workshop with a wood sculpture studio and a clay studio. As the need arises, I clear out an area to make a workspace for wood, clay, plaster, molds or photography.

For many years, I have used a jigsaw, a belt sander and a router for creating sculpture bases and for doing some of the smoothing work on sculptures. Now, I can fluidly combine tools and techniques from carpentry, sculpture and ceramics.

The ceramic and carpentry sections of my workshop.

I often create small clay models of sculptures I have in mind. This is extraordinarily useful in getting a feel for the 3-D forms, which are impossible to imagine in one’s
mind and to understand how the different perspectives fit together. The human mind is shockingly weak at understanding 3-D forms. Imagining complex sculptures without a good model is wickedly difficult, even with perspectival sketches or photos.

For instance, I wanted to carve a log I had cut down specifically with a favorite wood sculpture by Moore in mind. I had several photos of the sculpture; even an entire book devoted to Moore’s process of creating that particular sculpture. However, I found it impossible to plan my carving until I made a rough plasticine clay model. Then I decided to make a larger, more accurate clay model using sculpting clay.

Study of Henry Moore’s *Reclining Figure: Holes*.

It was surprisingly difficult to get the different perspectives from multiple photos to meld together. I discovered a lot about the three-dimensionality of Moore’s sculpture from making the model. In particular, I learned about the positive and negative spaces in the interior of this opened up form, significantly entitled *Reclining Figure: Holes*.

In the end, after making several clay models, I concluded that the heavy log I had moved from Philadelphia to Chatham was not appropriate for a figure like Moore’s. I rotated the log and began to open it up using all my tools to create interesting negative spaces and exterior forms. Eventually, it evolved into my final sculpture of 2019: *Return of the Osprey*. This is my most complex sculpture to date, with many
positive and negative forms flowing in and out of each other. (See section below on “Opening Up a Wood Log.”)
Creating a Set of Oak Sculptures

It was a dark and stormy night in Chestnut Hill, Philadelphia, when I heard a loud crash in the middle of a torrential lightning storm. The next morning, I found that a large limb from a two-hundred-year-old oak tree had been flung by the storm against our garage wall and had smashed an open window to pieces. After I sawed up the heavy branch and dragged the logs off to our woodpile, it struck me that this was a gift from heaven. I was just starting a sabbatical from teaching and the logs inspired me to make time now to return to my wood carving after a hiatus of more than a decade.

It is usual to let wood dry out slowly, so it does not check and split. But I knew that dry oak would be hard to carve and that I could make much faster progress if I carved the wood while it was still green and then treated it carefully so that it would dry without checking. This worked amazingly well. I carved the sculptures so that no volume would be too thick, so that outside layers would not dry out faster than interiors and cause strains. I was able to finish the carving before the freezing nights of winter came, and I oiled the sculptures well to prevent rapid drying and cracking.

(I later learned that Moore had also become impatient with the years it would take to dry out the large tree trunk he had for his *Reclining Figure: Holes*. He took a similar approach of carving the green wood and protecting it from checking.)

I made four sculptures from the oak and then went on to carve a more ambitious piece from a cherry tree log that a friend had brought me from his back yard in Illinois. The creation of these sculptures is documented here.

The first sculpture I did was relatively simple, to ease me back into the process. I took as a goal the elegant elongated form of Brancusi’s *Bird in Flight*, which he had cast in metal. I challenged myself to see how well I could reproduce this from a log. Brancusi had reduced the image of a bird in flight to a simple, abstract, streamlined form. As I worked on it, I discovered the subtle complexity of his form and adapted it to the log I worked on, which I had selected for this project.
Bird in flight. Influenced by Brancusi. White oak. Philadelphia. 2010. In these pictures are (a) the original log, (b) the log carved by gouge and mallet, (c) the piece smoothed with the Sureform rasp, and (d) the final sanded and oiled sculpture.

The next sculpture was also an upright form, but I wanted to open it up. In earlier pieces, I had found that a vertical opening could be formed as the pairing of two
vertical masses (like legs), with the opening scooped out between them and defining them as separate forms. This time I added an opening from above, so that the negative form from above flows into the opening below. I tried to develop contrasting forms coming out the top to add to the asymmetry of the piece—resulting in a vaguely male/female contrast, supported by a lower-leg like femur structure.

The third sculpture was based on the principle that a sculpture should be compact enough to roll down a hill without its parts breaking off. I started with a football shape that one could cuddle in one’s lap, like a cat with its head stretching out to be rubbed. The concavity that opened the form without penetrating it was based on a water-polished rock I found during my explorations at Lake Powell earlier that summer. I left the bottom rounded so that the piece could be held, fondled, and then set down to rock and find its own center of gravity. The beak-like ending of the elongated neck gave the piece a strong resemblance to a Mexican duck sculpture that I always treasured.

The female form is always a favorite source of inspiration and sensuality. With the fourth piece of oak, I tried to bring out sinuous twists of flowing masses, precariously balanced in motion.
Creating an Open Cherry Trunk

My last sculpture of the year 2010 was more ambitious than the four oak pieces. The log consisted of the starts to four branches, so I turned it upside down and used three of them for legs. Again, I wanted to open the wood up to get away from the simple log shape and to explore the interior of the cherry tree. I broke through two cavernous openings from the back and scooped out much of the mass in the front, behind and below a prominent beak form that emerged from the fourth branch.

The openings once more evolved from holes in the wood to spaces surrounding new positive forms defined by the negative spaces. They contributed to a spiraling motion that I used to animate the log. I then added decorative touches to enliven the piece further: a piercing eye next to the beak and a flowing channel to add to the spiral. The feet were given various pointed forms to lift the piece off its base. All of this emerged gradually as I worked on the wood and studied its development and its needs. Cherry wood has a variety of structural details, which I tried to uncover and retain, from beautiful patterns just below the bark to interior crevices filled with sap or resin.
Creating an Upright Cherry Figure

In the summer of 2000, I attended a conference in Ann Arbor, Michigan. A friend had brought along in his pickup truck a large cherry wood limb from a tree in his back yard in Illinois. He intended to bring it to my home in Boulder, Colorado, since he knew I liked to carve wood. I helped him on the drive and we read about philosophical controversies involving intersubjectivity to pass the time. Fifteen years somehow passed until I both wrote an essay on intersubjectivity and carved the log.

At some point during the intervening 15 years, I carved some of the middle area of the limb down to 4" x 4" to see what the heartwood looked like. I had thought about shaping the log in a bone form, like a femur with a ball-and-joint socket. When I lost weight, I thought of carving a long, thin image of myself. I probably considered other ideas, but never started on any of them.

On September 28, 2015, I decided to start removing some areas of the log to begin to break away from the original log shape, which is still visible in the following pictures. Also visible are the cuts I made with a chainsaw to facilitate carving out the areas.
Over the next several days of carving, I roughed out the forms of the sculpture using my favorite large gouge and mallet. That was good exercise.
At this point, I had roughed in some of the bone form and the ball for the joint. However, the sculpture still looked too log-like and symmetrical to me. I felt a need to break through the solid log cylinder. This would also cut through levels of grain to the darkly colored heartwood, just as my carving had begun to do in various areas of the log. So, I drilled some starter holes with my electric drill and then gouged out a passageway through the cylinder. As I integrated this into the sculpture, twisting asymmetries began to evolve and a larger variety of forms took shape, adding considerably to the interest of the sculpture, without destroying its unity.

People sometimes ask if I have an image of the sculpture in my head before I start to work on it (the Platonic theory) or if I just let the image that is inherent in the log come to light (Michelangelo’s claim). It is really much more of an emergent process that takes place through the direct carving techniques I use. Certainly, I start with some ideas that I want to explore and I start with a log that has interesting potentials. But the interaction between material and eye incorporate these in a much more subtle interaction. If one works from a model or from the nature of the log, then you have to wonder why that model (and pose) or that particular log (and orientation) was selected; there is generally some rough vision at work, although it may be substantially transformed as it gets worked out and evolves through the various stages of development.

Since I do not try to represent or re-present some model or object, I am free to explore, modify and refine to achieve various goals. I am interested in defining 3-D forms, which look quite different from alternative vantage points and which guide the caressing hand. I turn the worked-on sculpture around frequently and feel the volume and flow of the contributing forms with my hands. I love the beauty of wood as an organic product of growth, so my carving explores its layers of grain and its unique
twists. I use natural Tung wood oil as a finish to keep the wood alive and lustrous. It comes alive with the oiling and comes into its own final appearance. With periodic oiling, a wood sculpture can live indefinitely long, at least for centuries.

Because of the organic nature of my sculpture and its constituent forms, the finished works often remind people of natural and even human figures. In part, this is because my forms and their interconnections tend to follow the laws of organic growth. They exhibit a massing, sense of materiality and sensuousness of form, which may feel familiar from objects in the world. The forms are appealing to the eye and the touch, partly because they are both similar and, in certain ways, different from natural objects.

It is interesting that my first two wood sculptures are particularly suggestive to many viewers. People often say *Gelassenheit* looks like an elephant, although I avoided imposing any representative forms on that log. Rather, I tried to make the forms look and feel massive. I guess that elephants also have massive forms (large head, powerful trunk, floppy ears, sturdy legs, lumbering body). And *Twisted Sister* always reminds people of ET, although the movie came out a couple years after the sculpture was finished. Apparently, the degree of abstraction from the human figure is similar in the two figures—and the eyes of both are appealing.

Sculpture is a unique art form in that it is three-dimensional. It not only fills and shapes space, but it creates a special space (Heidegger's theory) in which its event of “presencing” unfolds. Whereas painting only suggests perspective and tricks the eye, sculpture beckons the observer's body to interact and move around the piece, taking up infinite different physical perspectives on it. People are much more oriented to sight than to any other sense for observing and understanding the world. Vision is two-dimensional, capturing only that side of objects that currently face us. Perhaps infants, who put things in their mouth to explore them, or blind people, who touch surfaces, have more of a 3-D sense. However, it seems that the human brain is primarily wired (or trained) to understand 2-D forms much better than 3-D forms. Creating and experiencing sculpture may provide a corrective to this rather severe limitation.

While impressionist painting began to display the materiality of light, paint and brushstroke, wood sculpture brings out the nature of the wood: its size, shape, weight and volume, but also its roughness (or smoothness) of surface and the unending complexity of its coloring and graining. The growth history of trees like oak and cherry are intricate on many scales and they are captured in the cell structure and displayed in the sculptural surface.
After I roughed in the 3-D forms of the log, I used a large rasp to remove the gouge marks and to refine the curving surfaces. All my wood sculptures have been created
using the same basic tools and techniques. This gives a unity to my wood sculpture gallery—along with a diversity based on different tree species, sizes and shapes. My pieces have smooth flowing surfaces, in part due to the large rasp work.

Rasping was followed by sanding. I started with #50 rough sandpaper to smooth the surfaces. And gradually worked up to #1000 very fine sandpaper as well as wet-and-dry sandpaper and #0000 very fine steel wool to give the surface a smooth touch.
Finally, I oiled the wood with pure Tung oil. This brought out the incredible color of the cherry wood, which I had worked so hard to reveal as the forms cut across the multi-color bands of grain. I oiled the sculpture each day for several days, rubbing it with a cloth and preparing for each coat with the steel wool.
On November 3, I took the sculpture out in the back yard to get some sunshine. The sculpture took about three weeks to create. Most days I worked on it for a couple of hours.

After a sculpture is finished and displayed, it generally ripens in color or darkens over time. Cherry wood, in particular, develops a deep red tone that continues to mature for years.
Opening Up an English Plane Log

When we took down a towering English Plane tree leaning out over the koi pond and threatening our house in Philadelphia, I had the arborist save a log from a bend near the top of the trunk. I had in mind carving it based on a favorite Henry Moore sculpture from a huge elm trunk, *Reclining Figure: Holes*. This was a complicated undertaking, so I put it off for almost a decade. Then I did a few clay models to understand the overall structure in 3-D, including the many holes opening it up, which were important enough for Moore that he named his piece accordingly.

However, when I finally got up my nerve to tackle the log, I soon discovered that it would not work as anything like Moore’s sculpture. So, I re-oriented the log upright and decided to just follow the lead of the evolving structure. I made some chainsaw cuts to define rough features and then I started to drill out several openings through the log to open it up. I used approaches I had developed in working on smaller abstract ceramic sculptures. I then carved the openings of the holes to flow through the piece from the exterior curves and forms.

As I worked on the log with my gouge, numerous 3-D forms emerged, intricately connected and leading in and out of the holes. On the top was a dramatic slab of wood, which I decided to carve into the head of an osprey, giving my sculpture the name “*Return of the Osprey*.”

Ospreys are graceful large raptor birds that are again becoming common on Cape Cod. In recent decades, ospreys almost died out. DDT pesticides being used for farming and gardening were affecting the eggs of ospreys, so that most of their eggs broke prematurely. With the banning of DDT, the osprey population is now returning from the brink of human-caused extinction. I celebrate their return with my sculpture, recognizing one instance in which people reversed their ecologically destructive practices in time to do some good.

This sculpture turned out to be one of my largest (and heaviest), as well as my most complex works. The opening up of the log involves large and interconnected passageways, most of which flow into the surrounding outer curves and forms. While the overall shape of the piece may portray an upright bird perched on its nest, with sharp beak ready for fishing, the details require running one’s fingers along individual transitions between forms and peering into the interior from different angles in diverse lighting. It takes time and effort to understand the sculpture.

Because of its skewed balance and considerable mass, the sculpture is bolted to a heavy base, carved from an oak cross-section gifted by Holly in Maine, via an oak board attached to the sculpture’s bottom.
Creating an Angel in Space

After returning from Florida at the start of the 2020 pandemic, I sheltered in my basement studio and focused on casting ceramic sculptures. Then I spent August carving the trunk of a cherry tree that Alan and Bill had cut down and saved for me.

I started by roughing the log in with a chainsaw, guided by a 10" clay model. This allowed me to remove large masses of the cylindrical log to start to define a structure of limbs spiraling up from a base, as well as to poke through a series of interconnected openings going completely through the log. Prominent features of the angel were also roughed in: head, chest, abdomen.
Works of 3-D Form
The wings are an add-on from a board. This was suggested by totem poles from the Northwest, which attach wings to thunderbirds. The base is a rough log from a pine tree that was downed at a neighbor’s house during a hurricane. I cut chunks of the large pine trunk and trimmed one down for this base, which is entirely shaped by the chainsaw. The base was needed to raise the angel and to stabilize its potentially top-heavy mass.

The theme, Angel of Progress, comes from Walter Benjamin’s 9th Thesis on the Philosophy of History:

“A Klee painting named ‘Angelus Novus’ shows an angel looking as though he is about to move away from something he is fixedly contemplating. His eyes are staring, his mouth is open, his wings are spread. This is how one pictures the angel of history. His face is turned toward the past. Where we perceive a chain of events, he sees one single catastrophe which keeps piling wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing in from Paradise; it has got caught in his wings with such a violence that the angel can no longer close them. The storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress.”

In 1940, when fascism enveloped Europe, eventually leaving him no escape but suicide, Benjamin wrote this set of theses, questioning the Marxist optimism about historical progress. The “Angel of the New” is caught in a chaotic storm, which prevents a forward-looking view and dumps an ever-growing pile of debris at his feet. In the apotheosis of governmental lawlessness, unrestrained health pandemic,
potential financial collapse, increasing economic inequality, ideological division and impending climate change, it seemed to me time to ponder an angel of progress again. My newer angel is inscrutable, looking neither forward nor backward, expressing neither hope nor redemption, blankly hovering amidst whatever may come or go or pile up. The winds blow through her and she persists with the solid material of wood that lives on after its trees are gone.

Like my other recent wood sculptures, I aimed to open up space and escape the solid, symmetric cylindrical form of the original log. In particular, I built upon the approach to multiple intersecting openings in Mrs. Mayo and Return of the Osprey. While the foot of the sculpture retains the circumference of the log, the base it sits on extends outside to broaden the space somewhat. The wings reach out even much further, to open, define and pierce a larger encompassing space, without pretending to be an entirely integral part of the log.

The negative forms of the openings and of the cutaways that lead to them define structural limbs that support the angel-like legs, spiraling around a central hollow. The forms of these legs result largely from the studies of structure in my abstract ceramic sculptures. As indications of structure, the positive forms of the lower part of the sculpture indicate or outline the angel’s hips and legs, while removing their gravitational mass and allowing the body to flow lightly around and to suspend the figure almost in flight.
The forms that enclose the central openings of the lower half of the angel are masses designed to reveal the power and beauty of the cherry wood. Note, for instance, how
thin some of the joints are where structures merge into each other. The curves and angles of these forms are designed to bring out the grain of the log, which grows in concentric rings following the vertical of the log. To expose interesting grain patterns, one must cut into the log and even across the log (as atop the head).
7. Catalog: Chronology of Works in 3-D Form

Musicians

Musicians. Red clay, fired and glazed with a clear glaze. Frankfurt, Germany. 1970. Approximate size (height, width, depth – hwd): 4”x4”x3”. Hash pipe (there is an internal connection through the bodies from the screen drumhead to the flute pipe stem).
Plaster Maquette

The Hand of God

Model of Part of Moore’s 3-Piece Figure

Model of Part of Moore’s “3-Piece Figure”. Clay. Frankfurt, Germany. Hwd: 4”x6”x4”.
Gelassenheit

Influenced by Heidegger.
Twisted Sister

*Twisted Sister.* Cherry. Pine Run, New Jersey. 1977. Hwd: 36”x10”x8”. Not influenced by E.T.
Ben’s Letter Holder

Organic Form

Clenched Fist

The Letter R

Atomic Power

*Atomic Power*. Cyprus wood. Philadelphia. 1983. Hwd: 30”x33”x5”.
The Owl of Minerva

Female Torso

Common Senses

Sandstone Face

*Sandstone Face.* Lake Powell sandstone. Lake Powell. 1996. Hwd: 10”x4”x2”.
Boulders

Rocky Mountain

Rocky Mountain. Colorado Alabaster. 1998. Hwd: 12”x16”x8”. Selected at the mine, near Marble, CO.
Rocky Couple

Oak Carvings from Philadelphia

Four sculptures from an oak tree limb that fell in the Philadelphia yard during a thunderstorm. See the following four.
Bird in Flight

Lap Sculpture

Feminine Twist

Hermaphrodite

A Sly Eye

Spirit of Cape Cod

*Spirit of Cape Cod.* Wood from the Stahl-Bliss woodlands, possibly wild cherry; base of London Plane wood also from the woodlands. Philadelphia. 2014. Hwd: 29”x13”x6”. Dedicated to Carol. Inspired by the Cape Cod seashore waves and creatures.
**Cycladic Baby**

Valdivian Owl

Valdivian Owl in Tree

Hickory Bivalve

Reclining Figure: Holes Model. Red clay. Chatham. 2017. Hwd: 6”x10”x5”. 3-D model of Moore sculpture from photos.
Bone Form

Bone Form. Clay fired and glazed. Chatham. 2017. Hwd: 2”x9”x4”.
Pointy Forms

*Pointy Forms.* Clay fired and glazed. Chatham. 2017. Hwd: 7”x7”x3”.
Whale Disk

Ceramic Mask

*Ceramic Mask*. Clay glazed. Chatham. 2017. Hwd: 8”x5”x3”.
Seal Disk

*Seal Disk.* Red clay and paint. Chatham. 2018. Hwd: 3”x8”x7”. Based on bone from beach.
Maquette Trio

Cylinder with Holes

Tübingen Venus

Möbius Strip

Graspable Clam

*Graspable Clam.* Red clay and paint. Chatham. 2018. Hwd: 5”x1”x4”.
Mrs. Mayo

Silver Torso

Sarasota Seashell Maquette

Sarasota Seashell Maquette. Red clay. Chatham. 2018. Hwd: 11”x1”x1”. 
Sarasota Seashell

*Sarasota Seashell*. Wild cherry from yard in Chatham. Chatham. 2018. Hwd: 48”x5”x5”.
Cup with Eyes and Nose

Irina Portrait

*Irina Portrait.* Clay fired. Chatham. April 2018. Hwd: 9”x6”x7”.
A Wink and a Blink

A Wink and a Blink. Clay fired. Chatham. May 2018. Hwd: 5”x7”x6”.
Long Bird in Flight

Ruby at 2

Ruby at 2. Clay fired. Chatham, 2018. Hwd: 8”x7”x5”.
Slab Sculpture 1

Slab Sculpture 1. Fired clay. Chatham. 2018. Hwd: 12”x10”x9”.
Slab Sculpture 2. Fired white clay with colored underglaze and clear glaze. Chatham. 2018. Hwd: ”6x10”x6”.

Self Portrait: Keynote

*Self Portrait: Keynote*. Fired clay. Chatham. 2018. Hwd: 10”x6”x7”. Based on a photograph of the keynote speech in Hong Kong.
Nietzsche Mask

Einstein Mask

Female Torso

Chatham Sunbather

Sculpture with Grog. Fired clay with colored slip. Chatham. September 2018. Hwd: 4”x14”x5”.

Sculpture with Grog.
Pre-Columbian Jug with Faces

Pre-Columbian Jug with Faces. Fired clay with black glaze. Chatham. September 2018. Hwd: 8”x6”x5”.
Pre-Columbian Jug 2: Olmec Head

Pre-Columbian Jug 2: Olmec Head. Fired clay. Chatham. October 2018. Hwd: 5”x5”x5”. 
Pre-Columbian Jug 3: Chilu Body

Pregnant Mayan

Pregnant Mayan. Fired clay with glaze. Chatham. October 2018. Hwd: 10”x7”x8”.
Nickerson Coin Obverse

Nickerson Coin Obverse. Fired clay with clear glaze. Chatham. October 2018. Hwd: 1”x10”x10”.
Nickerson Coin Reverse

Nickerson Coin Reverse. Fired clay with clear glaze. Chatham. October 2018. Hwd: 1”x10”x10”. 
Aztec Mask

Aztec Mask. Fired clay with black glaze and turquoise inset. Chatham. October 2018. Hwd: 7”x5”x5”.
Origanali 1 Face

Origanali 1 Face. Fired clay with glaze and acrylics. Chatham. November 2018. Hwd: 4”x3”x2”. 
Origanali 2 Face with Hairdo

Origanali 2 Face with Hairdo. Fired clay with glaze and acrylics. Chatham. November 2018. Hwd: 3”x2”x1”.
Origanali 3 Cylinder Figure

Origanali 3 Cylinder Figure. Fired clay with glaze. Chatham. November 2018. Hwd: 6”x2”x1”.
Pregnant Vera Cruz Girl with Necklace

*Pregnant Vera Cruz Girl with Necklace.* Fired clay with glaze and acrylic paint and turquoise inset. Chatham. November 2018. Hwd: 7”x4”x4”. 
Pre-Classic Guerrero Figure with Holes

*Pre-Classic Guerrero Figure with Holes.* Fired clay with glaze and acrylic paint and turquoise inset. Chatham. November 2018. Hwd: 8”x4”x1”. 
Mexala Axe Figure

Mexala Axe Figure. Fired clay with glaze and acrylic paint and turquoise inset. Chatham. November 2018. Hwd: 8”x4”x1”. (See “Terracotta Pottery” p. 66.)
Triangle Head of Incense Burner

Triangle Head of Incense Burner. Fired clay with glaze. Chatham. December 2018. Hwd: 5”x5”x3”.
Primitive Flat Face from Guerrero

*Primitive Flat Face from Guerrero.* Fired clay with glaze and acrylics. Chatham. December 2018. Hwd: 4”x3”x1”. (See “Terracotta Pottery” p. 66.)
Large Veracruz Head

*Large Veracruz Head.* Fired clay with glaze. Chatham. December 2018. Hwd: 8”x6”x2”. (See “Terracotta Pottery” p. 45.)
Nyarit Seated Man

Spiritual Jade

*Spiritual Jade,* Cherry wood with jade stone from Sedona. Chatham. December 2018. Hwd: 3”x4”x3”. Gift to Nastaja Jade Stahl.
Ora Hopi Spiral

Mask: Ruby 2.5

Skeletal Sculpture

Quick Grasp for Space

Mask: Ora Asleep - 14 days old

Mask: Ora Awake! - 18 days old

Negative Structure

*Negative Structure.* Fired clay with underglaze and glaze. Chatham. January 2019. Hwd: 5”x9”x8”.
Torso of Tony

*Torso of Tony.* Fired clay. Cotuit. February 2019. Hwd: 10”x8”x7”. 
Cast of Ora Asleep

Plaster Cubic Space

Cast of Ruby

*Cast of Ruby 2.5 2/5. Hydrocal. Chatham. February 2019. Hwd: 9”x9”x4”.*
Cast of Ora Awake

*Cast of Ora Awake 1/5. Hydrocal. Chatham. February 2019. Hwd: 7”x5”x3”.*
Chatham Walker

*Chatham Walker.* Plaster over metal rods with oak wood base. Chatham. February 2019. Hwd: 10”x11”x6”.

Study of Giacometti “Head”

Study of Giacometti “Head.” Fired clay with glaze on mahogany base. Chatham. February 2019. Hwd: 5”x3”x1”.
Study of Giacometti “Torso”

Study of Giacometti “Spoon Woman”

Study of Giacometti “Couple”

*Study of Giacometti “Couple.”* Fired clay with glaze on mahogany base. Chatham. February 2019. Hwd: 9”x5”x3”.
Study of Giacometti “Tall Figure”

*Study of Giacometti “Tall Figure.”* Clay on oak base. Chatham. April 2019. Hwd: 26”x6”x8”.
Study of Giacometti “Composition Cubiste”

*Study of Giacometti “Composition Cubiste.”* Fired clay with glaze on mahogany base. Chatham. April 2019. Hwd: 9”x4”x4”.
Cast of Giacometti “Head”

Cast of study of Giacometti “Head” Plaster with acrylics or bronze paint. Chatham. April 2019. Hwd: 5”x3”x1”.
Cast of study of Giacometti “Torso.” Plaster with bronze paint. Chatham. April 2019. Hwd: 10”x7”x4”.
Cast of Giacometti “Couple”

Cast of Giacometti “Tall Figure”

*Cast of study of Giacometti “Tall Figure.”* Plaster over metal rod. Chatham. April 2019. Hwd: 26”x6”x8”.
Red Tall Figure. Self-hardening red clay over metal rods with cherry wood base. Chatham. May 2019. Hwd: 24”x4”x5”.
Seated Figure of Tony. White clay. Cotuit. June 2019. Hwd: 6”x4”x3”. Discarded when it broke during drying.
Study of Degas’ “Little Dancer”

Portrait of Giacometti

Atomic Joint
Reclining Figure of Suzanne
Reclining Figure of Suzanne. White clay. Cotuit. June 2019. Hwd: 12”x12”x7”.
Headboard with Waves

*Headboard with Waves.* Cherry wood. Chatham. July 2019. Hwd: 22”x60”x2”.
Cast of Pregnant Mayan. Plaster with gold paint and acrylics. Chatham. April 2019. Hwd: 10”x7”x8”.
Cast of Torso of Tony

Cast of *Torso of Tony*. Plaster with bronze paint. Chatham. April 2019. Hwd: 10”x8”x7”.
Cast of Portrait of Giacometti

*Cast of Portrait of Giacometti.* Plaster with bronze paint. Chatham. April 2019. Hwd: 9”x7”x6”.
Cold Cast of Portrait of Giacometti

*Cold Cast of Portrait of Giacometti.* Urethane epoxy with bronze metal filings. Chatham. August 2019. Hwd: 7”x7”x6”.
Macquette from Heppenworth Sculpture. Red clay. Based on sculpture by Barbara Heppenworth in front of the Boston Museum of Fine Art. August 2019. Hwd: 10”x 5”x 1”.
Torso of Nicole

Torso of Irina

Selfie #1. Fired white clay. Chatham, 2019. Hwd: 10”x7”x3”.
Sunbathing on Ridgevale Beach

Survivors of the Current Extinction

*Survivors of the Current Extinction.* Painted plaster casts on cherry base. Chatham, 2019. Hwd: 4”x8”x15”; 3”x6”x12”; 2”x4”x10”; overall 4”x19”x10”.
Cycladic Head

*Cycladic Head.* Plaster casts. Painted bronze on cherry base. Chatham, 2019. Hwd: 4”x3”x2”. 
Cycladic Figure

*Cycladic Figure*. Fired white clay glazed. Chatham, 2019. Hwd: 7”x3”x1”. 
Study of Giacometti’s “Figure”

*Study of Giacometti’s “Figure.”* Fired white clay glazed. Chatham, 2019. Hwd: 9”x5”x2”.
Klein Bottle

*Klein Bottle.* Fired brown clay with colored slips. Chatham, 2019. Hwd: 13”x9”x9”. 
Bite of the Apple

*Bite of the Apple.* Apple wood log from John Hikade in Maine. Chatham, 2019. Hwd: 13”x9”x9”.
Venus of Willendorf

*Venus of Willendorf.* Fired brown clay with colored slips. Chatham, 2019. Hwd: 11”x5”x4”.

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Selfie #2: Wink

_Selfie #2: Wink_. Fired brown clay with underglaze. Chatham, 2019. Hwd: 9”x6”x3”.
Selfie 3: Eyes Open

*Selfie #3: Eyes Open.* Fired red clay with underglaze. Chatham, 2019. Hwd: 9”x6”x3”. 

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Karl Marx

*Karl Marx*. Fired brown clay. Chatham, 2019. Hwd: 12”x8”x4”.
Venus of Laussel Relief #1. Fired brown clay. Chatham, 2019. Hwd: 9”x9”x2”. Destroyed while making a mold.
Selfie #4: Grin

*Selfie #4: Grin.* Fired red clay. Chatham, 2019. Hwd: 9”x6”x3”.
Selfie #5. Fired brown clay. Chatham, 2019. Hwd: 9”x6”x3”.
Athena. Fired white clay. Chatham, 2019. Hwd: 9”x5”x4”.
Larger Cycladic Figure

Larger Cycladic Figure. Fired brown clay. Chatham, 2019. Hwd: 9”x4”x2”.
Reclining Figure of Nicole

Reclining Figure of Nicole. White clay. Two-day long pose with live model. Cotuit. September 2019. Hwd: 8”x13”x5”.
Selfie #6

Selfie #6. Fired white clay with underglaze. Chatham, 2019. Hwd: 9”x6”x3”.
Selfie #7: At Rusty’s Wedding

Selfie #7: At Rusty’s Wedding. Fired white clay with underglaze. Chatham, 2019. Hwd: 9"x6"x3".
Selfie #8: Smiling

Selfie #8: Smiling. Fired brown clay. Chatham, 2019. Hwd: 9”x6”x3”.

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Joshua Mayo

Joshua Mayo. Fired brown clay. Chatham, October 2019. Hwd: 9”x6”x4”.
William Nickerson

William Nickerson. Fired brown clay. Chatham, October 2019. Hwd: 10”x6”x4”. 
Maquette for Sea Goddess

Maquette for Sea Goddess (S-curve Sekaa w holes). Clay, painted metallic copper patinaed. Chatham, October 2019. Hwd: 8”x4”x3”. 
Sea Goddess of the Cape

*Sea Goddess of the Cape.* Sycamore wood from tree of Andy in Chatham. Chatham, November 2019. Hwd: 24”x14”x10”.

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Maquette for Reclining Figure: Holes

Maquette for Reclining Figure: Holes. Fired clay with metallic gold paint. Chatham, October 2019. Hwd: 2”x6”x3”.

Maquette for Reclining Figure: Holes. Fired clay with metallic gold paint. Chatham, October 2019. Hwd: 2”x6”x3”.
Maquette of Small Female Form

*Maquette of Small Female Form.* Fired clay with crazed copper glaze. Chatham, November 2019. Hwd: 5”x2”x2”.
Interlocking Forms

Interlocking Forms. Fired clay with oatmeal and Albany slip glazes. Chatham, November 2019. Hwd: 6”x7”x5”.

Maquette for Cherry Stump #1

Maquette for Cherry Stump #1. Fired clay with amethyst underglaze. Chatham, December 2019. Hwd: 4”x3”x2”. 
Maquette for Osprey Totem

Maquette for Osprey Totem. Fired clay with underglazes. Chatham, December 2019. Hwd: 6”x5”x2’’. 
Maquette for Reclining Figure: Structure

Maquette for Reclining Figure: Structure. Fired clay with bronze in shellac. Chatham, December 2019. Hwd: 3”x6”x3”.
Hinged Forms

*Hinged Forms.* Oak wood from tree of June in Harwich. Chatham, December 2019. Hwd: 15”x14”x10”.

Return of the Osprey.

Nickerson Coin Obverse bronze cold cast. Bronze in urethane resin plastic. Chatham, May 2020. Hwd: 10”x10”x ½”. Cast 1/5 donated to the Chatham Conservation Foundation at its 2020 Annual Meeting. Cast 2/5 donated to the Nickerson Family Association on the 400th anniversary of the Pilgrims landing on Cape Cod.
Nickerson Coin Reverse bronze cold cast. C Bronze in urethane resin plastic. Chatham, May 2020. Hwd: 9”x9”x ½”. Cast 1/5 donated to the Chatham Conservation Foundation at its 2020 Annual Meeting. Cast 2/5 donated to the Nickerson Family Association on the 400th anniversary of the Pilgrims landing on Cape Cod.
William Nickerson bronze cold cast. Bronze in urethane resin plastic. Chatham, May 2020. Hwd: 9”x6”x3”. Cast 1/5 donated to the Chatham Conservation Foundation at its 2020 Annual Meeting. Cast 2/5 donated to the Nickerson Family Association on the 400th anniversary of the Pilgrims landing on Cape Cod.
Josiah Mayo bronze cold cast

Selfie #2: Wink bronze cold cast

Selfie #2: Wink bronze cold cast. Bronze in urethane resin plastic. Chatham, May 2020. Hwd: 9”x6”x3”. 
Larger Cycladic Figure bronze cold cast

Larger Cycladic Figure bronze cold cast. Bronze in urethane resin plastic. Chatham, May 2020. Hwd: 9”x4”x1.”
Athena bronze cold cast

*Athena bronze cold cast.* Bronze in urethane resin plastic. Chatham, May 2020. Hwd: 9”x5”x4”.
Venus of Laussel Relief #2

Venus of Laussel Relief #2. Fired clay with rose and clear glaze. Chatham, July 2020. Hwd: 11”x7”x4”.
Maquette for Angel of Progress

Maquette for Angel of Progress. Fired clay with underglazes. Chatham, July 2020. Hwd: 10”x 6”x 2”.
Angel of Progress

Maquette for Cherry Stump #2

Maquette for Cherry Stump #2. Fired clay with underglazes. Chatham, August 2020. Hwd: 4”x3”x2”.
Venus of Willendorf #2

Maquette for Cherry Stump #2. Fired clay with oatmeal and Albany slip glazes. Chatham, September 2020. Hwd: 10”x5”x5”. 
Wood Carver Torso

Maquette for Cherry Stump #1. Fired clay with clear glaze. Chatham, September 2020. Hwd: 12”x7”x5”.
Maquette for Cherry Stump #3

Maquette for Cherry Stump #3. Fired clay with underglazes. Chatham, September 2020. Hwd: 4”x2”x3”.
Maquette for Cherry Stump #4

Maquette for Cherry Stump #4. Fired clay with opal glaze. Chatham, September 2020. Hwd: 4”x2”x3”.
Saddle Curve. Cherry wood log, base from tree of Alan & Bill. Chatham, October 2020. Hwd: 22”x 11”x 16”.
Maquette for Deixis

Maquette for Deixis. Fired clay with oatmeal and Albany slip. Chatham, September 2020. Hwd: 5”x4”x4”.
Deixis

Deixis (Painting). 3 pieces of fired clay with clear glaze. Chatham, October 2020. Hwd: 12”x9”x6”.
Tall Man

Finger Bowl

Finger Bowl. Fired clay with blue ruttel glaze. Chatham, November 2020. Hwd: 3”x6”x5”.

Maquette for Oak Stump #1

*Maquette for Oak Stump #1* Fired clay with antique gold paint. Chatham, November 2020. Hwd: 3”x2”x2”.

*Maquette for Oak Stump #1* Fired clay with antique gold paint. Chatham, November 2020. Hwd: 3”x2”x2”.
Maquette for Oak Stump #2

Maquette for Oak Stump #2. 2 pieces clay. Chatham, November 2020. Hwd: 3”x2”x2”.
Pod. Oak wood log, base from tree of June in Harwich. Chatham, November 2020. Hwd: 26”x 18”x 14”.
Casts of Wood Carver Torso. 1 of 5 in plaster with antique gold and bronze paint on cherry base; 2 of 5 in plaster with bronze in shellac. Chatham, November 2020. Hwd: 12”x7”x5”. 
Cast of Tall Man

Casts of Tall Man. 1 of 5 in plaster with antique gold and bronze paint on oak base. Chatham, November 2020. Hwd: 25”x6”x3”.
Maquette for Holly Log

Notes and Comments
This volume presents information on Gerry Stahl’s sculpture and other artistic creations. There are reflections on his approach to sculpture, both aesthetic and technical. The volume concludes with a catalog of all the sculptural works in chronological order.