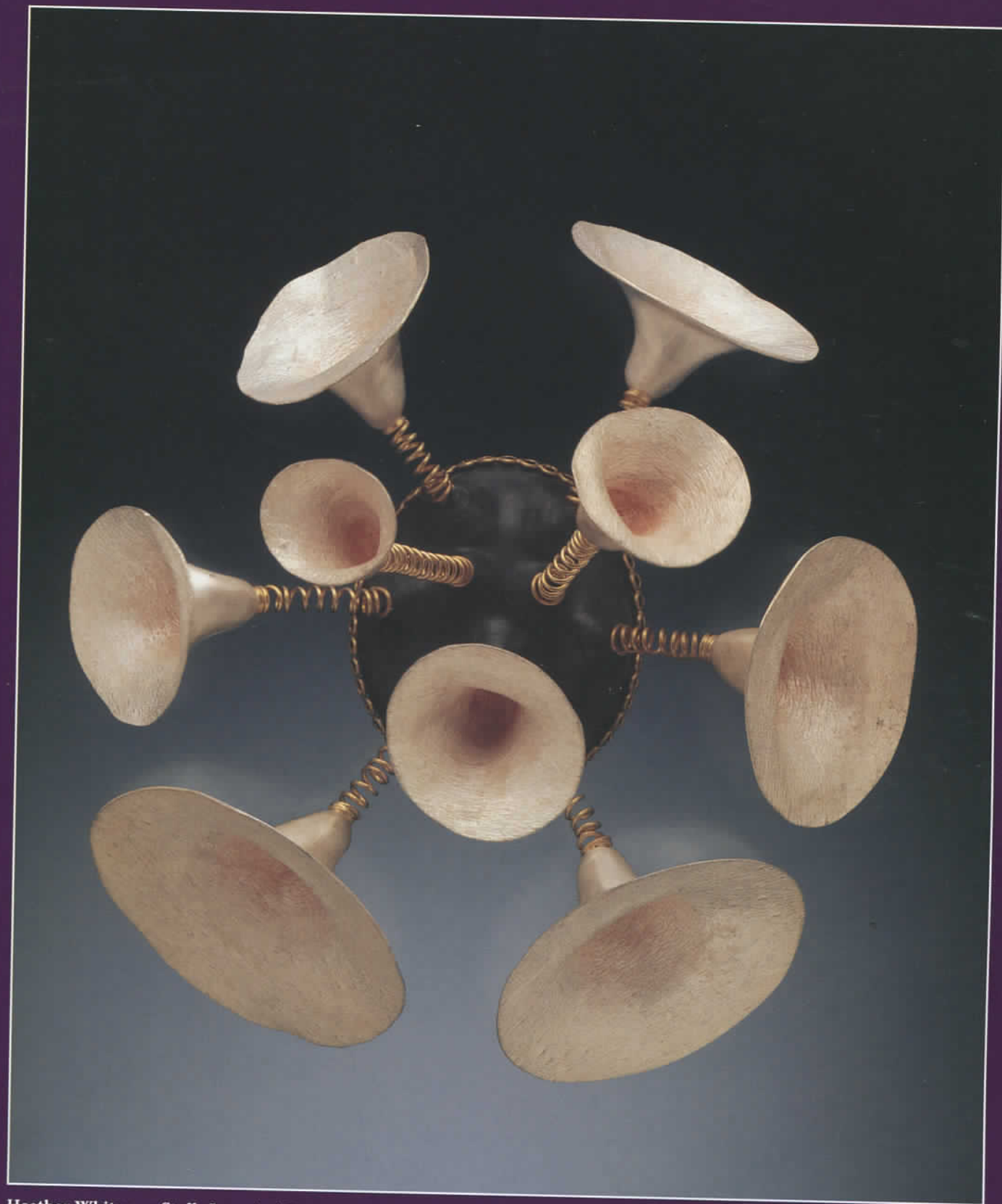




HEATHER WHITE VAN STOLK

■ Nature is always present in Heather White van Stolk's poetic jewelry. To concretely render her observations of fleeting natural objects, Heather uses methods as diverse as her musings. They can be as spontaneous as placing a flower between her lips, or as calculated as calibrating a carved wax, or casting a petal from an alginate mold.



Heather White van Stolk *Botanical Fiction: Trumpet Flower*, 2004
11.5 x 10 x 5 cm. 22-karat gold, sterling silver, nickel silver, oil paint, patina;
lost wax cast, formed, hand fabricated. PHOTO BY DEAN POWELL. COURTESY OF
MOBILIA GALLERY, CAMBRIDGE, MASSACHUSETTS

INTIMATE FICTION

At the beginning of each semester, I give my new students a questionnaire and ask them what experience they have had with metal. One of my favorite responses was, "I wrap things with aluminum foil." Although this student, Fran, had no real technical training, she was able to make a connection to metal in her everyday life. Her answer reflects how often we interact with metal and how dependent we are on it. The keys to our homes, the utensils with which we cook and eat, the cars we drive—these are all examples. The simple act of wrapping aluminum foil is also an example that metalworking can be as arduous or as basic as the maker desires.

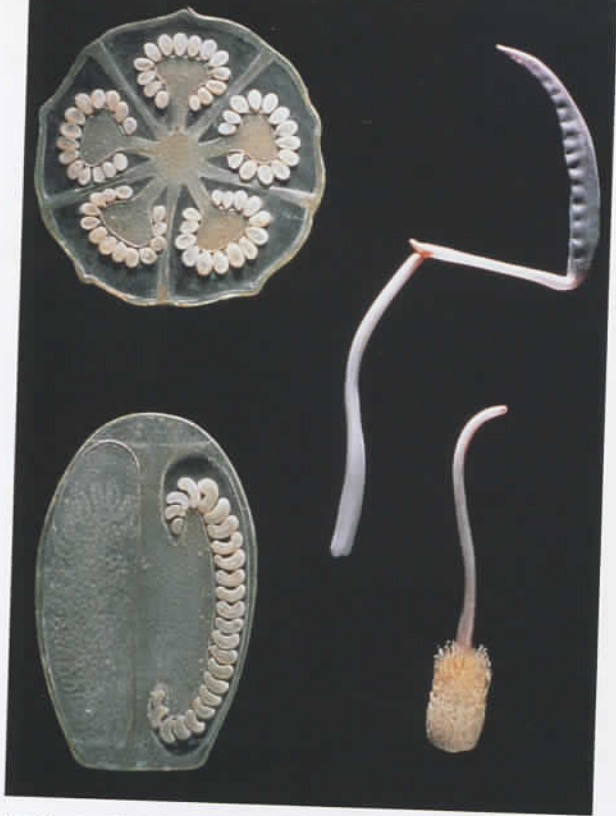
Several unique characteristics drew me to the field of metals and jewelry. Metal objects last for a long time. Works in gold, for instance, are virtually impervious to corrosion and can outlive civilizations.

Many metal objects are utilitarian, like a cup or scissors or a hairpin. These can be made simply or can be highly ornate and still maintain their function. They can also be ceremonial, transcending function into the symbolic. Metal also requires tools and a mastery of technical skills to give it shape and form. Many metal objects relate directly to the body, and what we wear on our bodies is a clear reflection of who we are or who we wish to be.

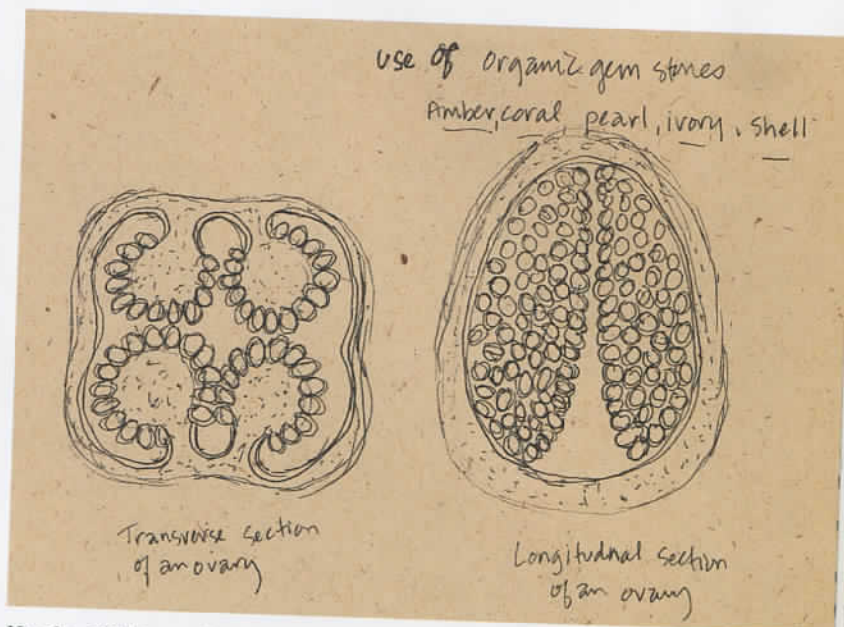
For five years I lived surrounded by nature in the Cuyahoga Valley of Northeastern Ohio. I maintained a beautiful flower and vegetable garden, relished an uncomplicated sense of time and space, and went about my days with ease. This feeling of openness gave me plenty of room to maneuver as an artist. During this time I made jewelry and objects that had clear historical references: a series of crowns hung from accordion-like retractable wall mounts, a larger-



Heather White van Stolk *Protean Cameo #9 and Protean Cameo #10*, 2000
Each, 5.5 x 5.5 x 1.5 cm. *Protean Cameo #9* (left): 22-karat gold, 18-karat gold, sterling silver, patina; die formed, lost wax cast, hand fabricated, embossed. *Protean Cameo #10* (right): 18-karat gold, sterling silver, nickel silver, patina, velvet; die formed, lost wax cast, hand fabricated. PHOTO BY KYLE DICK. PRIVATE COLLECTION



Starting in 1886, the glass artisans **Leopold Blaschka** and his son **Rudolph** worked for five decades to create more than 3,000 models of almost 850 plant species. This photo shows the reproductive portions of the glory-bush (*Tibouchina semidecandra*). Upper left: transverse section of ovary; Lower left: longitudinal section of ovary; Upper right: stamen, showing geniculate, or knee-shaped form typical of this family; Lower right: pistil
 PHOTO BY HILLEL BURGER © PRESIDENT AND FELLOWS OF HARVARD COLLEGE



Heather White van Stolk Sketchbook Studies

than-life copper hoop skirt, and many silhouette cameo brooches that embraced portraiture jewelry. These pieces were autonomous and functioned alongside the body. When I left this environment, my work began to change direction. It began to work in concert with the body.

I accepted a teaching position in the metals and jewelry department at Massachusetts College of Art and moved to Boston in the summer of 2000. I was living in a major city for the first time, and before I knew it, I was avidly seeking out nature. I made weekly pilgrimages to Harvard University's Arnold Arboretum, sometimes even just driving through it to satiate my nature thirst. I began photographing knurled pods left from magnolia blossoms, swollen rose hips, and any deformation on a plant or a tree that captured my attention. Each week I was amazed at how the arboretum was completely transformed as nature carried out her cycle.

At Harvard's Peabody Museum, I studied a breathtaking collection of incredibly detailed glass flowers by Leopold Blaschka and his son Rudolph.

My favorites were the transverse and longitudinal slices of the reproductive sections of flowers: their ovaries. Magnified many times, these studies became abstract, like biomorphic pancakes with bold shapes and patterns inside each perimeter. It is the change in scale that transforms these slices beyond products of virtuous observation. The arboretum and these glass flowers became my "city gardens."

Initially, without a studio to work in, I began carving wax in my kitchen. Akin to peeling cucumbers and only requiring simple tools, wax carving was the best process for me to create organic forms. Starting with many small blocks of hard, dense, green File-a-Wax, I used a spade bit to drill holes to accommodate a finger. Once I had made a number of ring "blanks," I began carving, slowly removing layers of the wax. Since I wanted these rings to be relatively large and high-karat gold is very heavy, I needed to carve the wax forms thinly, between 18 and 20 gauge. Calipers can be used to measure the thickness of the wax. However, for complex forms that cannot be calibrated, the thickness of the wax must be determined by a



Heather White van Stolk
Encroachment Ring #1, 2001
 3.3 x 2.4 x 2 cm. 18-karat gold; carved,
 lost wax cast. PHOTO BY DEAN POWELL.
 PRIVATE COLLECTION



Heather White van Stolk
Encroachment Ring #3, 2001
 4.2 x 2.5 x 2 cm. 18-karat gold, iolite; carved,
 lost wax cast, soldered, bezel set. PHOTO BY DEAN
 POWELL. COURTESY OF MOBILIA GALLERY, CAMBRIDGE,
 MASSACHUSETTS



Heather White van Stolk
Encroachment Ring #4, 2001
 2.7 x 3.2 x 2 cm. 18-karat gold, coral;
 carved, lost wax cast, soldered, bezel set.
 PHOTO BY DEAN POWELL. COURTESY OF MOBILIA
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visual estimation of its color: the thinner it is carved, the more translucent it becomes. This method is dependent upon educated guesswork. I used the lost-wax casting process to transform the wax models into gold and my goal of wearability was attained. The voluminous rings were light enough to wear.

When I have a ring form conceived in my mind or drawn in my sketchbook, sometimes I am able to carve it directly into the wax. Occasionally, I miss the idea entirely, ending up with a pile of shavings. At other times I create a form that establishes itself and reveals its potential to become complete. The latter method is my favorite because I find it exciting to begin a dialogue with a carving, learning from it as it emerges. Thus, I began making forms that emulated nature—a creative door I had not previously opened. The carvings became a way for me to synthesize organic forms and jewelry, with the hand providing a consistent platform. I titled these pieces *Rings from the Encroachment Series*. The rings began with a single bulbous egg shape, progressed through an increasing number of bulges, and naturally evolved

into pinky rings, wrapping their way around the finger. In the process, the band of each ring dissolved, consumed by the evocative protuberances. Stones, holes, and pearls functioned as ornament and as impulsive visual outbursts of elation, accentuating the sensual nature of the forms. I carved many other wax rings independent of this series, also cast in gold. Their titles suggest a singular action: *Ring with Mimicry*, *Ring Swallowing a Pearl*, *Ring Concealing a Row of Pearls*, and *Ring Growing Appendage*. In these pieces, the pearls and gemstones are engaged, yet frozen in the midst of their acts. These actions—mimicking, consuming, concealing, growing—are human, and they are also observed in plant life.

Gems and minerals gathered on my travels inspired my next series of work. For a long time this modest collection sat in a box on a shelf, full of potential, waiting for the right moment. Once I established a studio in Boston and unpacked, I looked at these stones with new insight. They were all in the rough as they are found in nature. I examined the crystalline structure of each stone and then



Heather White van Stolk *Ring with Mimicry*, 2002
3 x 3.8 x 1.3 cm. 18-karat gold, pink and red coral; carved,
lost wax cast, soldered, bezel set. PHOTO BY DEAN POWELL.
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Heather White van Stolk *Ring Swallowing a Pearl*, 2002
3.2 x 3.2 x 3.2 cm. 18-karat gold, pearl; lost wax cast.
PHOTO BY DEAN POWELL. COURTESY OF MOBILIA GALLERY,
CAMBRIDGE, MASSACHUSETTS



Heather White van Stolk *Ring Concealing a Row of Pearls*, 2002
3.2 x 3.2 x 2.6 cm. 18-karat gold, seed pearls; carved,
lost wax cast. PHOTO BY DEAN POWELL. COURTESY OF MOBILIA
GALLERY, CAMBRIDGE, MASSACHUSETTS



Heather White van Stolk *Study of Imperfection #2*, 2002
 4 x 5 x 1.2 cm. 18-karat gold, cavansite; lost wax cast,
 hand fabricated. PHOTO BY DEAN POWELL. COURTESY OF
 MOBILIA GALLERY, CAMBRIDGE, MASSACHUSETTS



Heather White van Stolk
Study of Imperfection #6, 2002
 7.5 x 1.3 x 1.5 cm. 18-karat gold, ruby; lost wax cast,
 hand fabricated. PHOTO BY DEAN POWELL.
 PRIVATE COLLECTION



Heather White van Stolk
Study of Imperfection #4, 2002
 6.5 x 2.5 x 1.5 cm. 18-karat gold,
 ettringite; lost wax cast, hand fabricated.
 PHOTO BY DEAN POWELL. COURTESY OF MOBILIA
 GALLERY, CAMBRIDGE, MASSACHUSETTS



Heather White van Stolk *Study of Imperfection #1*, 2002
 4 x 6.5 x 1.5 cm. 18-karat gold, azurite; lost wax cast, hand
 fabricated. PHOTO BY DEAN POWELL. COURTESY OF MOBILIA GALLERY,
 CAMBRIDGE, MASSACHUSETTS

used my fingers, dental tools, and an alcohol lamp to make mirroring shapes in soft 20-gauge sheet wax. Unlike hard File-a-Wax, sheet wax becomes malleable even with the heat of one's fingertips. Instead of removing material (carving) to achieve a shape, I began to sculpt the wax additively. I textured, scored, bent, poked, and prodded both sides and heat-welded seams to capture the form of each stone. I also altered the scale, making some waxes larger and some smaller than the original stones. Once the waxes were cast in gold, I played with their formal attributes, experimenting with different compositions and gestures that emulated the original gems and minerals. When I was satisfied, I soldered the gold pieces together, constructed the pin backs, and set the gemstones. I used familiar stones, like rubies, and more obscure ones, like glow-in-the-dark green fluorite, yellow ettringite, and turquoise cavansite. The stones and minerals in these brooches appear as they are found in nature: perfect in their rawness. Gold, that beautiful material of great value, mimicked the shape of each irregular gemstone. The cast and assembled brooches resulted from a journey of observation, where each stone or mineral was my guide to unconventional beauty.

In the spring of 2003 I spent a wonderful month saturated in European jewelry-making methodologies. I co-organized an academic travel course for MassArt students to study with jeweler Ruudt Peters in Ravenstein, Holland. There we created our own idiosyncratic laboratories at our benches and worked like a bunch of mad scientists. The workshop challenged our American preconceptions about the way we go about making jewelry and the limitations we impose on the materials we use.

That same spring, a Marion and Jasper Whiting Foundation Grant allowed me to attend KORU1, an international conference in Lappeenranta, Finland, where I participated in a workshop with Dutch jeweler Fillipine de Haan entitled "Bringing the Pieces Home." The focus of the workshop was to create a context or "home" for our jewelry. It embraced what many people would call "difficult" jewelry, jewelry that did not adhere to the accepted parameters of wearability. We were not designing jewelry intended for sale. Instead, we were telling fragments of our stories through jewelry and making jewelry driven by our individual artistic ideologies. I began placing household objects directly on my

body as adornments. Since these jewelry pieces lasted only a few minutes, I documented them with photographs.

When I returned to Boston, I resumed taking brisk morning walks around my neighborhood, searching for and picking up vegetation that had managed to sprout and thrive despite the surrounding concrete cityscape. As my botanical collection grew, I realized that I didn't want to recreate the specimens in metal; I wanted to exist with them. So I pursued



Heather White van Stolk *Nature as Jewelry #5*, 2004
Digital photograph



Heather White van Stolk *Nature as Jewelry #11*, 2004
Digital photograph

the theme of nature and the body, specifically botany and sensuality. This exercise was a logical extension of my past works of jewelry using ornamentation to interpret nature. The photographs from the *Nature as Jewelry* series (page 105) are of fleeting, one-minute pieces of botanical jewelry, some enigmatic, all simply preserved by a photograph.

Although the immediacy of photography was a refreshing contrast to the often time-consuming aspects of metalworking, my main interest was in permanent wearable jewelry, so I returned to wax-working and casting. My simultaneous investigations in photography and wax-working influenced each other. The influences of botany and growth on the body evolved into my observation of the body itself. This was my first time working directly with the figure, a major shift in my work. My own body was the most immediate source, so that is where I began. I started to take alginate molds of fragments of the body and of sections of skin. My navel, my teeth, my fingers, my eyes—all became the “paint,” and jewelry was my “canvas.” I made hundreds of waxes from the alginate molds and methodically laid them out on my workbench (see photo below). By rearranging the waxes and carefully assembling them with hot-wax tools, I began forming flowers. I called the flowers “corsage brooches” because of their large size and the self-consciousness one has when wearing them. They are intended to be construed both as flower forms and as synthesized derivatives of the human body. I wanted

these brooches to be beautiful and to establish visually poetic narratives in the tradition of Milagros, Victorian mourning jewelry, enameled portraiture jewelry, and carved cameos, in which reconfigured fragments of the body are used as ornamentation.

Botanical Fiction: Milk Flower is a graceful sprig of an imaginary flower inspired by my maternal lineage. This piece connects my grandmother, my mother, and me in a very intimate way, and I had to conjure up courage to make it. As the three of us cooked on Thanksgiving Day, I approached them with the project. I showed my mother and grandmother a drawing, explained my idea, and asked them if I could take alginate molds. Surprised but curious, they agreed. We giggled like girls as we secretly carried out our mission. The funnel-shaped forms in *Milk Flower* are our nipples that I molded in the kitchen and later cast in sterling silver. To balance the composition of the piece, I incorporated a closed flower bud toward the top, a foreshadowing of my daughter who was born nine months later.

I created other corsage brooches that use visual recognition in a similar manner with different fragments of the body. For *Botanical Fiction: Trumpet Flower* (see page 99), I cast individual funnel-like flowers from an alginate mold of my belly button. I soldered gold wire springs to the end of each funnel and attached them to a nickel-silver base with a decorative gold border. When the piece is worn, the trumpet flowers wriggle on their springs and respond to every movement of the wearer. The petals in *Botanical Fiction: Black Eyed Susan*, were made from a mold of my closed eyelid. Once in wax, I shaped each petal with embroidery scissors. In the final sterling silver piece, I brought out the detail of the skin with a dark liver of sulfur patina. The knobby orange-yellow center of *Botanical Fiction: Black Eyed Susan* is polyurethane. This material allowed a realistic rendering and kept the piece lightweight.

Around this time I became fascinated with beauty marks, unique marks on the skin that are usually textured and pigmented and bumpy. I began inviting studio mates into my studio and later approached strangers who sported magnificent beauty marks on their faces, arms, or other visible places. Much to my surprise, every person was willing to participate in my project. I molded their blemishes with alginate and cast them in 22-karat gold. The final castings were extraordinarily textured



Heather White van Stolk Waxes Taken from Alginate Molds
PHOTO BY DEAN POWELL



Heather White van Stolk

Botanical Fiction: Milk Flower, 2004

20.5 x 11.5 x 4 cm. Sterling silver; lost wax cast, hand fabricated. PHOTOS BY DEAN POWELL. COURTESY OF MOBILIA GALLERY, CAMBRIDGE, MASSACHUSETTS



Heather White van Stolk

Botanical Fiction: Black Eyed Susan, 2004

14 x 14 x 2.5 cm. Sterling silver, polyurethane; lost wax cast, hand fabricated. PHOTOS BY DEAN POWELL. COURTESY OF MOBILIA GALLERY, CAMBRIDGE, MASSACHUSETTS



and beautiful. I soldered posts on the reverse side so they became wearable pins, and I called them *Marks of Beauty*.

Botanical Fiction: Chrysanthemum Brooches began from impressions of teeth. I made a few dozen waxes from alginate molds and carefully heat-welded them together to create a flower. I realized that if I cast this wax mold in metal, the flower would be too heavy to wear. A colleague at MassArt suggested that I experiment with polyurethane. Casting polyurethane is similar in principle to casting metal, but it doesn't require a centrifuge or a torch. Instead, you must have a very good ventilation system, protective gear, disposable cups, and mixing tools. I experimented with the polyurethane and cast almost 40 flowers. In order to create colors that were integral to each piece and would not wear off like a surface treatment, I pigmented each batch of polyurethane with a few drops of concentrated paint in an array of sweet, confectionary-like colors. I made fine silver and nickel silver backings and bezel-set each flower. When they were exhibited as a group, the chrysanthemums became a colorful field of wallflowers.

Heather White van Stolk

Botanical Fiction: Chrysanthemum Brooches, 2004
Each, 7.5 x 7.5 x 4 cm. Pigmented polyurethane, fine silver, nickel silver; cast, hand fabricated. PHOTOS BY DEAN POWELL. COURTESY OF MOBILIA GALLERY, CAMBRIDGE, MASSACHUSETTS



Heather White van Stolk *Eight Marks of Beauty, 2004*
Largest, 1.9 x 0.6 cm. 22-karat gold; cast. PHOTO BY DEAN POWELL

As my work continues to develop I find that circumstances are not arbitrary; in fact, they act as an ideation filter, shaping and informing my jewelry. Molding and casting from the body is an intimate process and the recent brooches are among my most personal investigations. They were made over the course of 40 weeks, and were clearly informed by the transformative experience of pregnancy. Ultimately, these pieces of jewelry are fragmentary inventions that create a poetic bridge between the botanical and the biological.



HANDS ON

Heather demonstrates two different approaches to lost wax casting.

The reductive approach of carving and texturing a wax form is illustrated in her first project, a sterling silver ring.

Next, Heather uses alginate to create detailed impressions directly from the body. Once dipped in molten wax, these negative shapes become positive molds that are cast in metal.

Lost Wax Casting



1 A block of File-a-Wax was drilled with spade bit.



2 I cut the block of wax with a Japanese wood-working saw, but this can also be done with a band saw, scroll saw, or jeweler's saw.



3 The shape of the ring was mapped out with a scribe and templates.



4 A spiral blade was used to saw the wax into a ring shape.



5 I used a coarse four-in-one file to roughly shape the wax ring.



6 The wax ring was further refined with a victory file.



7 I smoothed the wax ring with a sanding sponge.



8 The interior of the wax ring was hollowed out with a wax ball bur attached to a flexible shaft.



9 Texture was applied to the outside surface of the wax with a flexible shaft and bur.



10 I used a heated dental tool to attach sprues to the wax ring. I chose to place the sprues internally so the texture would not be disturbed.



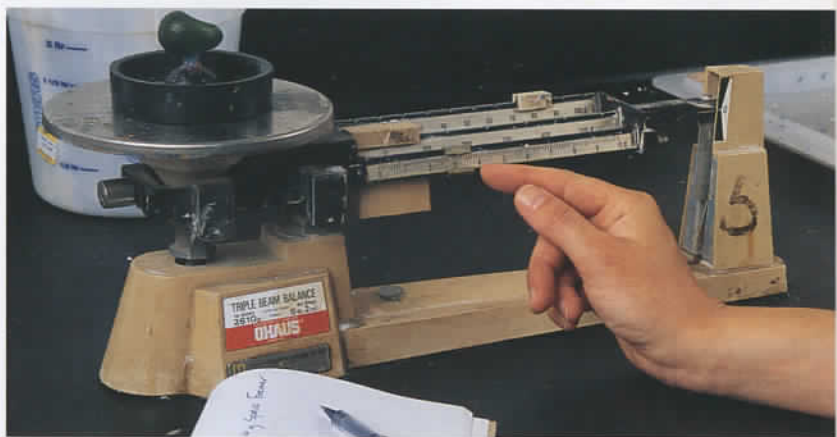
11 The sprues that join at the bottom were smoothed out with hot dental tools.



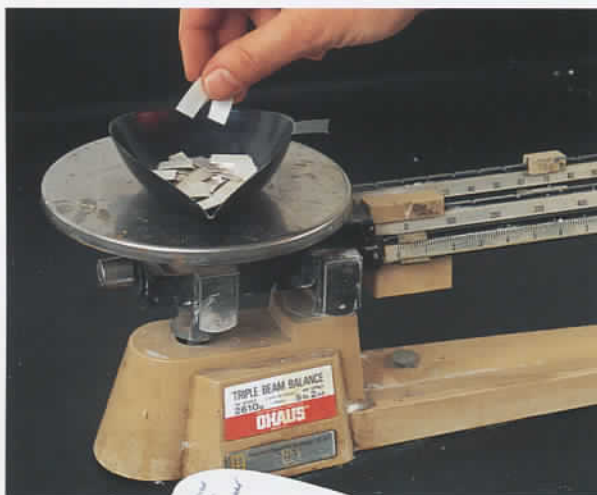
12 Here, I attached the wax ring to the sprue former (black rubber base) with a hot dental tool.



13 A de-bubbling solution composed of denatured alcohol, water, and liquid soap was painted on the wax, creating a smooth surface for the investment to glide over.



14 I used a triple beam balance scale to weigh the wax and sprue former. To calculate the weight of the wax, I subtracted the weight of the sprue former from the combined weight of the wax and the sprue former. The flask (the steel cylinder) was then fitted into the sprue former.



15 Once the weight of the wax was determined, it was converted into the weight of the metal being used, sterling silver in this case. To do this conversion, the weight of the wax was multiplied by the specific gravity of the metal (the specific gravity of sterling silver is 10.4), and then approximately 10 grams extra metal was added for the "button." The "button" is the last area of the mold to be filled with molten metal. It is formed by the hollow left by the sprue former and will later be cut off along with the sprues. The photo shows the metal being weighed. This material is put aside until it is time to cast.



16 The powdered investment was weighed.



17 I sprinkled the powdered investment into a rubber bowl filled with the predetermined amount of water. This step is very similar to mixing plaster. The ratio of water to powder is 40 to 400, and it has a working time of approximately 9 minutes. Measuring can be done by eye but is not advisable. I prefer to use the mixing chart provided by the investment supplier. The chart predetermines the correct ratio of investment to water for any size flask. This ratio is precise and yields the strongest mixture to withstand expansion and contraction in the kiln, and very little is wasted. In this case, my flask was 3 inches (7.6 cm) high and 2½ inches (6.4 cm) in diameter. I used 12 ounces (340.3 g) of investment and 136 cubic centimeters (cc) of de-ionized room-temperature water. For this step I used an ounce scale to weigh the investment and a graduated cylinder to measure the water.



18 The investment was carefully hand-mixed with a spatula to limit the introduction of bubbles. Then, while still in the rubber bowl, the investment was de-bubbled in the vacuum.



19 I poured the investment into the flask. The flexible rubber bowl was squeezed into a pouring spout.



20 After the flask was filled with the investment, it was vacuumed again to remove any bubbles that may have gotten trapped inside or along the wax model. The flask was then put aside for the investment to cure. Once cured, the rubber base was removed, and the flask was transferred into a kiln for a “burn-out” cycle. This process slowly melts the wax, combusts it completely, and then steadies the investment to the optimum casting temperature (about 500°F [260°C] lower than the melting temperature of the metal).



21 The room-temperature empty crucible was warmed with a torch.



22 The metal was carefully placed into the hot crucible.



23 I stirred the molten metal with a carbon stirring rod, which removed any impurities. A pinch of powdered casting flux was added.



24 A studio assistant removed the hot flask from the kiln while I kept the metal molten.



25 The hot flask was placed in the cradle of the centrifuge while the metal was kept molten. The crucible was pushed forward flush to the flask. The cradle was cocked to a 90-degree angle. The centrifuge was engaged to spin counterclockwise, forcing the molten metal to flow from the crucible into the empty cavities in the flask.



26 Once the flask was removed from the cradle, the "button" became visible. The button is the extra amount of metal that fills the cavity made by the sprue former. Glass-like casting flux appeared on top of the button.



27 Once the metal button solidified, I quenched the hot flask in water. Because it actively seeks water, the investment rapidly dispersed into the bucket.



28 When the "lost wax" casting was revealed, the metal emerged in the exact form of the original carved wax.

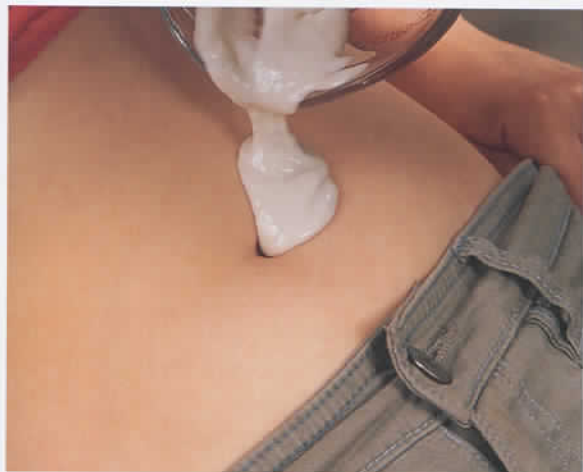


29 Here are three rings from the *Ovum* series, one each in gold, sterling silver, and bronze. The silver ring still has the metal sprues and the button attached that will be cut off and firescale that will be sanded.

Casting from an Alginate Mold



1 The powdered alginate was mixed with water and placed on a vibratory table for 45 seconds to remove air bubbles.



2 The alginate was poured directly onto the skin.



3 After approximately 2 minutes, the alginate cured and was peeled off the belly button.



4 This is the alginate, now referred to as the negative mold, next to the belly button.



5 I dipped the alginate mold into a double boiler filled with molten wax.



6 The positive wax layer was peeled away from the alginate mold to reveal the perfectly formed belly button.



7 In this demonstration, the alginate was poured directly onto the skin over a closed eyelid.



8 After approximately 2 minutes, the alginate cured and was peeled off the eyelid.



9 The cured alginate, now the negative mold, was dipped into a double burner of molten wax.



10 I removed the positive wax layer from the negative alginate mold to reveal the perfectly formed eyelid. An air bubble that formed in the alginate appears as a bump on the wax eyelid.

11 After I cut and formed the wax positives, they were sprued, invested, vacuumed, and cast into metal using the lost-wax process.



ABOUT THE ARTIST

Heather White van Stolk lives in Boston, Massachusetts, where she is an Associate Professor of art in the Metals and Jewelry Department of the Massachusetts College of Art. She has also taught at Myers School of Art, University of Akron, Akron, Ohio; Penland School of Crafts, Penland, North Carolina; and the State University of New York, New Paltz, New York.

In 1994, Heather received an MFA in metals from the State University of New York, New Paltz, New York. She received her undergraduate degree from the Rhode Island School of Design, Providence, Rhode Island. Heather is a recipient of a Marion and Jasper Whiting Foundation award, and the Excellence in Crafts award from The Society of Arts and Crafts, Boston, Massachusetts.

Heather's work is in the permanent collection of the Museum of Fine Arts, Boston, Massachusetts, and the Smithsonian Art Museum's Renwick Gallery, Washington, D.C. Solo exhibitions have included *Marks of Beauty* at the Sybaris Gallery in Royal Oak, Michigan and *Intimate Majesty* at the Cleveland Museum of Contemporary Art, Cleveland, Ohio. Selected group exhibitions include: *Micromegas*, Bavarian Association for Arts and Crafts, Munich, Germany; *Sensuous Matter*, June Fitzpatrick Gallery, Maine College of Art, Portland, Maine; *Evocative Objects: Contemporary Studio Metalsmithing and Jewelry*, Bannister Gallery, Rhode Island College, Providence, Rhode Island; *The Art of Gold*, curated by Michael W. Monroe, multiple venues; and *Making Meaning: Metalsmithing, Objects and Contingencies in the Next Millennium*, Elaine L. Jacob Gallery, Wayne State University, Detroit, Michigan. Her work has been published in the magazines *Metalsmith*, *Sculpture*, *American Craft*, and *Lapidary Journal*, and in the books *500 Brooches* and *1000 Rings*.