## When the Grit Hits the Fan

## Claes Oldenburg, Pop, and the conservation of the everyday By Melissa Horn

This year marks the twentieth anniversary of the Judith M. Lenett Memorial Fellowship, a joint project of the Williamstown Art Conservation Center, Williams College, and The Sterling and Francine Clark Art Institute. Each academic year, the Lenett Fellowship is awarded to a second-year student in the Williams College Graduate Program in the History of Art, to explore issues of art conservation in the field of American art. Working closely with WACC conservators, each fellow spends two semesters conserving and researching an American art object. This year's Lenett Fellow, Melissa Horn, worked on Model for Soft Fan by Claes Oldenburg, under the guidance of Leslie Paisley, WACC head paper conservator, and Hélène Gillette-Woodard, head objects conservator. The project culminated in a public lecture by Ms. Horn at the Clark. The article below is adapted from that presentation. The full text of the original lecture is available at www.williamstownart.org.

magine this: you walk into a museum and see a sculpture on a pedestal—*Model for Soft Fan*, the label says, from 1965, by the artist Claes Oldenburg. It depicts an oscillating fan, with the usual blades, head, and body, but it looks broken. In fact, it looks beyond broken: it seems defeated, demoralized, crushed. But of course, it's supposed to be that way. Oldenburg worked during the 1960s, when a playful new breed of Pop artists pulled, stretched, and broke everyday objects to subvert and expand what we call art. The drooping fan's broken appearance was part of the work's artistic argument: it was, in other words, *intentional*.

Now imagine you walk into an art conservation lab and see the same fan. You know the work is there because it needs treatment—it must be broken. But wait. Doesn't Oldenburg play with brokenness? How do you know which parts need fixing? If an artist meant for a piece to look damaged or distorted, what does it mean to repair it?

In the conservation lab, such theoretical quandaries about an artist's intention take on a practical urgency. These sorts of questions were, indeed, exactly what entered my mind when I first encountered Oldenburg's *Model for Soft Fan* at the Williamstown Art Conservation Center.

The work is a maquette, a kind of three-dimensional sketch, for two much larger works from 1967, called *Giant Soft Fan* and *Giant Soft Fan, Ghost Version*. There are a lot of differences between the maquette and the finished works. Our fan—the model, owned by the Smith College Museum of Art in Northampton, Massachusetts—is approximately two feet high. The finished versions are ten feet high. Our fan is mostly paper and cardboard. The larger fans are predominantly vinyl. Maybe most significantly for conservation purposes, the finished versions hang by a chain from the ceiling, whereas our piece is adhered to a base.

Yet, curiously, at one point our model was more similar to the final work than when it came to us. In the object file for the fan, with past conservation reports and records of ownership, we received an odd photograph of our maquette hanging from a wall, tipped over backwards. We could only guess at why it was exhibited this way. Did it fall over when it was upright and just look better hung up? Or did the previous owner know something about Oldenburg's intention that we didn't? Regardless of the reason, it was clear to the curators at Smith that gravity wasn't doing the model any favors.

When the college museum accessioned the piece in 1979, it was in danger of being ripped off its base by own weight. In response to this threat, Smith curators had the work conserved at another lab in the early 1980s. There, conservators performed major repairs to return the piece to its standing position. Over the intervening three decades, however, the fan had slumped forward again. The main aim of our treatment was to stabilize the structural integrity of the piece, to reverse the fan's forward slump and help prevent it from sagging in the future.

A second major task was both cosmetic and chemical. The piece was covered with a mysterious, dust-like white coating. On closer inspection, the coating proved to be a chemical efflorescence that had bloomed out from the paint itself. This was the first issue I addressed. Because the maquette is made



primarily of paper elements, I worked with Leslie Paisley, head of the WACC paper lab. She and I tackled the efflorescence.

Before beginning the treatment, we analyzed the sculpture to understand how Oldenburg had fit all the elements together. The fan's base is constructed of a brown kraft-paper bag, turned upside down and stapled to a cardboard ring. Oldenburg then opened the bottom of a second bag to make a cylinder and placed a circle of cardboard on either end of the tube to form a kind of drum. Stapled shut, this construction formed the head or motor housing of the maquette. To make the fan blades, Oldenburg stapled four cardboard ovoids to a central cross-shaped piece of cardboard. Finally, the loopy shape that encircles the work represents the fan's electrical cord and is made from bits of clothesline held together by electrical tape.

X-ray photography revealed that Oldenburg attached the blades to the head by running a wire through both elements, which he secured by wrapping around a nail on each side to pull the wire taut. The X-ray also exposed a bright cross shape attached to the blade construction and concealed by cardboard and electrical tape; this turned out to be a metal insert created by the previous conservators to give the blades added support.

Inspection revealed a second main element of that previous treatment as well: additional internal support for the paper bag that forms the fan's base. The conservators had lined the original bag with canvas to stiffen and protect the brittle kraft paper; they then filled the cavity with polyethylene microbeads, which are like tiny packing peanuts, giving the internal bag more mass and greater support in its upright position.



Detail of stearic acid "bloom" caused by crystallized fats in the oil-based paint.

Now that we understood how the sculpture was made, we turned to cleaning the white efflorescence. An efflorescence is the dried remnants of a substance that has lost it moisture; in this case, it was clearly something associated with the model's paint layer. The pattern of the bloom precisely followed the original drip pattern of the paint. A detail photograph of one area showed how the material crystallized on top of the paint layer, thin in some places, but very thick in others, like little piles of snow.

Analysis suggested that the crystalized material was stearic acid, a saturated fat found in cocoa butter and shea butter. What was this compound doing on the surface of our sculpture? Interestingly, research revealed that ours was not the only Oldenburg to have developed this kind of bloom. In 2009, a sculpture called *Floor Cake* made of painted canvas showed the same powdery efflorescence on the cake's chocolate drop. Both our sculpture and the chocolate drop were painted with an oil-based paint containing synthetic stearic acid. The powdery efflorescence on these works is the result of the stearic acid migrating out of the paint and crystallizing on the surface of the sculpture.

(There is an irony to this efflorescence appearing on the cake sculpture's chocolate drop. The same thing happens to the fat in actual chocolate as well, as anyone knows who has opened an old bag of chocolate chips and found they have turned all weird and white. This phenomenon is called chocolate bloom, and it's basically the same process: the cocoa fat migrates out of the chocolate compound it had been a part of and appears on the surface.)

Alkyd resin paints like the one on *Model for Soft Fan* were manufactured as inexpensive paint for artists, but they were also formulated as house paint. In fact, pretty much every material in the maquette could have been purchased in a hardware store. Oldenburg chose to work with common materials manufactured to be inexpensive rather than last a long time. This choice has had dire effects on the longevity of his work. The phrase conservators use to describe a material that deteriorates due to internal, intrinsic factors (as opposed to external forces) is "inherent vice." Very often, artists don't realize that a material is inherently unstable. Most of the materials in the fan maquette possessed this problem.

Kraft paper bags, for example, like the ones Oldenburg used, are made from ground wood pulp, which contains high amounts of a compound called lignin. Lignin is acidic and over time makes paper brittle and dark (think of old newspapers). Corrugated cardboard is similarly acidic. Plastics, like the electrical tape that covers parts of the fan, are disastrous from a conservation standpoint. Plastics constitute a huge area of research in the conservation of modern and contemporary art, as artists used plastics with increasing frequency into the twentiethcentury and our own. "Plastic" is a single word used to describe thousands of different types of synthetic compounds, each of which can respond differently to aging. Artworks made from plastic might warp, crack, become soft and sticky, or crumble into powder. Plastic artifacts and works of art aren't just dangers to themselves, but to things around them: the gases certain compounds give off as they degrade can, for instance, corrode metal.

I cleaned the bloom with a fluffy brush made from goat

mind, it was definitely Oldenburg's intention that the fan never look too perky.

What did the X-rays tell us about the fan's structural weaknesses? Because of how the piece was slumped over, the weak spot appeared to be at the neck, but in truth it was in the joint where the blades met the head. The cross-shaped piece of metal from the previous treatment was very thin, more like foil. Over time, it had flexed and caused the slumping. We needed to figure out another way to support the blades.

Working now with Hélène Gillette-Woodard, head of the WACC objects lab, we decided on two options for the structural treatment. The first involved contracting an external mount maker to fabricate a thin piece of metal that would be

hair, working in broad, round strokes to gently dislodge the majority of the powder, which I then vacuumed off. Because it was crystallized oil, the bloom made the brush feel thick and greasy, like dog fur. Using a variety of brush shapes and sizes with stiff bristles to navigate the work's small



Lenett fellow Melissa Horn in the WACC objects department.

permanently attached to the piece's pedestal. The top of this brace would be soldered to two horseshoe-shaped pieces of metal that would hold up the blades through a slight compression. This solution would be minimally invasive to the piece, which was a benefit, but it would also be quite visible to viewers.

In option two,

crannies, I worked my way into the cardboard's corrugated ridges, underneath the nails at the front and back of the plywood base, and along the long, thin folds in the fan's body.

Though I removed all the white particulates, we can't know whether the paint is finished weeping stearic acid or if the bloom will reappear. Only time will tell if the sculpture will need to be cleaned of its fatty acids again in the future.

By this time, the fan and I had spent several weeks spent together in the lab. We had gotten to know each other pretty well, and after a while I started to think of "it" as a "him." I felt a kind of sympathy: he had had a rough life, and even besides the efflorescence and the mechanical problems, he had the pathetic air of a sad sack, Willy Loman-type character. It was clear that in repairing the fan we needed to preserve its personality. To my we would fabricate a new aluminum cross-shaped support, the same shape as the earlier piece, but thicker and stronger. This cross-shaped insert would be totally hidden from sight and blend in with the piece. We would still contract an external mount maker to fabricate supports for the blades made of curved metal, which would be attached with a nut directly to the new cross support. The mount would be much smaller and less visible, but we would have to dismantle the artwork to install it, a much more invasive treatment. The more invasive a procedure, the more inherent the risk that something might go wrong. Smith College chose this option anyway, for, despite being more risky, it would provide the best support for the piece in the long run.

Hélène unwrapped Oldenburg's original wire from one of the *continued on page 18*