

Art: Design: Culture

Performance Art: The Next Wave

# Glass

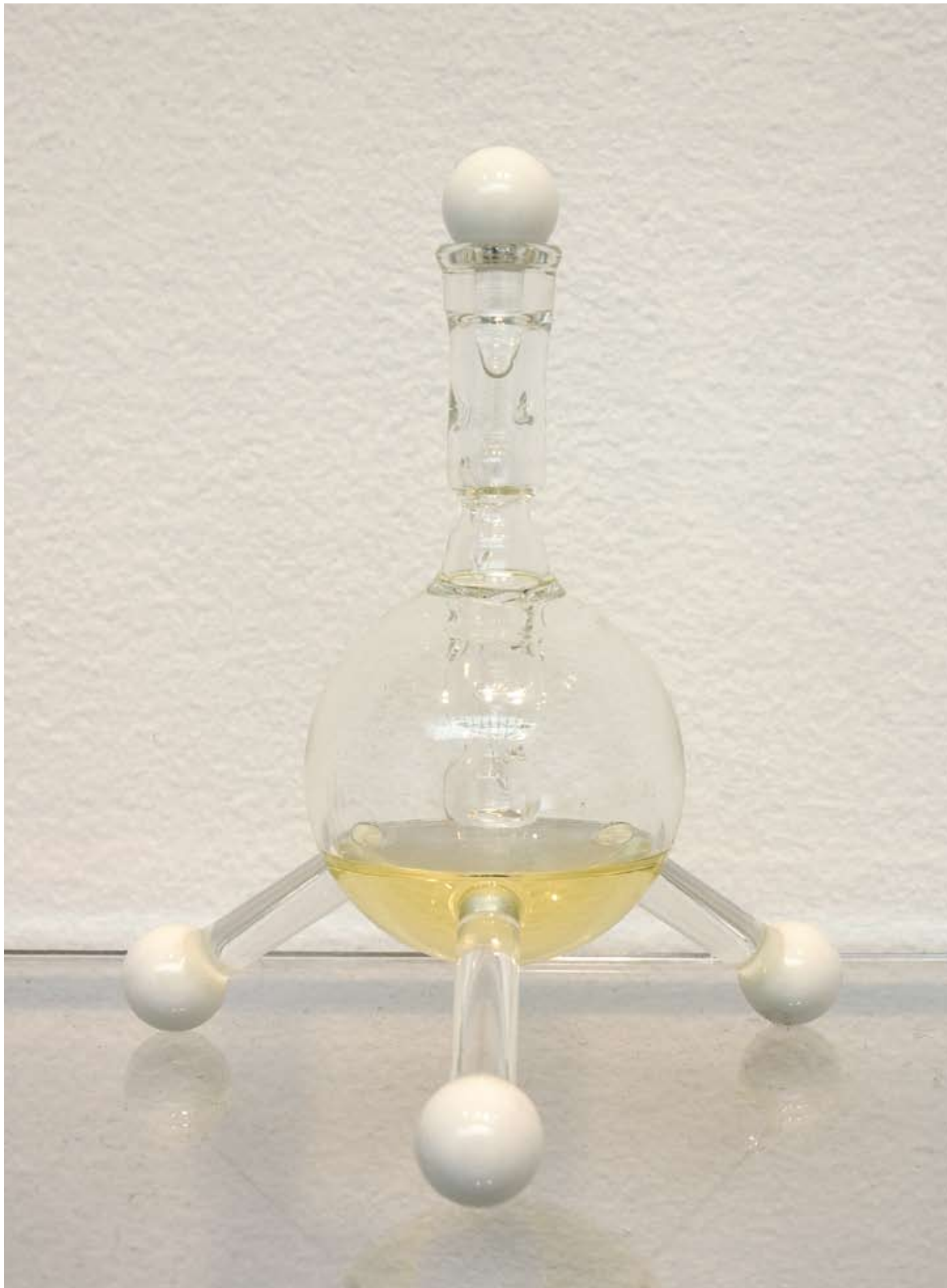
The UrbanGlass  
Art Quarterly

Burnt Asphalt,  
the Butter Eaters,  
Cirque de Verre

The B Team Revisited

Artists Who  
Embrace Science

Etsuko Ichikawa:  
**Playing  
with Fire**



Carrie Patterson, *Single Perfume Distillation Bottle (white)*, 2008. Borosilicate glass with perfume. H 5, W 4 ½, D 4 ½ in.

# The Art of Inquiry

Contemporary artists are pulling apart the intertwined history of glass in science and in art, with provocative results.

By Annie Buckley

The relationship between science and glass can be traced back to the earliest attempts to master the material's formulation in ancient times. By the Middle Ages, recipes for colored glass had become as closely guarded as any alchemical secrets. Today, as scientists push glass to new limits for conducting light in fiber optic cables or spanning larger distances in architectural glass panels, the race for knowledge about this unique material continues.

The history of glass as art is equally lengthy—stretching from ancient glass beads, to Syrian tablets iterating instructions for glassblowing, to the storied glass factories of 16th-century Murano, where keeping techniques exclusive was the key to this lucrative industry. Yet while the history of making objects from glass is fairly clear, the art world's reluctance to accept objects made from glass for consideration as sculpture is far murkier.

Scientific innovations can improve the clarity, conductivity, and reflectivity of glass, yet they are powerless against the sometimes irrational hierarchy of contemporary art, which is not bound by the logic of the material sciences. As fellow contributor William Ganis pointed out in an essay (*GLASS* #110, p. 80), the term "glass artist" remains a marginalizing and dismissive one. Ganis articulates the vagaries and complexities leading to this designation, while pointing out that some artists working with glass have gained acceptance into the wider world of contemporary art through the monumental size of their work or its socio-cultural implications.

The undeniable beauty of glass is often cited as one reason for this separation (too much beauty is circumspect in the art world); craft has also been implicated (by tradition, art and craft are foes). But there is another reason: Glass is weighted down by its historic utility, aided in no small part by its frequent use in the field of science. Interestingly, a number of artists working in glass are drawing on just this interdependence between science and glass to make visually stunning and thought-provoking works that take on longstanding preconceptions and biases.

For more than two decades, accomplished teacher and artist Jocelyne Prince has used glass in the service of a fascinating and moving study of the ephemeral. Yet her website opens with the phrase, "Glass is my material, not my tradition." Prince is not alone in her keen awareness of the negative associations of the term "glass artist." Mark Zirpel, whose primarily glass works are inspired by nature and the environment, makes a similar point when discussing his work in interviews. In a sign of a generational shift, emerging artist Carrie Paterson, who has been investigating art and science in mixed-media works and recently collaborated with a technical glassblower for a new project, is less reticent about her relationship to the material. Perhaps it is the actual labor of blowing glass that seems suspect to an art world focused on concept and fabrication, but the preference for fabrication versus developing one's own craft could swing back the other way as artists and their audiences adjust to a worsening economy. Regardless of process, each of these artists explores the material and its relationship to science in diverse ways, yet with results that are undeniably sculptural.



## JOCELYNE PRINCE: Science Subverted

THIS PAGE  
*Slide Library* (partial  
installation view), 2002 to  
present. Glass, wood, light.  
H 82 ½, W 71, D 11 ¾ in.  
(installation)

PHOTO: PAUL LITHELAND

OPPOSITE  
Details from the *Slide Library*  
collection (clockwise from  
top left): "Watermark Series"  
(detail), 2007; "Vibration  
Series," 2007; "Dust Series,"  
2007; "Watermark Series"  
(detail), 2007; "Crack Series"  
(detail) 2007.

PHOTO: PAUL LITHELAND

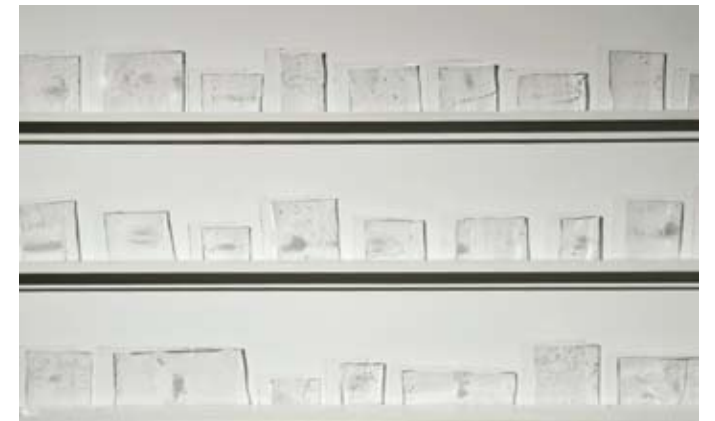
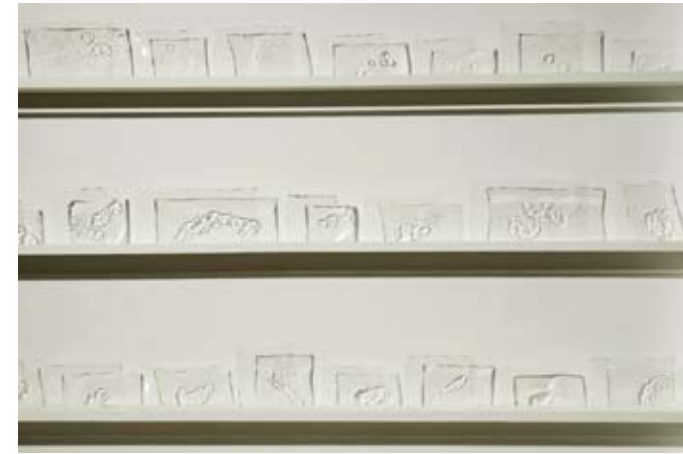
Prince began working with glass in the early 1990s and draws on its inherent flexibility to document such fragile qualities as temperature, sound, motion, and gesture. Though she describes her work as using a "pseudo-scientific methodology," this should not be mistaken for a lightweight or fanciful approach. Prince's elegant conceptual project likens the transparent skin of glass to a metaphorical body, and equates the thermal and resonant tensions she places upon the material with invisible stressors such as heat, cold, and pressure—and their emotional and psychological counterparts—which leave their marks on the human body. Mimicking scientific methods, Prince first poses a question and then meticulously tests the results, recording data at each stage of the process.

One of her ongoing projects, *Slide Library*, began in 2002 and consists of a series of glass panels, or slides, that resemble microscopic plates or Petri dishes. Each records the results of Prince's application of various tensions—sound vibrations, splashing water, dust residue—to blown glass bubbles. When the glass cools, she cuts and flattens it, preserving the crack, watermark, or other trace of the material's reaction to the stressor. These vary in size and shape, leading Prince to organize them in groups such as "Watermark Series" and "Crack Series." Each organic pattern, whether a concentric circle or lightning-like crack, is as unique to the others in the group as one person's scar, bruise, or broken heart is to another, poetically extending the metaphor of glass as a transparent skin.

The slides are displayed on shelves, like a laboratory, inviting viewers to take the time to explore their distinct but subtle variations and similarities. Typical of her articulate explanation of the work, Prince writes on her website, "My exploration is informed by the conceptual and artistic possibilities made available by our perceptions of scientific glass as an icon of objectivity and contrasting that with our reading of traditional handcrafted glass as decorative, personal and subjective."

Though lyrical and insightful, Prince's works could easily be taken for beautiful formal sculptures to the unschooled observer. *Chill Factor* (2005–2007) appears to be a sumptuous yet minimal sculpture installation, save for the grease pencil markings on each of the clear glass globes. Yet closer investigation reveals a unique reflection under each sphere as light moves through the striated, wave-like, and other subtle patterns in the thick glass. Similar to the process in *Slide Library*, these marks are the result of differing temperatures applied to heated glass. But this is no science experiment; Prince is not looking to prove anything about temperature—it's the looking that matters.

One of Jocelyne Prince's ongoing projects, *Slide Library*, records the results of the application of various stresses – sound vibrations, splashing water, dust residue – to the delicate surfaces of blown glass bubbles.





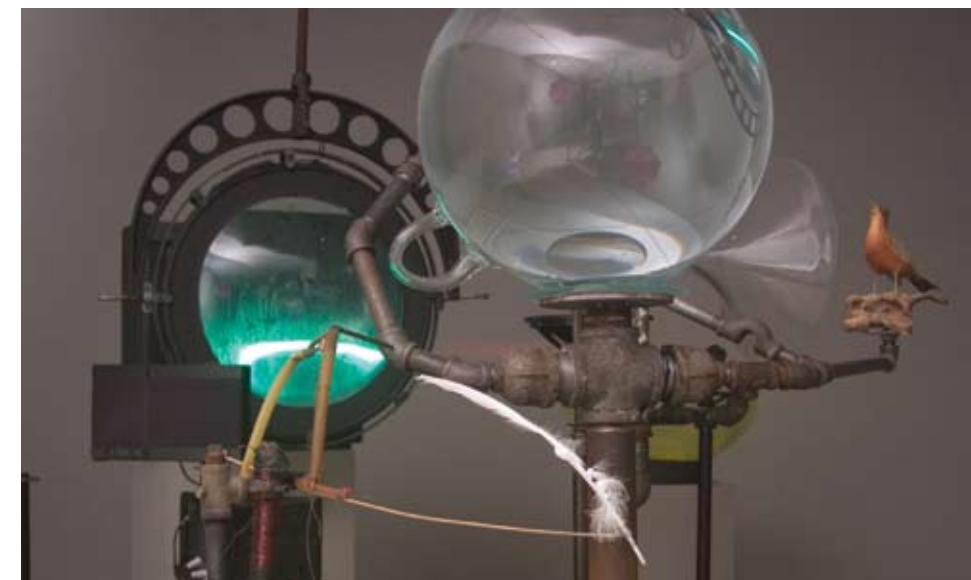
## MARK ZIRPEL: Natural Rhythm

Mark Zirpel's glass lunar drawings and transparent tide sculptures similarly draw on the facts of biology and geology in the service of a more open-ended and metaphorical study of the passage of time, filtered through the cyclical processes of nature. An established artist and the holder of the Chihuly Chair in Glass at the University of Washington, Zirpel has made a practice of melding objective and subjective realities. His work favors phenomenological over empirical evidence—the experience of the breath moving in and out, the sense of watching the moon cast its light upon the sea more than why or how these processes occur—and follows a similarly organic progression. Prior to moving to Seattle in 1994, Zirpel spent 20 years living in Alaska, where the vast landscape and challenging weather impacted his outlook and practice.

His sculptures, drawings, and mixed-media works depend on the scientific practices of observation and recording, but, like a jazz artist, he allows himself free rein to experiment, letting one body of work or experience with nature riff off another in a process that mirrors the pragmatism and mystery both of nature and of art. In one particularly stunning work, Zirpel cast a section of the beach. After hauling the six-piece plaster mold back to the studio and waiting months for it to fully cure, he slumped plate glass into the molds, enameled the backs white, and sandblasted the surface to eliminate glare. The final touch was a custom moving light that traveled in an arc over the glassy shore, mimicking the rising and falling sun, or the shifting of the moon across the night sky. Though technically a beachscape, *Camano Island, Low Tide, May 27, 2002, 11:37 pm* (2003) hovers like a lonely section of a planet or a lost satellite, while the powerful lamp highlights the soft hills and valleys of its dislocated shore. Both calming and haunting, it is a monument to a particular moment in time and yet also, in the context of current events, a memorial to the fragile beauty of an environment in peril.

Other works include a wing and a branch cast in glass, and a series of “drawings” made with powdered glass that emulate the surface of the moon. These invented fossils and imaginary moonscapes are reminiscent of a child's sincere yearning to know another time and place—to talk to a dinosaur, to touch the moon—as if through careful observation and work, the awe and mystery of time and distance could be held and understood or, more in keeping with Zirpel's practice, witnessed and respected. More recently, the artist has been making mixed-media sculptures that at times resemble models for prostheses, or a type of robot. These initiate from the body, echoing its rhythms and noises, forms and cycles, casting Zirpel as part mad scientist (à la Frankenstein), part poetic medic. But throughout his distinct bodies of work remains a fascination with the powerful rhythms and patterns of nature, a desire to observe, mimic, emulate, and through these processes, come a little closer to understanding its mystery.

Mark Zirpel lets one body of work or experience with nature riff off another in a process that mirrors the pragmatism and mystery both of nature and of art.



THIS PAGE  
*Bird Translator*, 2007. Mixed media (glass, water, laser, oil, steel, speakers, video, wire, feather, and wood). H 120, W 120, D 90 in.  
PHOTO: MARK ZIRPEL

OPPOSITE PAGE  
(clockwise from top)  
*Camano Island*, 2003. Slumped, lacquered, sandblasted glass, light, steel, motor. H 60, W 72, D 24 in.  
COURTESY: TRAVER GALLERY

*Lung*, 2002. Blown glass, mixed media. H 76 ½, W 35, D 21 in.  
COURTESY: TRAVER GALLERY

*Leaf II*, 2002. Sandblasted, enameled glass. H 20, W 54 in.  
COURTESY: TRAVER GALLERY.





Carrie Paterson chose to work with scent because of its power to relate to the things that make life worth living—food, memory, and our conception of home.



### CARRIE PATERSON: The Glass Bridge

The work of Los Angeles-based Carrie Paterson draws more concretely from science, while providing a contemplative space in which to consider the human condition and our place in the universe. Each of Paterson's mixed-media projects investigates the bridge between art and science; their titles tend to mimic a humorous collision between science fiction and obscure cultural theory. For *Strange Attractor*, 2008, Paterson engaged in extensive research into glassblowing, organic chemistry, and scientific diagrams, including various maps and conceptions of the universe. In addition to glassworks, *Strange Attractor* includes drawings, a unique line of perfumes, and an illustrated book detailing her research. Reflective of an artist's rather than a scientist's study, the book roams freely from Copernicus to Lorenz, from heliocentric and geocentric models of the universe to string theory, and culminates in a series of questions about the relationship of these models and diagrams to societal power and human cognition. Through all this, Paterson arrived at the decision to make a nine-layer universal model and perfumes to house in its compartments. She chose to work with scent because of its power to relate to the things that make life worth living—food, memory, and our conception of home.

In order to construct the complicated structure she envisioned, Paterson enlisted the help of Bob Maiden, a skilled technician who received a master of science in chemistry before starting Kildee Scientific Glass Company. Maiden's company fills industrial orders and fabricates custom glass-blowing tools and jigs at a machine shop on the premises. In Paterson's book, Maiden comes across as a wry co-conspirator, saying of the project, "I took it on for the challenge—and for bragging rights." The fascinating and beautifully crafted structure that results from their effort consists of nine glass orbs, each nesting inside another like a miniature interdependent universe. From each globe arises a slender tube topped by a colorful planet-like stopper.

Collaboration was a big part of the process. Paterson worked with the colorist and marble maker Adam Rosenfeld to achieve colors such as the rich Mars-like red, watery gold-flecked turquoise, and stunning bright pink of the stoppers. To make the perfumes, she consulted with artist Karen Reitzel. Dusk, Polaris, Kemmer, Airy, and seven other perfumes are contained in the main structure, as well as in distinct glass bottles.

Similar to the processes of Prince and Zirpel, Paterson's research and art making are a jumping-off point for possibilities and objects that are ultimately far less objective and fact-driven than the ideas that inspire them, inviting more questions than answers. In an e-mail exchange, Maiden, the technical glassmaker and businessman, unwittingly hits on one of art's most distinctive features, its lack of inherent purpose. "One might dream of fabricating a nine-layered sphere," Maiden says, revealing the vitality and power of art. "But usually we are too busy to ever get around to doing it. It was fantastic to get a chance to execute this piece."

Artists and scientists are both invested in the value of the imagination, the ability to wonder, and the importance of curiosity, but for an artist, the ongoing process is often the answer. In a short video documentary, *Slide Library*, Prince compares her simultaneously objective and un-objective practice to searching the clouds for identifiable shapes. Despite knowing how clouds are formed, we still seek a bunny, a butterfly, or a bird in the sky's amorphous curves. Applied to art, it is the viewer who completes these experiments of the imagination; it's up to each of us to draw sense or meaning or emotion from the patterns, forms, scents, and ideas—we discover the rabbit in the sky. ■

ANNIE BUCKLEY is a writer, editor, and artist. She is the editor in chief of Artweek, and her writing appears regularly on Artforum.com, in GLASS, and other magazines.

THIS PAGE  
Two detail shots of borosilicate glass stoppers, one sandblasted and one red, from *Strange Attractor*, 2008.

OPPOSITE PAGE  
(clockwise from top) Two views of *Strange Attractor* (installation view), 2008. Borosilicate glass with stainless steel and acrylic base. H 17 1/2, W 25, D 25 1/2 in.; *Single Perfume Distillation Bottles* (two of nine), 2008. Borosilicate glass. H 5, W 4 1/2, D 4 1/2 in. (each bottle).

Reproduced with permission. Article originally appeared in the Spring 2009 edition (#114) of *GLASS: The UrbanGlass Art Quarterly*. Copyright © 2009. All rights reserved. More info: [www.glassquarterly.com](http://www.glassquarterly.com)