

An Installation by Martha Glowacki
Starry Transit

August 27-November 6, 2005

Washburn Observatory

Madison Museum of Contemporary Art

in collaboration with

University of Wisconsin-Madison

Department of Astronomy

Birds

have long been a subject in the visual arts, from goldfinches representing the passion of Christ to depictions of the Hindu God Garuda as a majestic bird. Many cultures portray birds as winged souls providing a fleeting connection to the celestial world.

After learning that night-migratory birds often navigate according to the stars, Wisconsin artist Martha Glowacki was inspired to create an installation about this phenomenon at the Washburn Observatory. Uniquely sited within the observatory dome, *Starry Transit* investigates attempts to observe and comprehend the natural world. One of the first buildings designated specifically for the sciences by the University of Wisconsin-Madison, Washburn has been a hallmark of the University's campus since officially opening in 1881. Located next to a bird-shaped effigy mound, it has enabled students and casual observers to view the galaxy aided by a refracting telescope. Joining the study of natural life with a renowned site of learning, Glowacki's installation raises poignant questions about the nature of science, art, life, and human understanding.

The installation, blending scientific instruments and images together with bird specimens, contains several components: a cabinet of curiosities, a planisphere, a phenakistoscope, framed images, original poetry, historic and scientific texts, and a sound recording. As a whole, the pieces are a mini-museum through which one can learn about historical ideas of the natural world and recent scientific discoveries. On another level, this group of works, carefully fashioned by the artist in her studio, delves deeply into the cycles of life, death, and survival that link animals of all kinds on the most primal of levels.

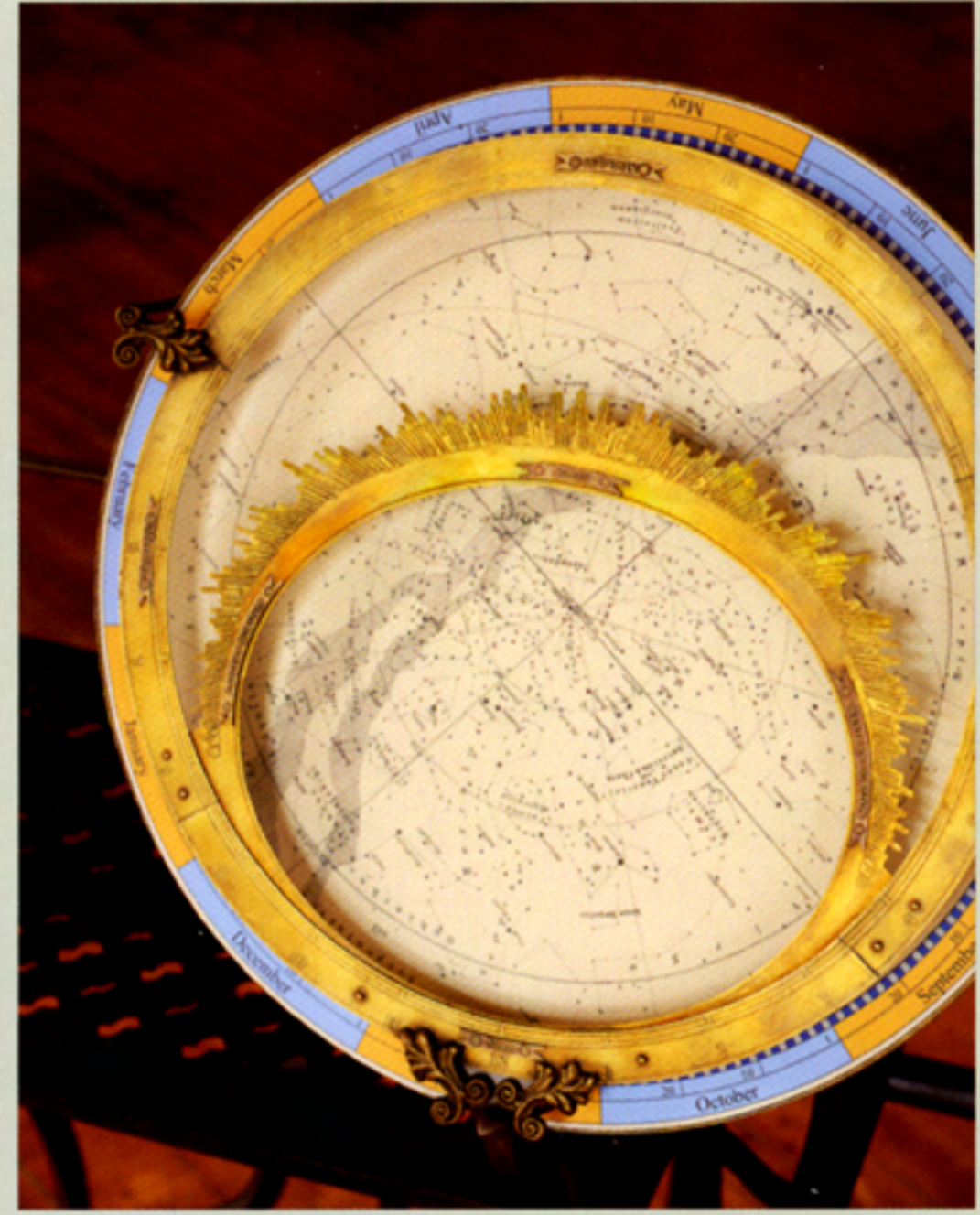
The centerpiece of this installation is called *Starry Transit*. Four preserved birds are arranged in an antique display cabinet placed on a



table with three drawers. Arranged on models of constellations, the birds seem at once poised for flight and perched for observation. The restored metal-and-glass case in which they sit is a pristine and fragile reminder of the history of material culture; its label still reads "Daniel Barclay Maker/14 State St Chicago." Inside the central drawer, the viewer can study historic maps of the Western Hemisphere with the north-south fly-way clearly marked by pins and string. The side drawers hold celestial maps and historic renderings of constellations. The arrangement of the preserved birds coupled with the etched maps and the constellation models gives these imaginary migratory journeys a mythic aura. Together, the components of the installation suggest the metaphorical importance—on a human level—of such an odyssey, embodying growth, survival, and the power of rites of passage.

The premise of this installation—the observation that night-migrating birds find their way during their seasonal journeys by following the patterns of the stars—was a relatively recent discovery by the naturalist Stephen T. Emlen.¹ In the mid-1970s, with the help of his father, Emlen discovered that diminutive indigo buntings complete this challenging and exhausting journey following the light and configuration of the stars.² Although several factors—from weather to magnetic fields to natural barriers—also influence the odyssey, the birds undertake this dangerous flight on an exacting and automatic schedule.

Our desire to theorize about natural phenomena indicates an impetus for a categorized and organized picture of the world. From the Medieval period to the Renaissance, the Enlightenment and, even now, in the Modern Age, the push to outline a holistic picture of the world has created a need for levels of proof and authenticity.³ These vagaries or strata of knowledge and expertise drive Glowacki, who is fascinated by historic conceptions of the world and our contemporary relationship to them. The gap, for example, between the natural world and our malleable but humble understanding of it, is source material for the artist and her multi-layered installations.



Left: *Starry Transit* (full view). Above: *Planisphere*, full view, back (detail), and front (detail). Bottom right: *Phenakistoscope* (detail). All photographs by Eric Ferguson.

Glowacki's installation, as a whole, depicts real science, real discoveries, conjecture, and also examples of mechanical prototypes. Working in collaboration with astronomer James Lattis, Glowacki was able to make a working planisphere for the installation. Used to determine when and where certain constellations will appear in the sky, planispheres have been utilized by scientists commonly since the eighteenth century.⁴ Glowacki's mechanism contains two discrete discs showing maps of the Northern and the Southern Celestial Hemispheres with marked sections on the periphery representing the days and months of the year. Brass rings, attached to each other, plot the hours of the day and delineate the star patterns visible at a designated site and time. Moreover, the design of the sculpture incorporating an antique sewing table exemplifies Glowacki's ability to make the functional artful.

Continuing with this theme of the scientific and the mechanical, Glowacki also designed and built a phenakistoscope, a popular parlor toy in the nineteenth century recognized as the hand-powered precursor to the modern film projector. After studying photographic images taken by Etienne Jules Marey⁵ and Eadweard Muybridge, the artist realized that these early photographer/scientists were as curious about bird flight as she was. Glowacki appropriated images of a vulture flying from Muybridge's book *Animals in Motion* for use in the spinning phenakistoscope disc.⁶ Watching the bird embedded in Glowacki's instrument, a fictional character in a larger drama about the nature of life, the viewer is transported back through time and versed in some of the ways physiology determines movement. By turning the gear shaft and noticing the detailing of the light illuminating the sculpture, one is given the sensation that might have been felt by World's Fair visitors in the early twentieth century. As Glowacki nods to past discoveries, with this work, she obscures the line between scientist and amateur observer.

In addition to the planisphere and the phenakistoscope, Glowacki has washed the circular space of the observatory with communicating calls of migratory birds. Listening to the high and low pitches of these warblers and other birds, the viewer is also given the opportunity to examine a group of star maps from the *Academische Sternkarten*, a seminal text in western cartography from 1859. Stretching across the five panels that comprise *Natural Philosophies* is a curvilinear listing of the ascension and the declination of the principle fixed stars. The tables delineating the rising and descending stars are known to be a tool with which astronomers determine location in the celestial skies. Here, the tables serve as reminders of the images humans have imagined in the constellations, from Orion's belt to the horn of Aries. A chart of the rotation of the moons of Venus mingles with an image of the skeleton of a starling in flight. These serious and carefully detailed images are joined together with a poem by Mary Mercier and excerpts from the journal of an astronomer observing birds flying through the night skies. "At night/they read the stars like tea leaves, finding their way across the velvet fields. Some nights/they draw their Vs across the moon," Mercier writes about migrating snow geese and their intricately woven social web.

Finally, the installation includes a single oval piece, called *Song of the Stars*, conceived and constructed by the artist in her studio in the final months of fabrication and assembly for the exhibition. This wall-piece frames the text of a Passamaquoddy poem and the skeletal remains of a Canadian goose covered in graphite. As these works in the exhibition link Western culture, as expressed by the European maps from the nineteenth century, with Native American culture, they function, at the same time, as a harbinger of things to come to all of us. Death is only part of this—it also includes increasing awareness of the world around and beyond us.

For many years, Martha Glowacki has explored our understanding of the natural world through the history of science and scientific illustration. For this installation, the artist has combined her exploration of avian behavior, cartography, astronomy, physics, poetry, and art to create a meditation on some of the most basic foundations of life. Evoking knowledge, flight, change, communication, spirituality, experimentation, and persistence, Glowacki connects us to the natural world in ways that science only imagines.

Jane Simon
Curator of Exhibitions
Madison Museum of Contemporary Art

¹ Stephen T. Emlen, "The Stellar-Orientation System of a Migratory Bird." *Scientific American*, V233, 1975, pp. 102-111.

² Emlen's research experiments concerned only indigo buntings, but it is clear from his writing that this theory could be applied to other night-flying migratory birds, such as warblers and thrushes.

³ For a more detailed and rigorous explanation of this idea, see Barbara Maria Stafford, *Artful Science: Enlightenment Entertainment and the Eclipse of Visual Education*, Cambridge, MA, and London: MIT Press, 1994.

⁴ The mathematical theories behind the planisphere were known during the ancient Greek civilization, but no known instruments from that time survive. During the Middle Ages, scientists used *astrolabes*, instruments based on similar mathematical theories.

⁵ See Marta Braun's publication about the French Scientist, *Picturing Time: The Work of Etienne Jules Marey (1830-1904)*, Chicago and London: University of Chicago Press, 1992.

⁶ See Eadweard Muybridge, *Animals In Motion*, London: Chapman & Hall, 1925.

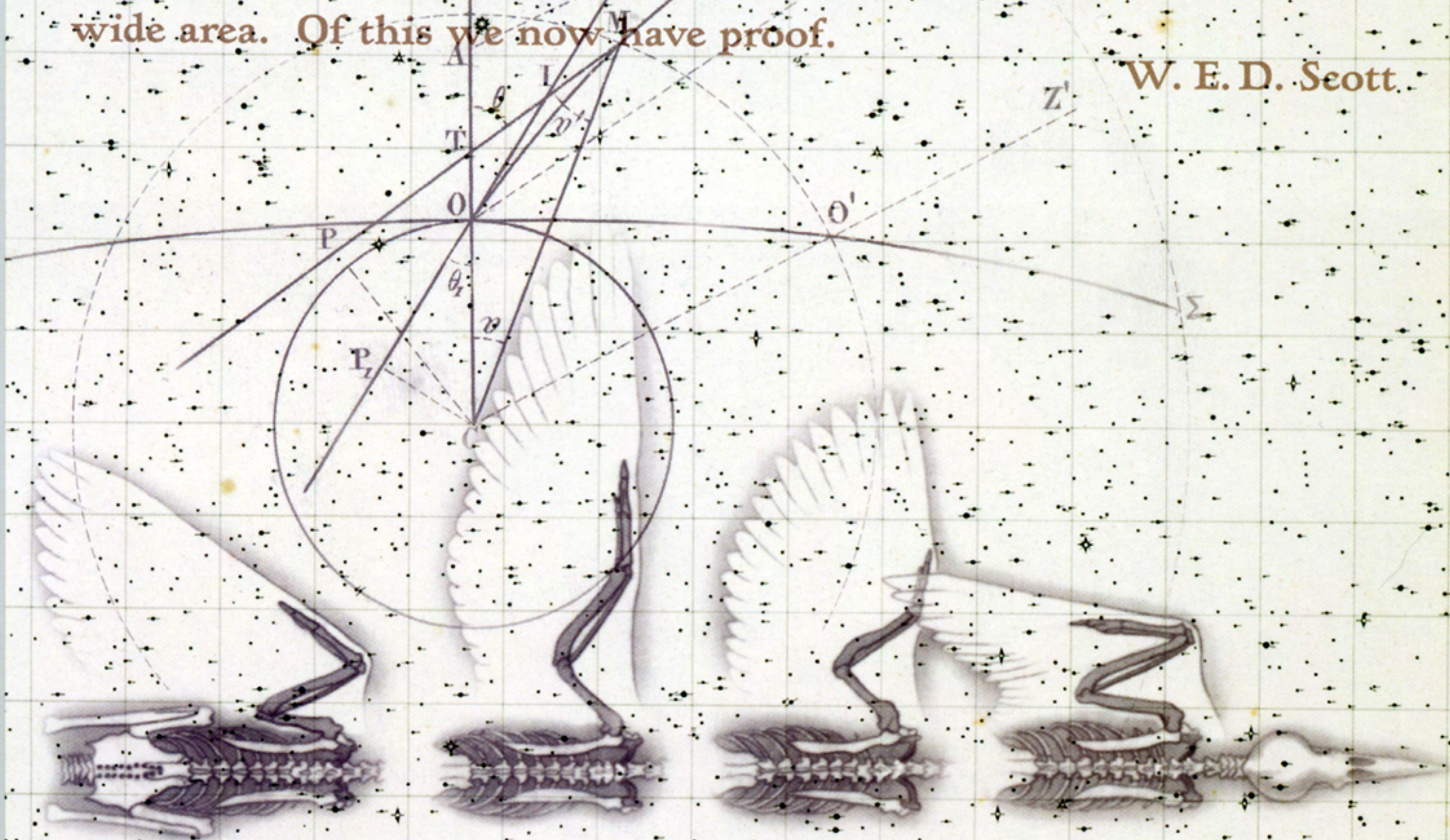
Biography

Born and raised in Milwaukee, Martha Glowacki received her BS in Art Education and her MFA from the University of Wisconsin-Madison. She has served as the curator of the Design Gallery at the University of Wisconsin-Madison and is currently co-director at the James Watrous Gallery of the Wisconsin Academy. Her work has been shown at the School of the Art Institute of Chicago; the Milwaukee Art Museum; Contemporary Arts Center, Cincinnati; the Chazen Museum of Art, Madison, and the John Michael Kohler Arts Center, Sheboygan, Wisconsin, among others. She has been the recipient of grants from the Wisconsin Arts Board and the National Endowment for the Arts. She lives near Sauk City, Wisconsin.



These observations establish on a scientific basis several points in relation to the migration of birds that have heretofore rested on conjecture and probability. The nearest birds seen through the telescope must have ranged in elevation from one mile to two miles. It has been held that birds when migrating may fly at a sufficient height to be able to distinguish such prominent features of the landscape as coastlines, watercourses, and mountain chains over a wide area. Of this we now have proof.

W. E. D. Scott.



Works in the Exhibition

Starry Transit, 2004

Wood and glass case with metal-covered trim, mahogany table, wood platform, nineteenth century maps (paper), bird carcasses covered in graphite, wood constellation models, etched copper plates, pins, string, casein, and encaustic paint
 72½ x 49¾ x 27¼ inches

Planisphere, 2005

Etched bronze and brass plates, cast bronze, found cast-iron parts, steel, wood, masonite discs, ink-jet prints, and marbled paper
 49½ x 40 x 15 inches

Phenakistoscope, 2005

Masonite disc, marbled paper, ink-jet prints, found and fabricated brass and cast iron parts, antique organ stool, wooden handle, antique mirror, and taxidermy-mounted crow covered in graphite
 57½ x 19 x 16 inches

Song of the Stars, 2005

Wild goose skeleton, restored wooden frame, iron, graphite, copper, casein and enamel paint, silk
 19 x 33 x 2 inches

Natural Philosophies, 2005

Wood, marbled paper, ink-jet prints, Plexiglas, copper, brass, casein and enamel paint, and bird bones
 Five panels: 39 x 23½ x 3¾ inches (each)
 With graphic design contribution by John Huston.

Audio design, including four-channel audio soundtrack, by John Feith with Bill Evans, Greg Weddig, Rob Danielson, and Richard Peet.

All works courtesy of the artist. • Unless otherwise noted, height precedes width precedes depth.

Accessibility and the Starry Transit Website

An extensive website related to *Starry Transit: An Installation by Martha Glowacki* has been developed by MMoCA's Education Department. Visit www.mmoca.org/starrytransit to learn more about the artist's working methods; bird migration; constellations and star stories; the historic Washburn Observatory; and the development of the exhibition, including the artist's collaborations with a poet, a

sound engineer, an astronomer, a graphic designer, and others who helped her realize her vision for the project.

The *Starry Transit* website also provides important access to the exhibition for individuals unable to attend the show or gain access because of this landmark facility's narrow doorways and steep, winding stairs with multiple landings.

Acknowledgments

The artist would like to thank the following people for their generosity and expertise in putting together this exhibition: James Lattis and Peyton Smith, University of Wisconsin-Madison; Ken Frazier, Robin Rider, Elsa Althen and Sandra Paske, University of Wisconsin-Madison Libraries; Michael Edmund, Wisconsin Historical Society; poet Mary Mercier; John Feith, John Huston, Eric Ferguson, Tom Pankratz, Dietmar Olesch, Bruce Knackert, and Richard Berndt. Special gratitude also goes to the Madison Museum of Contemporary

Art Board of Trustees and staff, including Stephen Fleischman, director; Jane Simon, curator of exhibitions; Sheri Castelnuovo, curator of education; Janet Laube, education associate; Mark Versteegen, director of technical services; Doug Fath, preparator; Nicole Allen, director of development, Jennifer Holmes, assistant to the director; Marilyn Sohi, registrar; and Katie Kazan, director of public information. The artist dedicates her work in the exhibition to her mother, Jane Appleyard.

Madison Museum of Contemporary Art

The Madison Museum of Contemporary Art is an independent, non-profit organization presenting exhibitions of modern and contemporary art by local, national, and international artists. A permanent collection of some 5,000 works is maintained and enlarged

through gifts and purchases; support from individuals, businesses, and foundations allow the museum to offer free exhibitions and education programs. Visit the museum online at mmoca.org and in the Overture Center for the Arts beginning in April 2006.

Sponsors

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arm of The Capital Times; Jan Marshall Fox and Don Bednarek; a grant from the Wisconsin Arts Board, with funds from the State of Wisconsin; and the Art League of the Madison Museum of Contemporary Art.