

*A Stupendous Mirror of Departed Empires*¹

What a serendipitous occasion to find myself standing in Rachel Berwick's studio on September 1, 2009. For it was on that very day ninety-five years ago that Martha, the last passenger pigeon, drew her final breath. This was a sad end to an awe inspiring and horrific story of scientific intrigue, human greed and environmental devastation. It is no wonder then that Berwick's studio is strewn with amber casts of this most famous bird, frozen in time and captured in memory.

The story of the passenger pigeon is essentially one of wonder but also of warning. Firsthand accounts of passenger pigeon sightings are filled with amazement. For example, in the early 1800s Alexander Wilson stated, "I was sud-

denly struck with astonishment at a loud rushing roar, succeeded by instant darkness...I took [it] for a tornado, about to overwhelm the house and everything around in destruction."³ Later, in 1813, John James Audubon similarly recalled: "The noise which they made, though yet distant, reminded me of a hard gale at sea, passing through the rigging of a close-reefed vessel. As the birds arrived and passed over me, I felt a current of air that surprised me... The Pigeons, arriving by thousands, alighted everywhere, one above another, until solid masses were formed on the branches all round... It was a scene of uproar and confusion."⁴ Two of America's most respected ornithologists of the nineteenth century seemed downright dumbstruck at the sight of these birds, whose numbers were estimated in the millions per flock. These are not your usual accounts of pleasant, tweeting birds sitting in a nearby tree; they are visions not unlike descriptions of natural disasters. Given this overabundance it is even more astonishing that these birds no longer exist.

The extinction of the passenger pigeon was one of the greatest and quickest in the history of North America. Swarms of birds would move from one area

1 This quote by P.T. Barnum was said in relation to his 1889 circus. In the quote, Barnum was specifically referring to more ethnographic exhibits at the circus, but here it seems a fitting tribute to Rachel Berwick's reflection on the extinction of the passenger pigeon. See Bluford Adams, *E. Pluribus Barnum: The Great Showman and the Making of US Popular Culture* (Minneapolis: University of Minnesota Press, 1997), 188 for more on the Barnum quote.

2 Thirteenth-century theologian Albertus Magnus wrote this in his *Commentary on the Metamorphosis of Aristotle*, quoted from Celeste Olalquiaga, *The Artificial Kingdom: On the Kitsch Experience* (Minneapolis: University of Minnesota Press, 2002), 210.

3 Alexander Wilson, *American Ornithology*, with a continuation by Charles Lucian Bonaparte, illustr. Notes by William Jardine, vol. 2 (London: Whittaker, Treacher, and Arnot, 1832), 201-4.

4 John James Audubon, *Birds of America*, Volume V. For the online version of the 1840 "First Octavo Edition" visit http://www.audubon.org/bird/BoA/BOA_index.html. For a full account of the passenger pigeon go to "Extinct Birds."



"...wonder is something like fear in its effect on the heart. This effect of wonder, then, this constriction and systole of the heart, springs from an unfulfilled but felt desire to know the cause of that which appears portentous and unusual."² — ALBERTUS MAGNUS

to the next, seeking out old growth oak and beech forests. The sight of the birds, as noted above, was magnificent, but it was also plague-like and destructive. Due to their sheer numbers, when the birds descended they would darken the sky, tree branches would snap under their weight, and one hardly need mention or imagine the hailstorm of bird droppings they would leave in their wake: a real life Alfred Hitchcock moment. So what happened to the passenger pigeon? Plainly stated, we, the human race happened to them, as their numbers dwindled both as a result of deforestation and hunting. At each spectacular arrival of passenger pigeon flocks, hunters would gather and begin to take the birds down, shooting them, netting them or just using sticks to knock them out of trees. Billions of these birds existed in the 1870s, only dozens by the 1890s, and by 1900 they were extinct in the wild (Martha, who lived at the Cincinnati Zoo, would hang on for another fourteen years).⁵ This extinction is perhaps the first in history to teach us about the fragility of the environment, the first where we could see disappearance as the result of our own hands, whether it be for food, sport, fashion or pest control. For many years, people speculated about what happened to the passenger pigeon, not willing to accept culpability, and instead theorized that the birds were hiding elsewhere. However, the inevitable was made all too clear when in 1947 the Wisconsin Society for Ornithology erected a monument to the passenger pigeon in Wyalusing State Park. The dedication of this monument was written by Aldo Leopold, one of the first conservationists, and included the following elegiac statement: “Trees still live who, in their youth, were shaken by a living wind. But a decade hence only the oldest oaks will remember, and at long last only the hills will know.”⁶ Here Leopold hints at the wonder of these birds but more palpably he mourns their loss.

Aside from teaching us about our own destructive capabilities or awakening our sense of wonder, one could postulate that—due to their vast numbers and movement from one area to the next—the passenger pigeon was one of the first visible examples of species migration. At the time, the science of migration was in its infancy and would not be fully explored for another few decades. There has always been a sense of mystery around migration; early on it was believed that birds perhaps went underground or hibernated, for it seemed improbable that they would fly across the globe in search of warmer climes. Even today scientists have not yet determined how and to where some species of birds migrate. The first breakthrough in migratory science came in 1949 when German ornithologist Gustav Kramer built a series of orientation cages—cylindrical structures with glass bottoms for observation. The purpose of these cages was to test how birds move and why. Was it the orientation of the stars, the sun, magnetic forces, etc.? In some studies birds were put into cages surrounded by mirrors to shift the location of the sun, in others magnetic fields were placed around the cages, and later, in the 1960s, scientist Stephen Emlen would take these cages into planetariums to shift the location of the stars to determine how

⁵ Jennifer Price, *Flight Maps: Adventures with Nature in Modern America* (New York: Basic Books, 1999), 3.

⁶ Aldo Leopold, *A Sand County Almanac* (Oxford: Oxford University Press, 1949), 116.



certain birds oriented themselves. The “why” that compels the act of migration is particularly interesting to Berwick, and it is from this “why” that she chose the title for her work: *Zugunruhe*. This term, coined by Kramer, describes the restlessness in birds; the compulsion to move or to migrate.

For Berwick there is a kind of poetry in *zugunruhe*, in the fact that it is a mysterious force that is felt but not seen. This becomes all the more palpable when viewing her work. Upon entering the gallery, viewers are confronted with a large ten-foot diameter, nine-foot high heptagonal structure made of smoky two-way glass. It appears almost like a monumental version of an orientation cage, a new device for another form of observation, as much about humans as birds. Inside is complete stillness, as a number of passenger pigeons cast in amber sit amongst the branches of an old tree. Here *zugunruhe* is arrested. There is no movement, only the memory of movement, and compulsion is therefore replaced with thwarted desire. Berwick’s *Zugunruhe* is a monument to the lost migration of these now extinct birds, as much as it is a monument to science, optics and spectacle.

This convergence of science, optics and spectacle evident in Berwick’s work comes from the sense of nature as entertainment or constructed experience, an evolution which can be traced from the pre-Renaissance to the Victorian age (and even continuing today in our zoos and museums). For Berwick, another inspiration for *Zugunruhe* comes from Athanasius Kircher, the seventeenth-century German Jesuit scholar known as “the master of a hundred arts.” Indeed, Kircher was an intense polymath, studying geology, hieroglyphics and most intensely, magnetism. Kircher believed that magnetism was the defining force of all nature. To support this he created devices in which he would embed magnets in small figures and then suspend them in water-filled globes to test





the forces of the external world on these magnets. These are like proto-orientation cages, for migration as a result of magnetism was a subject that Kircher also took interest in. Kircher's environments in globes or mirror boxes (small landscapes constructed of wax and placed in mirrored display cases) were scientific but they were also concerned with the theatricality of display and the construction of nature, much like the eighteenth-century curiosity cabinets that held natural history collections (of both actual and created specimens) that were popular in Renaissance homes and early museums.

Kircher merged the investigations of science and display, a practice that would continue in the nineteenth century, evolving from the curiosity cabinet and expanded in scale and scope with the Crystal Palace. The Crystal Palace, built in 1851 for the Great Exhibition or first World's Fair in London, was said to be "a giant structure of iron and glass dedicated to a new way of looking..."⁷ Inside the Crystal Palace one could find international exhibitions about industry and culture alongside fine fashions, furnishing, and natural and artificial wonders as far as the eye could see. Included in the Great Exhibition were magnificent hummingbird trees created by British ornithologist John Gould. These small glass-enclosed display cases held branches inside of them that were populated by hundreds of taxidermy hummingbirds of different species. In these cases, Gould constructed a specific kind of nature experience through theatrical display, an idea that also emerges in Berwick's constructed forest of

above right "A Magnetic Oracle" from Athanasius Kircher's *Magnes*, pl. 327 (Cologne, 1643). Courtesy Beinecke Rare Book and Manuscript Library, Yale University.

An example of Kircher's instruments displaying the power of magnetism that inspired Berwick's installation. Each of the glass globes contains a magnetized dial. The dials within the globes move in unison much like the phenomenon of migration. Furthermore, magnetism is used by some species of birds to navigate during migration.

opposite "Hummingbird Tree" from The Natural History Museum, London. A display from the 1800s containing hundreds of taxidermied hummingbirds on a sculpted tree. © The Natural History Museum, London.

amber passenger pigeons. Both however hint at the impossibility or fantasy involved in how we view nature in these "created" situations: in Gould's case, the number and species variety of hummingbirds would never be seen together and in Berwick's installation, the impossible vision is even more palpable due to the extinction of the birds on view. What replaces nature in the hummingbird trees and in *Zugunruhe* is instead stillness and the awareness of perception.

In addition to showcasing these "natural" wonders, the Great Exhibition demonstrated all that was amazing about and could be constructed as a result of modernity, starting with the building itself. In 1845 taxes on the importation of glass from France were lifted, enabling the Crystal Palace to exist and exposing the world to the kind of voyeuristic experience of looking that glass can offer. It is no accident that Gould's hummingbird trees have become so engaged with ideas of perception, for glass offered the opportunity to reevaluate just how things get looked at. Berwick beautifully exploits these qualities of glass in *Zugunruhe*. Her use of smoky two-way mirrors, presents viewers with a choice of observation points as they walk around the sculpture, leading to the recognition of their own reflection as well as those of fellow onlookers. The tree and birds inside Berwick's "mirror box" are lit from within, so the reflection of the viewer sits on the surface of the glass, ghostly hinting at the culpability of mankind in these birds' disappearance but linking as well to the looking and awe evident in early passenger pigeon sightings as much as in the Crystal Palace or even the contemporary museum. Nature here has become a phenomenological experience; it is a new kind of theater. By using two-way glass Berwick reaffirms the fact that her reality is a construction, for as viewers look through the piece the single tree and amber birds are mirrored kaleidoscopically to create a seemingly endless forest befitting of one of Kircher's mirror boxes. By merging the orientation cage with the mirror box and the hummingbird tree, Berwick creates a willing suspension of disbelief. We, as viewers, are transported by our own phenomenological experience, and in this realm, abundance has been returned to the passenger pigeon.

"And it can be said in particular of Wonder that it is useful in making us learn and retain in our memory things we have previously been ignorant of, for we wonder only at what appears rare and extraordinary to us."⁸ This story of passenger pigeons, migration, mirror boxes, and crystal palaces is certainly rare



and extraordinary and through Berwick's conflation of these histories she brings the wonder of it all back for our eyes to behold. Rachel Berwick's *Zugunruhe* is, as PT Barnum wrote in 1886, "A stupendous mirror of departed empires."

7 Olalquiaga, 31.

8 Rene Descartes, *The Passions of the Soul*, S. Voss, trans. (Indianapolis: Hackett Publishing Company, 1989) Article 75 "Wherein Wonder in particular is serviceable," 59. *The Passion of the Soul* was originally published in 1649.

