



B. J. O. NORDFELDT'S
TWO PIGEONS

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Hillstrom Museum of Art

similar instrument essential for “homing” in pigeons was described in 1953 by the German avian biologist Gustav Kramer “as composed of two different steps . . . both steps find their parallel in human orientation, the first being represented by the procedure of studying a map, the latter by consulting a compass.” Since then, much has been learned about which spatial cues are exploited and how they are represented in the architectural details of the biological maps and compasses in migratory avians. For example, many species of newborn birds innately rely on “rock-solid” sources of directional information, such as the earth’s geomagnetic field, before learning that visual landmarks can also reliably lead them back to their neighborhood.

An exceptional capacity for visual memory would be equally valuable too, as it is for Clark’s nutcrackers, super mnemonist birds that rely on visual cues in the environment to recover food stored nine months earlier in thousands of sites. One of the first reports describing the long lasting durability of memory in pigeons came from Skinner, who observed that they could make an appropriate response to a complex visual stimulus after a delay of more than five years. In 1984, Harvard psychologists William Vaughan and Sharon Greene revealed that the stability of that memory is paralleled by an extraordinary breadth: the accuracy of responses to several hundred pictures of random shapes and scenery arbitrarily assigned as either correct or incorrect was “strikingly resistant to decay” when tested more than two years later. The vast majority of humans cannot even come close to such a performance.

If the process of mental cartography in pigeons is similar to what has been rigorously studied in rodents, assembly of novel scenery into a map occurs unnoticeably by an ongoing resetting of the values in the strength of communication between individual neurons, the core mechanism underlying the plasticity of spatial cognition. When a person enters an unfamiliar room or town, the brain immediately commences the biological equivalent of soldering wet wires together into a functional circuit that can later be retrieved, activated, and read more quickly than the “get directions” option in Google Maps. The gallery in the brain that houses and displays the vast number of spatial maps read each day is found as a pair of structures in all vertebrates, called the hippocampi. It has been known for at least thirty years that removal of the hippocampi in both rats and birds disrupts navigation by landmarks under laboratory conditions, and as has been demonstrated more recently in natural settings, such removal prevents pigeons from forming the rich landmark representation needed to guide their way home. As one might predict, the hippocampi of homing pigeons with experience in navigation are larger compared to inexperienced individuals and to non-homing pigeon breeds.

Pigeons can find their way home over long distances even when released from a new location by setting the proper bearing

in consultation with a compass that must be both reliable and accessible to the pigeon’s brain. Kramer showed that on a cloudless day birds rely upon the position of the sun, calibrated to the time of day by referencing an internal clock, as a compass. As long as there are some patches of blue sky, the pigeon can determine the position of the sun obscured through the clouds by “seeing” the polarization pattern of sunlight in the ultraviolet range. On completely overcast days, the compass, much like those people carry along when journeying into the woods, exploits the dependability of the magnetic field of the earth to provide proper heading. Evidence that pigeons use the geomagnetic field for orienting was demonstrated by Cornell University ornithologist Charles Walcott in 1974. Disrupting those cues by saddling birds with bar magnets or crowning them with magnetic induction coils resulted in disorientated, lost pigeons—but only under conditions of overcast skies. The nature and location of the peripheral receptors that perform the initial step of capturing the physical stimulus and subsequently representing its properties in the electrical impulses that are sent into the brain was until very recently largely unknown. Initially, activity recorded from neuronal fibers containing tiny quantities of the magnetic-sensitive mineral magnetite found in the beak was considered a leading candidate, but in 2012 neurobiologists at Baylor University reported cells in the inner ear of pigeons that were exquisitely sensitive to the direction, intensity, and polarity of a magnetic field. This vestibular location is more suitably positioned than the beak to integrate magnetic sense with information about self-motion when setting the proper directional bearing during homing. Regardless of the mechanism, these unusual sensory abilities should give pause to wonder, following the example of philosopher Thomas Nagel about the echolocating bat in his famous refutation of reductionism, what is it be like to be a pigeon?

Perhaps Charles Darwin (1809–1882) was influenced by observations of the pigeons in the breeding loft at his home when he proposed, “the difference in mind between man and higher animals . . . is one of degree and not of kind.” Robert Epstein, a student of B.F. Skinner, was curious by *just how much* when he initiated the Columban Simulation Project that, among other questions, asked whether pigeons when reinforced in properly crafted experiments perform all of the clever tricks—self-awareness, insight, symbolic communication—that constitute what we call “thinking.” Darwin may have smiled while reading about one of the project’s more newsworthy observations, that a pigeon pecked at a dot on its wing that could only be observed by looking in a mirror, rather than pecking at the dot on the mirror. Although that result may seem trivial upon first glance, it was initially received by the psychology community with a fair degree of surprise because it was the first report of any animal

INTRODUCTION

American artist B.J.O. Nordfeldt (1878–1955), born in Tullstorp, Sweden, was a modernist deeply concerned with formal aspects of art such as composition, positive and negative space, and mastery of its materials. And although subject matter was of less importance, and he frequently seemed emotionally removed from it in any immediate way, certain themes related to Nordfeldt’s heritage recurred in his art, especially in his fullest maturity in the final decade of his life. The sea was one such subject, as were birds. Seagulls appeared often in his work and were familiar to him from the seaside area near Jonstorp, Skåne, in the southwestern coastal part of Sweden, where he lived most of his first years. Other birds were also depicted in his abstracted images, including pigeons, which he used as a subject in at least five different paintings of the 1950s. The Hillstrom Museum of Art’s oil *Two Pigeons* (1952) is from the height of Nordfeldt’s career, displaying his abstracting tendencies while perhaps also having an emotional resonance to pigeons from the artist’s early days. In addition to examining the artist and his depictions of pigeons, this study will also consider the fascinating birds from a cultural as well as a cognitive and neurobiological point of view.

Two Pigeons was donated by Museum namesake Richard L. Hillstrom in 2000, the first of two works he gave by the artist. The other is a 1916 watercolor, *Women on the Shore—Provincetown*, from the period when the artist spent summers and a winter in the Massachusetts seaside artist colony. The Museum has three other works by Nordfeldt, including a large oil painting, *Red Earth* (1935), a bequest from Emily Abbott Nordfeldt, the artist’s widow. It relates to one of two periods when the artist taught at the Minneapolis School of Art (later the Minneapolis College of Art and Design). Another is a color woodblock print, *The Tree* (1906), from early in his career when his formal explorations led him to embrace an aesthetic influenced by American artist James Abbott McNeill Whistler (1834–1903) and by Whistler’s and others’ emulation of the style of Japanese art. This approach, relying on abstract patterns of shapes and on flattening of space, was one of several modes that Nordfeldt explored during his career. Each of the Museum’s works by Nordfeldt, including the most recent acquisition, *The Lower Bay from the Singer Tower* (c. 1915), an example of the artist’s highly regarded etchings of New York and other cities dating in the mid 1910s, is an example of one of his several approaches.

EARLY LIFE AND TRAINING

Born Bror Julius Olsson, the artist, who later added his mother’s family name Nordfeldt (to differentiate himself from another artist named Julius Olsson), spent his first thirteen years in his native Sweden. His father, Nels Olsson, worked variously as a farmer, a painter, and a decorator of carriages. He and Nordfeldt’s older brother Oscar left for America in early 1891 and the rest of the family followed later that year. They settled in Chicago, immersing themselves in its Swedish-American community. One of Nordfeldt’s first jobs was for the Swedish newspaper *Hemlandet*, doing typesetting and other odd jobs. An editor of the paper, who noticed Nordfeldt’s artistic ability in the sketches he constantly drew, urged him to enroll in classes at the Art Institute of Chicago, which he did in April 1896.

Nordfeldt excelled at the Art Institute School, especially after he learned English and was no longer reliant on a Swedish-speaking janitor who helped him interpret. He studied through March 1898, and then after a hiatus returned in May 1900. One of his teachers there was Albert Herter (1871–1950), who taught color and composition. Herter had been commissioned by the McCormick International Harvester Company of Chicago to paint murals for a display at the Paris Exposition of 1900 and he hired Nordfeldt to assist with the project. Nordfeldt was also hired by Stanley McCormick to help install the murals in Paris, where he went later that year.

This was the start of a two-year period abroad, the first of numerous domestic and international travels throughout the artist’s career. In Paris, Nordfeldt enrolled at the famous Académie Julian art school. Then finding the instruction too academic, he left after only a week or so to work on his own, taking on four German students to provide some income. During this time he managed to have one of his paintings accepted at the Salon des Artistes Français. Becoming interested in Japanese color woodblock printmaking, in 1901 he moved to Reading, England, to study the process at the Oxford Extension College with F. Morley-Fletcher (1866–1950), the pioneer in introducing the method to the Western world. After this training, Nordfeldt headed to his native Sweden where he settled near Jonstorp, close to relatives, and while renting an inexpensive cottage near the sea made woodcut prints of area subjects, including the shoreline and its birds.

Nordfeldt returned to Chicago in 1903, taking a small studio in one of the buildings originally built as shops for the 1893 Chicago World’s Fair. It later became an artist colony that also included poet Carl Sandburg (1878–1967), writer Sherwood Anderson (1876–1941), and famed economist Thorstein Veblen (1857–1929), the latter the subject of one of numerous portraits Nordfeldt painted at this time. The artist also continued working

the absolute shapes that would give the feeling of the emotional impact. . . .” Such an abstract approach can readily be seen in the Hillstrom painting *Two Pigeons*, which is pared down to the bare forms and outlines that convey the qualities of the birds. The artist does not bother, for instance, with any individual feathers, and it has been reported that if anyone were attracted to a particular detail in one of his paintings, he would then paint out that detail, so it did not distract from the overall impact. Art critic Margaret Breuning in *Art Digest* in 1945 commented on this attitude, praising the artist for “frittering away none of the effect by irrelevant details.”

Other elements of Nordfeldt’s stylistic philosophy were described in a 1953 letter to a student researching his work and included strong concern for a compositional balance in his works as well as including recognizable imagery that, however, is not allowed to become overly important: “My belief is in three dimensional rhythms where solids and voids have equal consideration. Where each creates the other. I also believe that since all painting is borrowed visual experience, there must be a recognition element to serve as a bridge between abstract form and the beholder. Without the recognition element forms and void become sterile. But on the other hand too much tends toward ‘eyefooling.’ So the balance must be held very circumspectly.” The Hillstrom *Two Pigeons* certainly shows such an approach, with its well-planned composition and its controlled degree of realism.

Nordfeldt’s abstract and carefully considered compositional approach was frequently applied to a handful of recurring motifs. There were numerous paintings related to the sea and the coast, which have been connected by critics and historians to the artist’s childhood association with his native Sweden. A certain sentimental attachment was thus discerned in the artist’s works, even though his formal emphasis would seem to downplay emotional involvement with his subjects. Regarding his maritime paintings, in the same letter cited above, Nordfeldt noted his Swedish birth, continuing, “I have always been interested in the sea and the loneliness of the sea, and thus I try to create the feeling of loneliness, or depth, or weight, of volume and force.”

NORDFELDT AND PIGEONS

Another frequent theme in his painting in this late period was birds of different types. Many of these works depict seagulls or other shore birds and relate to his attachment to the sea, but Nordfeldt also made multiple paintings of owls, crows, and pigeons. The artist and his wife made drives around Lambertville where they observed birds flocking and flying, and Emily, later commenting on her husband’s productivity in his New Jersey studio, mentioned birds among a handful of subjects that he painted from sketches and memories.

Pigeons were the subject of several paintings by Nordfeldt between 1950 and 1952. These included the first, a work now in the Georgia Museum of Art in Athens titled *Pigeons* (1950); the similar Hillstrom painting (1952); and a group of three others painted between them. The Georgia work established the series when it was included in the artist’s 1950 monographic exhibition at Passedoit Gallery. It was, in fact, the first painting sold from that exhibit, as was noted in a letter from painting owner Georgia Passedoit to Emily. That letter was written only five days before the exhibit closed, and in the end, although there was critical praise for the exhibit, *Pigeons* and only two others of the twelve shown were sold.

The Georgia painting features three birds against a diagonally lined ground similar to that in the Hillstrom painting. It measures 32 x 40 inches and includes a bordering element around its central portion, which if removed would make it very similar to *Two Pigeons* in both appearance and scale. Before its 1959 donation to the Georgia Museum of Art by Ms. Passedoit, *Pigeons* was illustrated and featured in a short article by Dorothy Adlow, art critic for *The Christian Science Monitor*, in the July 17, 1958 edition, which praised its “monumental breadth.”

One of the three other pigeon paintings by Nordfeldt, titled *Three Pigeons* (1951), does not appear to have been shown at any of Nordfeldt’s Passedoit exhibitions and was sold in early 1952 to a Los Angeles collector. The other two, *Pigeons on Roof* and *Pigeon Landing* (both 1951), were featured in Passedoit’s 1952 exhibit and one or both were mentioned by name in positive reviews in *Art Digest*, the *New York Herald Tribune*, and *Pictures on Exhibit*. Perhaps because of the sales of two paintings depicting pigeons and the positive reviews of two others, Nordfeldt returned to the theme soon after to create the Hillstrom painting, which can be seen as a further refinement of what he had first done in the Georgia painting. *Two Pigeons* is not signed but bears an inscription on its back by Nordfeldt’s widow Emily dated January 20, 1957 that attests to its authenticity and gives its date and title. A letter two days later from her to Georgia Passedoit notes that she had set the price of *Two Pigeons* at \$300 (which can be compared to the price of \$275 that Richard L. Hillstrom paid in 1972 when he purchased it from New York’s Zabriskie Gallery).

Two Pigeons had been sold before April 2, 1957, when Ms. Passedoit wrote a letter to Mrs. Nordfeldt informing her that the buyer was George H. Fitch, who then lived on Madison Avenue in New York City. Fitch was an avid art collector who served as president of the preservationist Municipal Art Society in New York. He was also a board member of the Yale University Art Gallery, and, later, a trustee of San Francisco’s Fine Art Museums, and he was praised at the time of his death as one of that city’s most passionate collectors of American modernist art from the