WITH NO OTHER animal has our relationship been so constant, so varied, so enriched by symbol, myth, art, and science, and so contradictory as has our relationship with birds. Since earliest record, birds have served as symbols of peace and war, as subjects of art, as objects for study and for sport. Birds and their eggs range from the most exotic to the commonplace: the food on our table. Their command of our imagination is not

surprising because they are astonishing creatures, most notable for their versatility, their diversity, their flight, and their song.

Birds are conspicuous and are found everywhere. We find Snowy Owls within the Arctic Circle and sandgrouse in the deserts of the Middle East, the White-winged Diuca-Finch at the highest elevations of the Peruvian Andes, Emperor Penguins diving hundreds of meters beneath Antarctic seas, parrots in the rainforest of Brazil, and ostriches in the arid plains of southern Africa.

These highly mobile creatures are travelers of the long distance and the short. Some birds, like the Nicobar

Peacocks, an 18th century oil painting by Dutch artist Melchior d'Hondecoeter. The Metropolitan Museum of Art, Gift of Samuel H. Kress, 1927.

The Strange, Wonderful, Enduring Relationship of **MANS**

by Frank B. Gill and Joseph Ewing

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Pigeon in Indonesia, move incessantly from island to island, while others are master navigators, traveling phenomenal distances. The Sooty Shearwater migrates from islands off Australia to the coasts of California and Oregon, the Arctic Tern migrates from New England to the Antarctic, and the Rufous Hummingbird migrates from Alaska to Mexico.

And birds please the eye. Little in nature is more extravagant than the Twelve-wired Bird-of-Paradise, more subtly beautiful than the Evening Grosbeak, more stylish than the Horned Sungem, or more improbable than the Javan Frogmouth.

All these qualities seem to have provoked wonder and a sense of mystery since the dawn of human existence. Indeed, in almost every

primitive culture birds were divine messengers and agents: To understand their language was to understand the gods. To interpret the meaning of the flight of birds was to be able to foretell the future. Our words *augury* and *auspices* literally mean bird talk and bird view. By the time Greek lyric poetry was flourishing (5th and 4th century BC), the words for bird and omen were almost synonymous, and a person seldom undertook an act of consequence without benefit of augury and auspice. This practice prevails in Southeast Asia and the Western Pacific.

As symbols of ideology and inspiration, birds have figured largely in most cultures and in many religions. The dove was a symbol of motherhood in Mesopotamia, and was especially associated with Aphrodite, the Greek voice of oracles, and in Islam it is said to call the faithful to prayer. In Christianity it represents the Holy Spirit and is associated with the Virgin Mary. Bearing an olive branch in its bill, it continues to be a potent symbol of peace, most strikingly represented in Picasso's painting, The Dove of Peace. In contrast, the dove was a messenger of war in early Japanese culture.

The eagle appeared as a symbol in Western civilization as early as 3000 BC in the Sumerian city of Lagash. In Greek mythology the eagle is the messenger of Zeus. At least since Roman times, the symbolic eagle in Europe was the Golden Eagle, and that species also was the war symbol of many North American Indians at the time of early English settlement. In 1782 when Charles Thomson, Secretary of the Continental Congress, designed an eagle as the symbol of the fledgling United States, he chose the Bald Eagle. Among the members of the Congress who opposed any eagle as a symbol for a republic was Benjamin Franklin, who opposed the Bald Eagle specifically because, he said, it



A copy of a wall painting of geese from the Tomb of Itet. (The original is now in the Cairo Museum.) Ca. 2600 B.C. The Metropolitan Museum of Art, Rogers Fund, 1931.

was "a bird of bad moral character." He proposed instead the native wild turkey. As we know, Franklin lost the argument.

Less common than the eagle, but prevalent in myth and legend, the raven has had a long but checkered career. As Apollo's messenger, the raven reported a nymph's infidelity and, as a consequence, Apollo changed the bird's color from white to black. After 40 days Noah sent forth both a dove and a raven to discover whether the flood waters had receded. The faithless raven, according to some accounts, did not return and so earned Noah's curse and, once again, a color change from white to black. The belief in the raven's color change appears in a Greenland Eskimo legend in which the Snowy Owl, long the raven's best friend, poured sooty lamp oil over him in the heat of a disagreement.

In other legends the raven plays a more favorable role. North American Indian folklore described the raven's generosity in sharing its food with men stranded by flood waters. Norse sailors, like Hindu sailors half the world away, carried ravens, which they released to guide them to land. Two ravens were widely reported to have guided Alexander the Great through a duststorm on his long journey across the Egyptian desert to consult the prophet at the Temple of Ammon.

Centuries later, Konrad Lorenz shared the favorable view in his deeply moving account of a young raven that formed a lifelong attachment to him:

He tried to be with me as much as he possibly could, accompanying me on all my walks, either flying from tree to tree, or, with a favoring breeze, sailing high above my head and following me in the same way as, with other motives, vultures follow a caravan. During the time I was [away] from home he searched for me everywhere, specially and very intelligently in those places where we had been together....

As accompanying a walking man means much troublesome wheeling and flying for a raven. I wanted to accelerate my movements by the use of a bicycle. It was difficult at first to convince Roah [the name Lorenz gave the bird in what he calls a feeble imitation of the raven's deep, unbirdlike call] that the bicycle was harmless, so I shut him in his cage with the bicycle, putting all the food on the saddle. He loved the bicycle for ever afterwards, the more so when he understood that it was much easier and more fun to follow me when I was cycling. I had only to wheel the machine out of the house to make him utter a joyous series of starting calls and send him flying along our

usual route. He never understood why I could not fly, and to the end of his days tried to induce me to take wing.

Not only is our association with birds as old as human society, but it is characterized by the diversity of our interest in them. We can do no more here than give a few examples of the diversity and, by way of those examples, come finally to the rich and varied science of ornithology. We begin with avian flesh and eggs on our table.

The domesticated chicken existed in India before 3000 BC and was known in China by 1500 BC. It appeared in Mediterranean countries at the same time, though its early use there may have been more for religion than food. Large-scale breeding and raising of poultry for food by the Romans developed, but the practice on that scale disappeared after the fall of the Roman Empire and did not reappear in Europe until the 19th century. Mallard ducks and geese were domesticated in the Far East nearly 1000 years before Christ. Domestication of the turkey in Mexico appears to be very ancient, and the bird was imported into Europe by the middle of the 16th century. (There is some belief that Christopher Columbus carried



turkeys to Europe in 1492.)

Domestic fowl were brought from England to the Jamestown Colony in 1609, and through the 18th century other forms were imported from Asia. Because of ever-growing interest in new breeds in the United States, the first American poultry exhibition was held in Boston in 1849. In 1873, the American Poultry Association (APA) was founded, the oldest association of livestock breeders and growers in the country. In 1905, the APA published the American Standard of Perfection. Now in its 1983 edition, the book is a wonderfully informative and entertaining illustrated guide to the ideal characteristics of more than 100 domestic fowl, ducks, geese, and turkeys, and is one piece of evidence that the chicken is certainly one of the most refined domestic animals.

Trapping small passerine birds, such as the skylark, began very early. Greek vase paintings of bird nets appeared by the 6th century BC. These birds were considered a great delicacy, as they still are in Italy and parts of the Far East. The invention of firearms enabled us to kill birds more easily, and the sport of hunting for its own sake developed with considerable style and ritual. In our own time, building a duck decoy has itself become an art.

Like birds themselves, birds' eggs have been prized as food for thousands of years. For both eggs and flesh, there seems to be an interesting and not very surprising, evolutionary connection between

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inconspicuousness and palatability. This connection provoked so much interest that a tasting panel was formed by the Department of Game and Tsetse Control in Zambia in the early 1980s. The results of eating and rating some 190 species generally bore out a correlation between declining palatability of flesh and increasing conspicuousness of the animal. A tasting panel in Cambridge, England, came to much the same conclusion about birds' eggs: the more conspicuous the egg shell, the less palatable the egg.

The pigeon has had a dual role as

a carrier and as a prized food. There were ancient pigeon posts in Babylon, and the bird was used as a carrier in early Egyptian dynasties. Aelian, a Roman writer active in the early 3rd century AD, described the use of a carrier pigeon by an athlete named Themistocles to inform his father of his victory in the Olympic Games. Use of carrier pigeons as messengers was very well developed in Roman times and continued through the centuries until the invention of the radio, telegraph, and telephone, when the practice was largely abandoned except for sport and research.

Falconry, on the other hand, is blessed with a modest renascence. The sport may have originated as long as 4000 years ago. It flourished in Europe in the Middle Ages and the Crusaders brought back Islamic techniques that increased and refined European falconry. After a sharp decline of Peregrine Falcons and several small accipiters in Europe and North America in the 1960s, breeding and release programs arose, and now the ancient sport, with its historical tradition of studying and protecting birds of prey, is being revived.

Bird farming on a very large scale occurred in the years before World

War I when more than three-quarters of a million ostriches were bred in South Africa each year. There was then a great demand for their feathers for ornamentation, a fashion that does not seem to have been popular in Western civilization before the late 19th century. Ostrich farming on a smaller scale continues today, with the skins harvested for use in leather goods. But use of feathers as ornamentation was widespread among North and South American natives, in Africa, and in the Western Pacific from the earliest known times. The elaborate feather capes of the Hawaiian kings and the feather mosaics of the Mayas and Aztecs were works of high art. Among native North Americans, particular uses of feathers as badges of rank and status were common. Feather clothing was also common for protection from weather, much as goose down is widely used today.

Perhaps the greatest influence of birds on art has been in music. The earliest piece of English secular music of which we know, "Summer is Icumen in," is a canon for four voices and the words are those of the 13thcentury lyric in which the cuckoo welcomes summer with its song. The cuckoo, nightingale, and quail are heard in Beethoven's Sixth Symphony. The 18th-century composer Boccherini wrote a string quartet called "The Aviary," perhaps the first complex composition in which a number of birds are imitated.

Birds as subject and as metaphor are found frequently in opera. Wagner wrote an aria about owls, ravens, jackdaws, and magpies for *Die Meistersinger*. In Puccini's *Madame Butterfly* a character sings of a robin, in *La Boheme*, another sings of swallows. In what is probably the most popular aria in the most popular opera of all time, the "Habañera" in Bizet's *Carmen*, the opening words are "Love is a rebel bird that no one is able to tame." Janacek's *The Cunning Little Vixen* is a 20th-century "nature opera" with animal characters that include numerous birds, and in Gershwin's *Porgy and Bess* there is a buzzard. These examples are only a few of the many that come to mind.

Composers Maurice Ravel and Bela Bartok were knowledgeable about bird species and their songs. Ravel made use of his knowledge in words for orchestra, voice, and, most strikingly, piano. Bartok's interest was so persistent that during a visit to the mountains of North Carolina, he took long walks and transcribed bird songs previously

Birds appear in paleolithic cave paintings in France and Spain as early as 14,000 BC, and as neolithic cave paintings in Eastern Turkey, 8000 years later.

unknown to him. It is believed that much of the transcription found its way into the *Piano Concerto No. 3*, his final work.

In rock music, the best treatment of birds may be Jimmie Thomas's 1958 "Rocking' robin," a solid hit when first sung by Bobby Day and revived to equal acclaim by Michael Jackson and The Jackson Five. Swallows, chickadees, and crows urge the robin to "Go, bird, go," a raven teaches him the Charleston, and he turns out to be a better dancer than buzzards or orioles.

Conway Twitty was a contemporary of Elvis Presley and was one of the best early rock-and-roll singers. One of his most popular songs asks the question "Is a Bluebird Blue?" Unfortunately, Twitty is now less remembered for his own music than for his transformation into Conrad Birdie in the Broadway musical *Bye*

Bye Birdie.

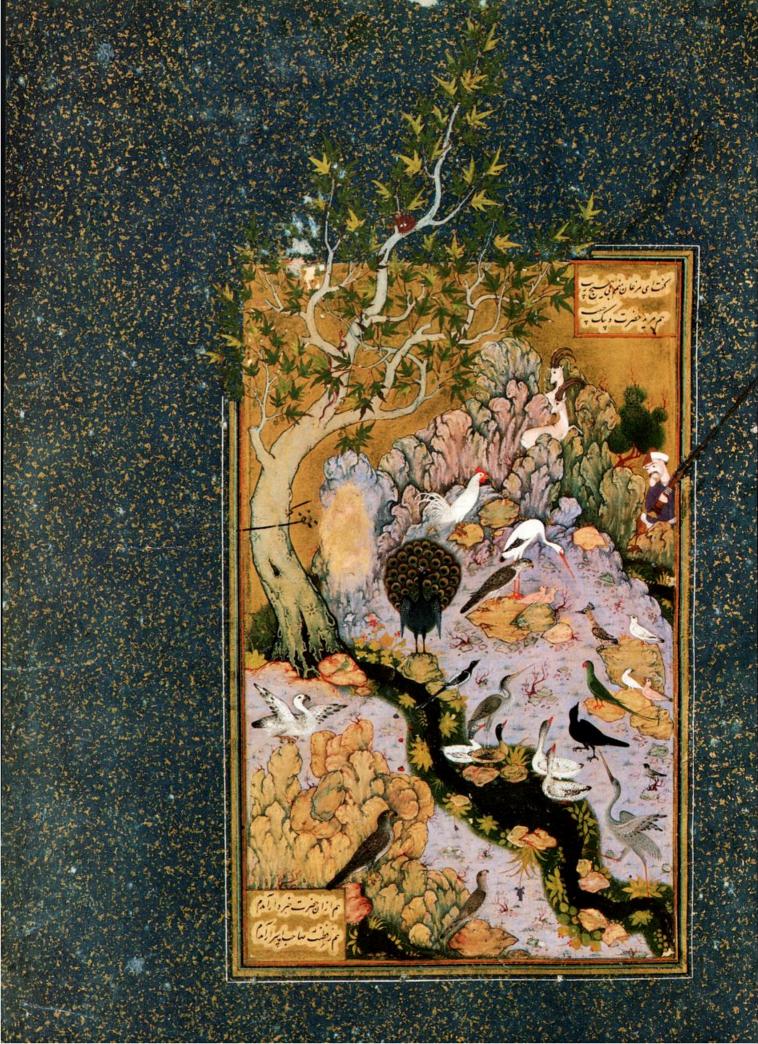
Another interesting confluence of the name of the musician—in this instance, the nickname—and the name of the music brought together one of the most memorable of American jazz musicians and one of the most memorable tunes: Charlie "Bird" Parker and "Ornithology."

Our enjoyment of bird sound in music extends beyond mere imitation. The phonograph recording of the singing of a real nightingale is played in performances of Respighi's *Pines of Rome*, and James Fassett, an American composer, has written a *Symphony of Birds* that consists entirely of the recorded songs and calls of real birds.

The role of birds in painting and sculpture is impressively large. Birds appear in paleolithic cave paintings in France and Spain as early as 14,000 BC, and as neolithic cave paintings in Eastern Turkey, 8000 years later. In Egyptian tombs at Thebes, very accurate bird paintings appear before 2000 BC. One depicts a man force feeding cranes with a funnel in exactly the same way geese are fed in the Perigord region of France today. In both painting and sculpture, the Egyptians' accuracy has seldom been matched. In The Outermost House, Henry Beston wrote of this unique power of ancient Egyptian artists "to reach, understand, and portray the very psyche of animals....A hawk of stone carved in hardest granite on a temple wall will have the soul of all hawks in his eyes."

In Knossos, on Crete, a famous Minoan fresco of a partridge and a Hoopoe survives from about 1800 BC. A few centuries later birds begin

Iranian painting entitled Concourse of the Birds by Habib Allah, in the 17th Century, to accompany "Mantiq at-Tayr" (Language of the Birds) by Farid-al-din 'Attar (1119–1230). The Metropolitan Museum of Art, Fletcher Fund, 1963





Krishna Slaying the Demon Crane, page from Bhagavata Purana manuscript. Ca. 1800. The Metropolitan Museum of Art, Gift of Jeffrey Paley, 1975.

to abound in Greek vase painting, some depicted with a quite modern realism. In Roman frescoes and mosaics, birds are sometimes stylized, but many are not. Among the most vibrant and brilliantly colored are those in mosaics from Pompeii that are now in the National Museum of Naples.

In much of medieval art, birds became so highly stylized that it is often impossible to identify the species. A remarkable exception is an assemblage of species in a 13th-century illuminated manuscript of the Book of Revelations. The composition, in which the birds sit before a man preaching, is strikingly similar to Giott's famous painting of St. Francis preaching to the birds, with one late-comer arriving after the sermon has begun. Hieronymus Bosch's Garden of Delights (about 1500), is filled with birds, some realistic, though sinister, and some monstrous hybrids.

Birds appear frequently in English and Dutch nature paintings and still lifes of the 17th century, but the Romantic painters of the 18th century showed little interest in birds despite great enthusiasm in Europe at the time for Japanese prints in which birds abound. The impressionists and postimpressionists also showed

More remarkable still was Aelian's notion that the Purple Gallinule would hang itself if it discovered an adulterous wife....

little interest in birds, though van Gogh's last work, painted on the day of his suicide, is of a flight of rooks across a somber sky. Among 20thcentury painters, Matisse and Picasso showed recurring interest in birds. Some of the best of Picasso's work are the etchings of birds he did for a modern edition of Buffon's *Natural History*. In 20thcentury sculpture, Brancusi's sleek birds in both chrome and stone are memorable.

Birds are ubiquitous in literature. In his comedy The Birds, Aristophanes mentioned 79 species and was well informed about their habits and appearance, as his Athenian audience must have been; otherwise they would have missed much of the playwright's wit. For its perfect matching of avian and human characteristics, the play has been described as an "ornithomorphic view of man." One of the earliest lyric poems in English describes a quarrel between an owl and a nightingale. The cuckoo, nightingale, and lark probably appear in poetry more often than other species. The nightingale and the lark appear together in in the argument between Shakespeare's Romeo and Juliet about which of the birds they heard singing at dawn. Birds are prominent enough in Shakespeare's plays and poems to have led the scholar

James Harting to write an entire book on the subject, The Ornithology of Shakespeare, first published in 1871.

Some lyric poets were excellent ornithologists, notably the 17thcentury Englishmen Michael Drayton and Andrew Marvel, whose descriptions of birds are very precise. More recently, Shelley's skylark, Keats's nightingale, and Yeats's swan have become the best known birds in English literature.

Beginning as early as the 15th century, books with numerous bird illustrations began to appear. Pierre Belon wrote a History of the Nature of Birds with 160 woodcuts, which was published in Paris in 1555. Illustrated works began to appear in ever greater numbers in the 18th century. The Count de Buffon's Natural History of Animals, published in Paris over the last half of the 18th century, contained almost a thousand plates illustrating birds. Between 1731 and 1743, Mark Catesby, an Englishman, published many hand-colored plates of birds of the Carolinas, Florida, and the Bahamas. Catesby's birds are static and unlifelike, but the beauty of the colors is undeniable. At the end of the 18th century, another Englishman, Thomas Bewick, produced very fine bird engravings that were distinguished by detailed rendering of the background. He was followed by, and doubtless influenced, John James Audubon, the best-known painter of birds, who published between 1827 and 1838 his enormous four-volume work, The Birds of America. Also in the mid-nineteenth century, John Gould, aided by a number of other artists, produced dozens of grand books of bird illustrations. By the turn of the century, a great flourishing of bird illustration was underway and it continues to this day. It was closely associated with the rise of modern ornithology and of field guidebooks.



A primitive bird mask from British Columbia in the late 19th or early 20th Century. Made from wood and feathers. The Metropolitan Museum of Art, The Michael C. Rockefeller Memorial Collection, bequest of Nelson A. Rockefeller, 1979. Photograph by Bob Hanson.

the early 20th century were Bruno Liliefors of Sweden, Archibald Thorburn of England, and Louis Agassiz Fuertes of the United States. Fuertes, with his unerring eye and his faultless sense of the salient char-

Recently, Shelley's skylark. Keats's nightingale, and Yeats's swan have become the best known birds in **English literature.**

acteristics of any bird, is believed by some to have made his birds more dazzlingly alive than any other painter.

With all the disparate appeal of birds, it is little wonder that some human beings have chosen to study them. Aristotle's 4th-century BC Among the finest illustrators of | History of Animals is the first effort

we know of in Western culture to account systematically for what we observe in nature, and the writing reflects the first organized scientific research. Birds figure prominently in all of Aristotle's work in natural history. Alexander of Myndos, in the 1st century AD, wrote a three-volume work on animals, two of which are about birds. Only fragments survive in quotation. Pliny the Elder (AD 23-79), a Roman who wrote in Greek, devoted much attention to birds in his On the Characteristics of Animals. Until the Renaissance, our knowledge of the natural history of birds depended largely on these and other Greek and Roman writers. They told us much that was reliable, but they also left us with many wrong notions. The quotations from Alexander's work reflect close and accurate observation, but Aelian was steadfastly uncritical of his sources and perpetuated two remarkably wrong notions about the behavior of continued on p. 159