ONE

STRANGE BIRDS

> Art is solving problems that cannot be
> formulated before they have been solved.
> The shaping of the question is part of the answer.
>
> Piet Hein

INTRODUCTION

This book sets out to explore the intriguing multispecies relationships between humans and birds and birds and humans during the Bronze Age in North Europe. I will argue that avian creatures were central to Bronze Age people and their *worldings*.[1] However, before we begin this odyssey, let us put one thing straight, right from the beginning: I am neither a twitcher nor a birder. Some of the latter would even question that this is a book about birds. That said, I do enjoy the company of birds. As I outlined in the preface, it is some of my alluring meetings with avian creatures that persuaded me to write this book. My interest in our feathered friends is grounded in the commensal bond that exists and is exposed in human–bird relations. As well as humans showing

[1] The notion "worlding" stems from the seminal work of Philippe Descola (2010a, 2013) and will be used in this book as a connotation of people's perception of their world, people's cosmologies and ontologies. The notion will be properly presented later in this chapter.

an interest in birds and their being, birds seem to show a similar interest in human beings.

A central motivation behind writing a book about *Birds in the Bronze Age* is the commonalities that birds and humans share. As the great analogist Claude Lévi-Strauss (1908–2009) phrased in his seminal work *The Savage Mind*:

> They are feathered, winged, oviparous and they are also physically separated from human society by the element in which it is their privilege to move. As a result of this fact, they form a community which is independent of our own but, precisely because of this independence, appears to us like another society, homologous to that in which we live: birds love freedom; they build themselves homes in which they live a family life and nurture their young; they often engage in social relations with other members of their species; and they communicate with them by acoustic means recalling articulated language.[2]

The elaborate, ostentatious relationship between humans and birds – and vice versa – is the primary reason for writing this book.

Another key reason for devoting a study to *Birds in the Bronze Age* is the manner in which humans envy birds. Their ability to elevate and swiftly move across the sky on their wings seems to plant a longing in people's hearts and minds; a longing to be able to cross endless plains and woods, to explore beckoning blue mountains, and to cross ceaseless seas and oceans to reach unseen shores. Not even the sky is the limit.

Humans have long used birds of all kinds, for both practical and economic reasons. Our winged friends keep us stuffed, warm and comfy. We eat their eggs and use their skins and feathers for clothing and ornaments. Their feathers are also traded, sometimes even as a currency.[3] We sleep on their down. Their bones, beaks, feather quills, wings, and talons are used as tools, ornaments, and instruments. Oil from birds can provide warmth, smooth leather and skin, and light up even the darkest night or cave.

There are other uses. In China, fishers have trained cormorants to catch fish for them, and people in Mongolia, Russia, and Europe have caught and taught raptors and owls to hunt for them.[4] In North Europe, people would catch whinchats, robins, Eurasian wrens, goldcrests, and young waders such as common greenshanks, spotted redshanks, and wood sandpipers for the purpose of household pest control.[5] Even the famous naturalist Carl von Linné (1707–1778) would keep treecreepers in his house in Uppsala to make his home more pleasant. In New Zealand, some Maori groups would clip the

[2] Lévi-Strauss 1966, 204, first published 1962 in French under the title *La Pensée Sauvage*.
[3] Swadling 1996; Earle 2002; Corona 2005; Gascoigne 2007.
[4] Rose 1987; see also Collar et al. 2007; Cocker 2005, 2013.
[5] Svanberg 2013, 16–18; see also Ingersoll 1923, 95–97 for similar stories from around the world.

wings of seagulls and use them in their gardens to keep their vegetable patches free of caterpillars and other pests. The seagulls were also used as guards to signal uninvited guests and enemies.[6]

People all over the world keep birds as pets, predominantly because they entertain us. However, the bonds that are created between birds and their guardians are strong and lasting. Some birds even appear to possess power over their caretakers, imbuing them with the courage to fly over times of great despair.[7] Just being surrounded by birds and observing them has proven to increase one's health.[8] Healing powers have been attributed to many birds,[9] often built on an analogic reasoning (read sympathetic magic) that says, "you are what you eat." If a snake has bitten someone, consuming a snake-killing bird, such as a blue or green peafowl or a buzzard, could cure her. Medieval texts suggest that people with failing eyes could cure themselves by consuming dried owl eggs, a bird renowned for its great sight.[10] The spiritual powers of birds could also be used to gain wisdom. Among people in North Europe, it was widely known that a magical white feather could be found under a raven's right wing. This precious feather and its spiritual power would be bestowed upon individuals trusted by a raven.[11] Among other things, the white feather from a raven is said to enable invisibility.[12] This birdlore is widely spread in Europe, and in some areas, it is told that when a raven is near death, it swallows its white feather that then turns into a stone, often described as a magical white stone. The owner of this magical stone will not only gain access to the great knowledge of ravens; they will also become clairvoyant.[13]

From historical sources, anthropological studies, and folklore from all around the world, we have learned that birds have been faithful fellow travelers that inform humans about the past, present, and near future.[14] We best know the use of birds in the unfolding present. The behavior of birds has been and is still used to predict weather. Through the birds' "internal clock," caused by the basal hypothalamus sensitivity to the length of daylight that triggers bird hormones, some predictive migrations are used by hunters,

[6] Riley 2001, 90–91.
[7] See, for example, Reina & Kensinger 1991; Bailleul-LeSuer 2012; Macdonald 2014; Bloom & Grevie 2016.
[8] Cox et al. 2017.
[9] Lévi-Strauss 1966, 8–9; Tillhagen 1978; Corona 2005; Low 2014, 284.
[10] Collar et al. 2007, 72-75; see also Tillhagen 1958, 1978.
[11] Svanberg 2013, 74.
[12] Grundtvig 1883, 84.
[13] E.g., Winge 1904, 315; see also Tillhagen 1978, 53, 58; Svanberg 2013, 74–76; Bergengren 2015, 45, for variations of this birdlore.
[14] E.g., Nilsson 1858; Ingersoll 1923; Best 1942; Armstrong 1958; Majnep & Bulmer 1977; Tillhagen 1978; Tyler 1985; Feld 1990; Reina & Kensinger 1991; Riley 2001; Ciraolo & Seidel 2002; Collar et al. 2007; Krech 2009; Serjeantson 2009; Cocker 2013; Svanberg 2013; Fisher 2014.

herders, and farmers to estimate the coming and going of seasons.[15] Birds and their callings can also be used as alarms about threatening predators, snakes, and enemies. More than once, birds have alerted humans about upcoming earthquakes, tsunamis, and volcanic eruptions.

Migrating birds have also provided directions to new hunting grounds, sometimes even islands that are situated beyond the horizon. Migrating birds were probably one of the most significant signs and pointers behind the discovery of previously unknown continents such as America and Australia, or remote islands like New Zealand.[16] It is no coincidence that the oldest material traces of humans on the American continent are roughly contemporary to the second introduction of ravens – whatever creature leads the other to the Promised Land is, as the saying goes, written in the stars.[17] What kind of birds the first Australians trailed to discover the Antipodes are no longer known, but migrating pelicans would be hard to overlook.[18] Some Māori legends and myths inform us that it was migrating godwits that led the first people to New Zealand.[19]

The first arrival of humans to a new island or continent, ironically hinted at by migratory birds, sometimes led to mass extinctions of bird species, especially if the settlers found them tasty.[20] The case of the dodo on Mauritius is just the most famous one.[21] When Australia was discovered some 65,000 years ago, people met big avian megafauna that did not fear humans, and were soon extinct. All that is left today are subfossil bird bones and archaeological traces of big "barbies."[22] Similar avian extinctions occurred on New Zealand and a number of islands in the Pacific when these islands were first settled.[23]

Furthermore, to be able to navigate the merciless and unpredictable sea, fishers and sailors have often trusted birds – both to find schools of fish and to find their way back to land.[24] It could be a matter of life or death to bring birds on the trip – for if there is land to be found, birds will find it. The earliest written and most famous example of this well-documented practice must be Utnapishtim in the Epic of Gilgamesh, later retold as Noah in the Bible, who sent out birds to find emerging land after the Deluge.[25] Utnapishtim used a dove and a swallow before the clever raven found land, while Noah used a

[15] Birkhead 2008, chapter 5; Ackerman 2016, 195–237.
[16] Mulvaney & Kamminga 1999; Pauketat 2012.
[17] Marzluff & Angell 2005, 2012.
[18] Low 2014.
[19] Riley 2001, 61.
[20] Fuller 2001, 2013; Steadman 2006; Hume & Walters 2012.
[21] Fuller 2003.
[22] Low 2014, 143.
[23] Fuller 2001, 2013.
[24] Hornell 1946; McGrail 1983; Birkhead 2012.
[25] Gilgamesh 2005; Genesis 8:11.

raven, which failed twice before a white dove was successful. A similar story was later made timeless in *Landnámabók* when Floki Vilgerðarson brought three ravens on his trip to search for Iceland in 864 CE. Before setting out on his journey, Floki performed a sacrificial ritual. After an eventful voyage, he found himself lost in a prodigious fog, whereafter he started to send out his ravens to find land. As in the Epic of Gilgamesh and the Bible, the third bird sighted land and "Rafna-Flóki" was able to disembark.[26]

Both hunters and fishers used to watch birds to locate and catch their prey.[27] Herders use birdcalls and the flights of birds to detect possible dangers to their flock, and migrating and nesting birds signal to farmers the time to sow and harvest. In North Europe, farmers have used the arrival of migratory birds to signal the time to till the earth and sow in the spring, harvest in the summer, and slaughter in the autumn.[28] Yes, viewed from a relational ontology, the history of humans and birds are entwined.

An important reason behind our fascination in birds is the variety of avian creatures. Today about 10,400 bird species are known – about the same number of human ethnic and minority groups that are acknowledged by the United Nations. Birds are not only distinguished through different taxonomy, but also through their appearance, attributes, and behaviors.[29] Some birds stay in one place all year; others are more restless and migrate. Some prefer large flocks; others are solitary beings. Most birds are diurnal, but some are nocturnal. Some birds are outgoing and colorful; others are grey and dull. Some birds are dimorphic; others monomorphic. We find opportunistic and inquiring ones as well as more conservative ones that stick to safe routines. We find busy and lazy ones – some not even using their wings for flight anymore. The ability of some birds to sing and dance is enchanting, while others' vocalizations can best be described as noise. Some keep dead silent. There are big and tall birds and short tiny ones, bold and meek ones, curious and shy ones. When you start to ponder, the great variability among avian creatures in the world are only matched by the variability among humans.

In short, our interests in birds – which sometimes could better be described as an obsession[30] – is associated with the circumstance that no other creatures on Earth convey as many human traits as our feathered friends.

Like many human cultures and specific individuals, there is great variety in how birds mate. As with most humans, birds are often very passionate in their courtship. Anyone who has witnessed the heated dance of a pair of brolgas or

[26] Ingersoll 1923, 161.
[27] Michell 1959; Rose 1987; Cocker 2013.
[28] E.g., Magnus 1555, 1996–1998, 2010; Nilsson 1858; Svensson 1967; Tillhagen 1978; Svanberg 2013.
[29] Beletsky & Nurney 2006; Collar et al. 2007.
[30] Cocker 2001; Brunner 2017.

common cranes knows what I am referring to. Many birds alter their costume, dressing up before they start to woo their mates. Some bird couples bond for life, such as the faithful zebra finches, some eagles, and swans; other bird species have several partners at once, such as the pied flycatcher or lekking birds like peafowl and black grouse. Ruffs, quails, dunnocks, and house sparrows can best be described as salacious.[31] Common swifts, which are known only to land when they lay their eggs, are even known to have coitus while they are aloft, in a jiffy in the air.

Most birds take good care of their offspring, and those that do not, like the brood parasite cuckoos, are often met with equal amounts of fascination and caginess.[32] Personally, I found the Australian white-winged chough as enthralling as those birds that practice brood parasitism. These crow-like birds are known to kidnap young choughs from neighboring mobs, where after they use these young birds as "slaves" to help them to feed and defend their broods.[33]

In order to mate and to protect their offspring, some birds build intriguing nests. The entrapping nests of sociable weavers, golden-headed cisticolas, long-tailed tits, or blue wrens are skillful and impressive creations.[34] Some of these nests are even decorated to charm possible spouses. Satin and other bowerbirds create truly architectural structures with the main aim to lure choosy females to the nest by demonstrating their painstaking attention to detail. They also decorate the courtyard with "shiny things," such as pebbles, mollusks and bones. Different species of bowerbirds prefer different colors, which, for a novice birder like myself, might be interpreted as culturally learned practices.

An increasing number of bird species are known to use tools, a celebrated trait of *Homo habilis* that we share with other primates such as chimpanzees, bonobos, orangutans, gorillas, and other primates, but also a growing number of other animals such as elephants, bottlenose dolphins, sea otters, banded mongooses, North American badgers, American alligators, and mugger crocodiles. Green-backed herons use insects and other things as bait to catch fish, a skill that some crows also possess.[35] Other birds, like New Caledonian crows, goldfinches, and woodpecker finches use tools in different intriguing ways to access food.[36] In northern tropical Australia, black kites, whistling kites, and brown falcons have been seen carrying smoldering sticks to areas that need burning off – obviously "taking care of country." Thereafter, they just sit and

[31] Birkhead 2008, chapter 9.
[32] E.g., Davies 2015.
[33] Low 2014, 79–80.
[34] Burke 2012; Ackerman 2016, 68.
[35] Heinrich 2006; Cocker 2013, 393.
[36] Kaplan 2015, 49–61.

wait for their prey to expose themselves[37] – slow cooking par excellence. Several Indigenous groups in Australia have also witnessed black-chested buzzards using stones to crack emu eggs so that they can break through the thick shells.[38] Egyptian vultures use a similar technique to break ostrich eggs. Burrowing owls are truly cunning creatures, as they use manure from mammals to attract dung beetles – a delicacy. Male black palm cockatoos use a stick or a twig to drum on a carefully selected hollow tree to attract a partner to nest. The list of birds that use tools could be further expanded without much effort.[39]

Some birds even act as casual archaeologists; for example, several corvids are known to collect enigmatic shining objects. In northern Australia, we find another compelling example of treasure-collecting avians. Here, some Indigenous groups know the bowerbird as "the bone collector" because these birds collect human and animal bones, shells, stone artifacts, and shiny things to lure females to their proficiently created nests. This can turn into a critical interpretive dilemma for archaeologists, but it has also proven advantageous, in that archaeologists have made use of their collections to locate possible human activities in the surrounding area.[40]

As with humans, avians are social beings. About 80 percent of birds in the world are born altricial. That means that most chicks are born helpless and need the devoted care of their parents.[41] As a rule, the longer a chick dwells with their parents before it fledges, the larger the brain and the greater the increase of intelligences.[42] The longer the time a chick stays in the nest, the more it observes and learns from its parents – the transformation of knowledge and social codes. The same applies to most mammals, such as primates like you and me.

Birds use preening to reinforce their social bonds, which are sometimes lifelong. Sometimes bird families gather in clans and tribes.[43] Many species also breed in colonies, mostly for protection, but they also gather and roost for incomprehensible reasons.[44] Jackdaws love to associate with rooks, crows, and ravens for reasons we are unable to explain.[45] Young ravens gathers in large roosts. They pick their company with care, they cooperate to find and share food, preen and play, and put on whiffling displays to try to impress and allure

[37] Low 2014, 288–289; Bonta et al. 2017; see also Riley 2001 for New Zealand where black kites are known to do the same thing.
[38] Garde 2017.
[39] See Kaplan 2015, 49–61; Ackerman 2016, 67–71, with references.
[40] Solomon et al. 1986.
[41] Ackerman 2016, 49; see also Kaplan 2015.
[42] Ackerman 2016, 49; see also Kaplan 2015.
[43] Savage 1995, 66; see also Cocker 2005, 2013.
[44] See Marzluff & Angell 2005; Cocker 2016.
[45] See Cocker 2016 for a lengthy discussion about this habit.

potential chums.[46] Moreover, birds argue, fight, cheat, deceive, manipulate, kidnap, kill, and divorce; traits that admittedly are also apparent in humans.

In a gesture of altruism, many bird species warn others of danger. Rooks are known to gather in courts where misbehaving members of the mob are charged and put to trial. Sometimes these courts end with a death sentence and execution.[47]

As with humans, many birds like to play. The more playful a bird species, the larger the brain and more social they are. Many avian species are also known to be exceedingly territorial, and like humans they also vie for status and rank. The pecking order among hens can be as brutal as it is lethal. More importantly, birds raise their chicks as moral beings. Sometimes chicks stay around to help their parents raise the next brood – their own siblings.[48]

The most sophisticated human trait that our feathered friends share with us is their ability to express themselves vocally. Singing birds can stop time and take you to other places. It is no coincidence that Ludwig van Beethoven's *Pastoral Symphony* and Joseph Haydn's *The Season* mimic bird songs. Nightingales may be the most praised sound of European birds, having inspired a long row of compositions by masters such as Balakirev, Couperin, Glinka, Granados, Grieg, Händel, Haydn, Liszt, Mendelssohn, Milhaud, Rameau, Ravel, and Vivaldi.[49] It is also well attested that Wolfgang Amadeus Mozart had a pet starling between 1784 and 1787. He venerated the bird highly and was so attached to it that he held a funeral for the starling when it died. A week later, Mozart composed a divertimento to honor the departed mastersinger, a musical joke that consists of disjointed melodies and tunes created by the starling.

Highly esteemed composers and artists have a strong affection for birds, owing to the pitch in most birdsongs. This pitch follows the same scale that modern Western music applies,[50] or vice versa. The ruby-crowned kinglet, for example, masters a full octave in their melodious performances, and an Australian Magpie up to four.[51] Some paradise birds in New Guinea are even known to perform duets, which increases their possibility of finding a spouse.

It is not uncommon that birds learn to mimic vocalizations of other bird species. Starlings, northern mockingbirds, and brown thrashers are well known for stealing other birds' repertoires. Many times, this is done to impress potential partners; other times the purpose is more deceptive. Both white-winged shrike-tanger and bluish-slate antshrike mimic hawks or use their

[46] Heinrich 1989, 2006.
[47] Cocker 2016, 120–121.
[48] See Kaplan 2004, 2015, 107–119; Heinrich 2006, 269–294; Ackerman 2016, 102–135.
[49] Collar et al. 2007, 98–104.
[50] Low 2014, 77.
[51] Gray et al. 2001; Kaplan 2004, 2015.

hawk alarm to trick other birds in the surroundings to hide so that they can grab treasured food that they spot.[52] Nevertheless, the master of mimicking must be the lyrebird in Australia, a bird that lost its ability to fly. Lyrebirds learn their songs from their fathers, but they also steal songs and sounds from other birds in the vicinity to impress and lure females to mate. Besides the laughter of the kookaburra, lyrebirds often mimic the squawking sounds of the yellow-tailed black cockatoo, the contact calls of currawongs, and songs from the eastern whipbird, the golden whistler, and the catbird. Even the sounds of cars, chainsaws, and camera shutters have been documented.[53]

Charles Darwin (1809–1882) once argued that bird vocalizations are the best analogy to human language.[54] Not surprisingly then, a number of parrots, such as Amazon parrots, African grey, cockatoos, and parakeets, and songbirds such as the Australian magpie, lyrebirds, jays, mockingbirds, starlings, and a number of corvids can learn to master human voices. Some, such as African grey parrots, can learn hundreds of words and even arrange these into their own sentences to express their own will. Talking birds are believed to do so because of their cleverness. Alex, a well-known African grey parrot celebrity that was professionally trained by Irene Pepperberg, could distinguish shapes, colors, and materials. He had a sense of concepts such as bigger and smaller and same and different, and he counted quite well. Alex could figure out a number label from its position in a number line, and had the ability to sound out simple words. Alex could even make jokes. His intellect has been said to be comparable to an eight to nine-year-old child. When Alex spotted himself in a mirror for the first time, he asked the truly existential question: "what color?"[55]

Corvids have more sayings and words than any known wild animal. Conrad Lorentz (1903–1989) kept a raven that called him by the name – "Roah."[56] One of Bernd Heinrich's ravens that was kept in captivity learnt to say, "want to go outside," a phrase that Heinrich had used on a daily basis when he let the birds out of their aviary.[57] One of my favorite stories about talking ravens comes from Vesterålen, an archipelago situated in Nordland in northern Norway. Here a raven called "Oden," apparently named so after the famous Norse one-eyed god that had two ravens – Huginn and Muninn. Oden the raven was caught as a young chick and was kept in a cage at the courtyard of the farm. After a while, he started to talk and communicate, and soon had a rich vocabulary, including the names of the farmer and his children, and many

[52] Marzluff & Angell 2005, 216. This is also demonstrated among blue jays, see Ackerman 2016, 107.
[53] Kaplan 2015, 96–97.
[54] Darwin 1871, 59, cited in Ackerman 2016, 12.
[55] Pepperberg 2009.
[56] Cited after Marzluff & Angell 2005, 217.
[57] Heinrich 2006, 191–205.

curses that he often used in proper contexts, like when the local priest made his regular visit. He even learned to memorize songs. One of his favorites was the Norwegian national anthem. Oden called out "Fish, Fish!" when he saw people getting ready to go fishing, and when the bird was bored, he used to call out to the farmers dog – "Come Perkele!" – seemingly just to entertain himself. One day when Oden was playing around on the courtyard, a white-tailed eagle caught him. When he was carried away in the talons of the eagle to meet his one-eyed master, Oden called out to the people on the farm – "Farewell, Farewell!"[58]

There are, of course, differences between captured and trained parrots and birds, like Alex and Oden, and birds in the wild, when they are in their own element. That said, wild rooks and ravens possess an impressive natural vocabulary.[59] Following Porphyrius, the soothsayers of his day in Rome used sixty-four different vocalizations of ravens to predict coming events.[60] Recent studies of wild ravens in the mountain areas of Switzerland have recorded more than thirty-four different intonations. Of these, fifteen were individual vocalizations, eleven were gendered, and six were described as a local dialect that could not be found in nearby raven populations. Similar studies made by Heinrich in Maine, in the USA, documented eighty-one different calls among wild ravens.[61] Heinrich, one of the leading researchers of corvids in the world, concludes that some of these calls were used by individual birds, others collectively, many of them can be described as "phrases" that are used for different purposes in specific contexts, and detected dialects between groups of ravens show that their "language" is cultural transmitted.[62]

In addition to this, many humans and avians are known to share a common cultural history. Commensal relationships are well attested for a long line of species – not least between humans and corvids such as ravens, rooks, carrion crows, and hooded crows.[63] The most famous example is the commensal relationship that developed between the greater honeyguide and the Boran cattle herders in northern Kenya in Africa. As their name suggests, these birds have developed a flair for sweets such as honeycomb and beeswax. Through its developed senses, the greater honeyguide easily locates beehives, which are often found in narrow fissures, tree hollows, or termite mounds, but the birds have problems obtaining the honey. The bees are very hostile and can

[58] Bergengren 2015, 94, for other gifted and talking corvids, see Marzluff & Angell 2012, 41–47.
[59] On rooks and jackdaws' vocalization, see Cocker 2016, 85–95.
[60] Ingersoll 1923, 155, Olaus Magnus 2010, 890, also claim that sixty-four different calls was known for ravens in North Europe, but the latter might be built on the former, see Magnus 1555, 1996–1998.
[61] Heinrich 1989.
[62] Heinrich 2006, 195–196.
[63] Savage 1995; Heinrich 2006; Marzluff & Angell 2005, 2012; Serjantson 2009.